NOP AND PUBLIC COMMENTS

NOTICE OF PREPARATION

FOR THE

SOUTH LATHROP SPECIFIC PLAN EIR

JANUARY 2013

Prepared for:

City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330
(209) 941-7298

Prepared by:

De Novo Planning Group
4630 Brand Way
Sacramento, CA 95819
(916) 580-9818

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

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NOTICE OF PREPARATION

TO: State Clearinghouse
State Responsible Agencies
State Trustee Agencies
Other Public Agencies
Interested Organizations

FROM: Charlie Mullen, Principal Planner
City of Lathrop
390 Towne Centre Dr
Lathrop, CA 95330
(209) 941-7298

SUBJECT: Notice of Preparation – South Lathrop Specific Plan EIR

EIR CONSULTANT

Steve McMurtry, Principal Planner
De Novo Planning Group
4630 Brand Way
Sacramento, CA 95819
Phone: (916) 580-9818

An Initial Study has been prepared for the proposed project and is attached to this Notice of Preparation (NOP). The Initial Study lists those issues that will require detailed analysis and technical studies that will need to be evaluated and/or prepared as part of the EIR. The EIR will consider potential environmental effects of the proposed project to determine the level of significance of the environmental effect, and will analyze these potential effects to the detail necessary to make a determination on the level of significance.

Those environmental issues that have been determined to be less than significant will have a discussion that is limited to a brief explanation of why those effects are not considered potentially significant. In addition, the EIR may also consider those environmental issues which are raised by responsible agencies, trustee agencies, and members of the public or related agencies during the NOP process.

We need to know the views of your agency or organization as to the scope and content of the environmental information germane to your agency's statutory responsibilities or of interest to your organization in connection with the proposed project. Specifically, we are requesting the following:

1. If you are a public agency, state whether your agency will be a responsible or trustee agency for the proposed project and list the permits or approvals from your agency that will be required for the project and its future actions;
2. Identify significant environmental effects and mitigation measures that you believe need to be explored in the EIR with supporting discussion of why you believe these effects may be significant;
3. Describe special studies and other information that you believe are necessary for the City of Lathrop to analyze the significant environmental effects, alternatives, and mitigation measures you have identified;

4. For public agencies that provide infrastructure and public services, identify any facilities that must be provided (both on- and off-site) to provide services to the proposed project;
5. Indicate whether a member(s) from your agency would like to attend a scoping workshop/meeting for public agencies to discuss the scope and content of the EIR's environmental information;
6. Provide the name, title, and telephone number of the contact person from your agency or organization that we can contact regarding your comments.

Due to the time limits mandated by State law, your response must be sent and received by the City of Lathrop by the following deadlines:

- For responsible agencies, not later than 30 days after you receive this notice.
- For all other agencies and organizations, not later than 30 days following the publication of this Notice of Preparation. The 30 day review period ends on February 25, 2013.

If we do not receive a response from your agency or organization, we will presume that your agency or organization has no response to make.

A responsible agency, trustee agency, or other public agency may request a meeting with the City of Lathrop or its representatives in accordance with Section 15082(c) of the CEQA Guidelines. A public scoping meeting will be held during the public review period as follows:

1. February 6, 2013 at 6:00pm in the City of Lathrop Council Chambers located at 390 Towne Centre Dr. Lathrop, CA 95330

Please send your response to Charlie Mullen, Principal Planner at the City of Lathrop, 390 Towne Centre Dr. Lathrop, CA 95330. If you have any questions, please contact Charlie Mullen, Principal Planner at (209) 941-7298.

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INITIAL STUDY CHECKLIST

PROJECT TITLE

South Lathrop Specific Plan (SLSP)

LEAD AGENCY NAME AND ADDRESS

City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330

CONTACT PERSON AND PHONE NUMBER

Charlie Mullen, Principal Planner
City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330
(209) 941-7298

PROJECT SPONSOR'S NAME AND ADDRESS

Clifton Taylor, Vice President
Richland Communities, Inc.
1508 Eureka Road, Suite 140
Roseville, CA 95661
(916) 782-3330

INTRODUCTION

The South Lathrop Specific Plan (SLSP) provides a comprehensively planned development of approximately 315 acres including a plan for systematically constructed infrastructure and services to adequately and responsibly support development. Proposed land use designations within the Plan Area include commercial office, limited industrial, open space and related public facilities.

The majority of the property owners are participating in the preparation of the Specific Plan. Participating owners comprise 273.6 acres or 87 percent of the plan area. There are 25.9 acres of non-participating property owners. Non-participating properties will be included in the plan and pre-zoned to Limited Industrial, generally consistent with the current use in the County and conforming to the City of Lathrop General Plan. An additional 15.5 acres of the Plan Area are owned by the State of California, Reclamation District No. 17 and County of San Joaquin, including portions of the San Joaquin River RD 17 levee system and existing Madruga Road right-of-way.

PROJECT LOCATION AND SETTING

PROJECT LOCATION

The project site is located in San Joaquin County, south of State Route (SR) 120, north and west of the Union Pacific Railroad (UPRR) and east of the San Joaquin River (Figure 1 and 2). The

Plan Area, located to the southeast of the City of Lathrop, is within the City's Sphere of Influence and General Plan area, and is identified as the southern portion of the City's Sub-Plan Area 1. The land use is currently designated as Limited Industrial within the City of Lathrop's General Plan and has been identified by the City of Lathrop to receive services from the City in the 2009 Municipal Services Review.

PROJECT SETTING

The current uses in the SLSP area and adjacent lands are a mix of agricultural and industrial uses. Crop types include alfalfa and winter wheat. No lands are under Williamson Act contracts. The existing access to the plan area is from SR 120 and Yosemite Avenue/Guthmiller Road. A frontage road (Madruga Road) currently provides access to both the agriculture and industrial sites.

The Plan Area is one of the last pockets of unincorporated San Joaquin County within the vicinity, as the Plan Area is generally surrounded by built or approved projects that are within the cities of Lathrop or Manteca. The General Plans in the vicinity call for extensive urban development along I-5 and SR 120. Lands to the south and east of the property are either planned for development or under construction, transitioning from agricultural uses to residential, industrial and commercial uses.

The Plan Area has relatively flat terrain that varies between elevation 10 and 13 feet above sea level (NGVD29) (Figure 3). The UPRR rail lines are elevated along the south and eastern boundaries between elevation 24 and 31 feet. SR 120 is elevated along the northern boundary between elevation 20 and 50 feet. A levee is elevated along the western boundary at approximately 31 feet. High voltage power lines (115 and 60 Kilovolts), within Pacific Gas & Electric (PG&E) power line easements, traverse portions of the Plan Area running east/west and north/south. Figure 4 presents an aerial photo of the project site and the immediate surroundings.

The Plan Area is surrounded by a variety of existing land uses. To the northeast, is the Lathrop Gateway Business Park currently with industrial, agricultural, rural residential and service land uses. Under the Lathrop Gateway Business Park Specific Plan the area is designated and/or zoned to have Limited Industrial, Commercial Office, Service Commercial and Open Space. South of the Plan Area, in unincorporated San Joaquin County, is the Oakwood Lakes Subdivision. To the east, in Manteca, are developing lands including residential, commercial, business and public uses (including the regional Manteca Wastewater Quality Control Facility). The area to the west of the Plan Area is sand and gravel borrow area within unincorporated San Joaquin County. Slightly further to the west is the proposed River Islands development within the City of Lathrop.

PROJECT DESCRIPTION

PROJECT OBJECTIVES

The principal objective of the proposed project is the approval and subsequent implementation of the South Lathrop Specific Plan (SLSP). Implementation would involve the development of

potential uses under the land use designations of commercial office, limited industrial and open space.

The quantifiable objectives of the proposed project include the development of up to 222 acres of limited industrial, 10 acres of commercial office, 31.5 acres of open space, 36 acres of related public facilities and 15.5 acres of right-of-way at ultimate build out, with a projected potential of approximately 4,288,918 square feet of employment-generating development.

The South Lathrop Specific Plan has developed the following objectives for the proposed project:

- Commercial Office: Establish a core of regional and local serving business and commercial uses that capitalize upon the visibility and access provided by SR 120, and augment City sales tax revenue.
- Employment Opportunities: Provide for local and regional employment opportunities that take advantage of the Plan Area's high level of accessibility, allow for the expansion of the City's economic base, help create a jobs/housing balance, and reduce the commute for regional residents.
- Provide access to the San Joaquin River Trail, connecting to the City of Lathrop.
- Transportation: Provide an efficient circulation system that includes not only automobile transportation but also pedestrian, bicycle and public transit.
- Public Facilities and Services: Provide infrastructure and services that meet City standards, integrate with existing and planned facilities and connections and do not diminish services to existing residents of the City.
- Phasing: Establish a logical phasing plan designed to ensure that each phase of development would include necessary public improvements required to meet City standards.
- Environmental Mitigation: Create a "self-mitigating" plan that, to the extent practical incorporates environmental mitigation measures into project design.
- Economic Contribution: Strengthen the City's economic base through South Lathrop Specific Plan's job creation; development related investment; disposable income from future employees; and increased property, sales, and transient occupancy taxes.

ENTITLEMENTS

South Lathrop Specific Plan

The primary element of the proposed project is to request City approval of the South Lathrop Specific Plan (SLSP). Adoption of the proposed SLSP will involve a series of related actions, potentially including, but not limited to, a general plan amendment, pre-zoning and zoning code amendment, annexation, subdivision, a development agreement and a CEQA analysis. In addition, as development projects are proposed within the Plan Area, site development reviews and other site specific approvals will be requested. The proposed SLSP and General Plan Amendment are required to maintain consistency between the planned development and the City of Lathrop's land use planning documents and implementing ordinances as well as with applicable state ordinances.

The SLSP would provide a planning framework and regulatory tool for the future urban development of the Plan Area. Authority for the preparation of specific plans is found in California Government Code Sections 65450-65457; the SLSP has been drafted to conform to these requirements.

The SLSP has been organized into eight chapters as well as the appendices that contain the following information:

- Chapter 1: *Executive Summary:* A brief description of the specific plan content.
- Chapter 2: *Site Context:* The specific plan context and overall setting.
- Chapter 3: *Land Use:* A detailed description of the Land Use Plan and lists policies and development standards for each proposed land use.
- Chapter 4: *Transportation:* A detailed overview of the existing and proposed transportation system.
- Chapter 5: *Design Guidelines:* Provides the site, landscape and architectural standards for each land use.
- Chapter 6: *Infrastructure:* Summarizes the proposed infrastructure for sewer, water and drainage within and serving the Plan Area.
- Chapter 7: *Financing Plan:* The projects financing plan summarizes the phasing of backbone infrastructure and roadways; the construction costs of major facilities; fee structures and funding programs.
- Chapter 8: *Implementation & Administration:* Provides the procedures and provisions for implementation of the specific plan, including the handling of subsequent entitlements and amendments to the plan as well as financing of required improvements.
- Appendix: Includes several supporting documents including the General Plan Consistency Analysis, South Lathrop Zoning Ordinance and development regulations.

The various land use designations, improvement plans, guidelines and standards as well as other provisions of the plan will provide the primary basis for the City's evaluation of future development projects within the Plan Area. This includes the review and approval of land subdivisions, site plans, and building designs for the potential commercial office and limited industrial uses. It is anticipated that the specific plan will be adopted by City ordinance.

The SLSP will be reviewed under the California Environmental Quality Act (CEQA) in the Environmental Impact Report (EIR) and is considered a "project" for CEQA purposes (Section 15161 of the State CEQA Guidelines). The City's intention in preparing a project EIR is that no further environmental analysis will be required for additional regulatory approvals following adoption of the specific plan absent grounds for further environmental review in a Negative Declaration, Subsequent EIR, a Supplemental EIR, or an Addendum EIR (Sections 15162-15164 of the State CEQA Guideline). This possible need for additional environmental documentation will be based on City review of individual site plan applications for their consistency with the specific plan at the time of the submittal.

Annexation

The proposed project would result in the annexation of a total of approximately 315 acres into the City of Lathrop. The parcels to be annexed are illustrated in Figure 5. The proposed annexation area is contiguous with the existing City boundary along most of the northern boundary of the Plan Area. The Plan Area consists of approximately 273.6 acres of lands controlled by the applicant that are participating properties in the Specific Plan. Approximately 25.9 acres, located in the northeast area of the site are not controlled by the applicant and are non-participating but would be annexed to the City of Lathrop. Annexation of the plan area lands would be City-initiated. In addition, land within the Lathrop Gateway Business Park, located to the north of the Plan Area, may also be annexed along with the SLSP. The Lathrop Gateway Business Park is a previously adopted specific plan for which an environmental impact report has been certified. To remain consistent with the recent annexations to the City of Lathrop, the Plan Area boundary is shown to the center of the San Joaquin River. These 10.5 acres are currently owned by the State of California. The existing right-of-way of Madruga Road, which is included within the Plan Area, is currently owned by the County of San Joaquin. This 5 acre parcel will be annexed into the City of Lathrop at the time of the annexation of the South Lathrop Specific Plan Area and converted to City of Lathrop ownership.

General Plan Amendments

City adoption of the SLSP would involve amendments to the land use designations of the Lathrop General Plan Map. The City's general plan designates the entire Plan area as Limited Industrial. This would be amended to include the commercial office designation within the Plan Area.

Prezoning and Zoning Text Amendments

The Plan Area is currently in the planning jurisdiction, and zoned for industrial and agricultural uses by the County of San Joaquin. The San Joaquin County Local Agency Formation Commission (LAFCO) will require the Plan Area be pre-zoned by the City in conjunction with the proposed annexation. The City's pre-zoning will follow the zoning and land use designations laid out in the SLSP. The pre-zoning would go into effect upon annexation into the City of Lathrop. The proposed project may include zoning text amendments that enable flexibility in the design and construction of uses proposed under the SLSP.

Subdivision

The proposed project may include the subdivision of land into two or more parcels to enable the sale, lease, and/or financing of individual components of the SLSP. Any subdivision of land would be subject to the Subdivision Map Act and the City of Lathrop.

Development Agreements

The proposed project may include a request for approval of one or more Development Agreements (DA) governing the relationship between the City and the SLSP applicants. A primary purpose of the DA may be to regulate development density and intensity. The DA may also be used to establish other City/applicant agreements related to the project. Such agreements may include commitments to project entitlements and development standards as

well as any other administrative and/or financial relationships that may be defined during the review of the specific plan. These relationships have not been defined at present and would be developed during the review of the SLSP and incorporated into the DA prior to project approval.

DEVELOPMENT DETAILS

The Land Plan

Table 1 provides a summary of the proposed land uses. The numbers of acres and therefore square footage of developable area may vary slightly depending on more accurate survey information and the final alignment of roadways; however, the total acreages and building square footage projects establish an approximate carrying capacity for the Plan Area.

The Plan Area has three distinct land use designations, Office Commercial, Limited Industrial and Open Space. The Land Use Plan proposes approximately 225 acres of limited industrial, 10 acres of commercial office, approximately 31.5 acres of open space and 36 acres of related public facilities. The Land Use Summary (Table 1) shows the land uses with proposed acreages, Floor Area Ratio (FAR) and the Maximum Square Footage allowed for each land use.

Table 1 Land Use Summary

Land Use	Acreage (Net) [1]	Total Sq. Ft. Per Land Use	FAR Range	FAR Target	Max. Sq. Ft.
Commercial Office (CO)	10	435,600	.20 to .60	.30	130,680
Limited Industrial (LI)	222	9,670,320	.15 to .65	.43	4,158,238
Open Space (OS)					
River/Levee Park	21				
River	10.5				
Public/Quasi Public Facilities (Recycled/Storm Water Basin)	36				
Subtotal	299.5				
Existing Roads[2]	5				
Major Roads[2]	10.5				
TOTAL	**315**				**4,288,918**

[1] *Net acreage does not include existing/major roadways*

[2] *Major and existing roads include pedestrian and bicycle multi-use paths within the right-of-way*

Commercial Office

The Commercial Office area has been located close to SR 120 corridor in order to capitalize on the vehicular access and visibility provided by this main thoroughfare. Office and Commercial uses will provide regional as well as local serving business/professional workspace. Specific users for this land use might include a full range of large or small commercial operations, professional and administrative support services, administrative office, financial institutions, recreational facilities, eating establishments, hotels/motels, incubator/research and development space, and the like. The Commercial Office land use encompasses 10 acres of the South Lathrop Specific Plan Area and can accommodate an estimated maximum of 130,680 square feet of gross leasable space.

Limited Industrial

The majority of the Plan Area is comprised of Limited Industrial uses. The Limited Industrial land use is envisioned as a major employment-generating land use, the Limited Industrial would allow for a broad range of use types including industrial, manufacturing, warehousing/distribution, office, retail sales, retail services, trailer and recreational vehicle sales, research and development, equipment and machinery repair, sales, rental and other such uses and services necessary to support them. For the purposes of truck transport of goods, easy access to the highway from Yosemite Avenue is essential. The SLSP provides a chart with the full range of permitted uses under this land use category. The Limited Industrial use comprises 222 acres and can accommodate up to an estimated maximum of approximately 4,158,238 square feet of gross leasable space.

Open Space

The open space along the San Joaquin River provides a buffer for the levee and a connection to the City's river park corridor and trail system, established within Mossdale Village and Central Lathrop. This trail system will be continued within the SLSP, with a direct connection occurring underneath I-5 as part of RD-17's maintenance road. The Open Space land use designation also includes the San Joaquin River frontage and area to the centerline of the river.

Public/Quasi Public Facilities

The Public/Quasi Public Facilities land use designation includes the storm water and recycled water basins required for storage and treatment of the stormwater and recycled water within the Plan Area.

Circulation Plan and Transit Services

The SLSP proposes a street network that provides for the efficient access and circulation for the businesses within the Plan Area as well as visitors. Access to the site is gained from the SR-120/Yosemite-Guthmiller interchange and via Yosemite Avenue. Madruga Road, a frontage road within the Plan Area will remain, providing access to the existing uses.

A 4 lane arterial will extend from Guthmiller Road and into the Plan Area. The arterial will provide access to both the commercial office uses and the industrial uses. A local industrial street will be provided in the southern portion of the site for additional access to the industrial uses and to the open space and levee. A 20' public access easement is proposed to be provided between Madruga Road and the local industrial road for emergency vehicle access; however, the City will evaluate the proposed project to determine if there may be a need for a public street.

The roads within the Plan Area will provide wide sidewalks to allow for pedestrian and bicycle circulation. Pedestrian access to the San Joaquin River Trail will be provided through the industrial land use along the powerline corridor from the end of the local industrial street.

Public Services & Infrastructure

The provision of public services and the construction of onsite and offsite infrastructure improvements will be required to accommodate development proposed by the SLSP. It is an

objective of the SLSP to provide services and infrastructure that meet City standards, integrate with existing and planned facilities and connections, and do not diminish services to existing residents or businesses within the City. The South Lathrop Specific Plan Area was included in the City of Lathrop's Municipal Service Review (updated in 2009) and has been planned to be served by the City of Lathrop. The final design of all onsite and offsite infrastructure improvements is subject to the review and approval of the City of Lathrop.

Open Space: The City of Lathrop does not have adopted park/open space dedication or fee requirements for nonresidential development. Although open space and recreation facilities are not required or mandated, the SLSP proposes to construct outdoor amenities.

Police Protection: Police protection services are proposed to be provided by the City of Lathrop Police Department, which contracts with the San Joaquin County Sheriff's Department for police protection services. The Lathrop Police Department acts as a division of the Sheriff's Department, with those deputies assigned to the City only working in the City limits and receiving specialized training reflective of the needs of an incorporated city.

Animal Services: Animal services are proposed to be provided by the City of Lathrop. Animal Services Officers protect the health and safety of humans and animals, and are responsible for enforcing local and state laws regarding animals and their humane treatment.

Fire Protection: Fire protection services are proposed to be provided by the Lathrop-Manteca Fire Protection District (LMFPD). The SLSP is within the service area of the LMFPD. The District has four fire stations, two of which are located within the City of Lathrop.

Potable Water Supply: Potable water is proposed to be supplied to the SLSP by the City of Lathrop with funding to be provided by the developers. The proposal anticipates the provision of potable groundwater from an expansion of the City's well field and potable surface water from Phase 1 and/or the Phase 2 expansion of the South County Surface Water Supply Program (SCSWSP) by the South San Joaquin Irrigation District (SSJID). The provision of potable water is subject to the approval of water purveyor.

Potable Water Storage and Distribution: Potable water storage and distribution is proposed to be provided to the SLSP by extending the City's existing pipe network into the Plan Area generally consistent with the City Master Utility Plan. The proposal is to construct and/or contribute fees toward the SLSP's proportional share of water storage as specified in the City Master Utility Plan. The final design of all onsite and offsite infrastructure potable water storage and distribution improvements is subject to the review and approval of the City of Lathrop.

Wastewater Treatment: Wastewater generated by the SLSP is proposed to be treated by future expansions of the City of Lathrop's treatment plant, Water Recycling Plant #1 (WRP-1). Alternatively, the wastewater could be treated at the Regional Water Quality Control Facility treatment plant located in the City of Manteca. On an interim basis wastewater may be treated at the City of Lathrop's Crossroads Treatment Plant. The provision of wastewater treatment is subject to the review and approval by the City of Lathrop and/or wastewater treatment plant owner/operator.

Wastewater Disposal: If treatment occurs at WRP-1, disposal land will be required. Disposal land consists of lined seasonal storage basins and irrigated land application areas. Potential sites exist within the Plan Area and within the northern area of the City of Lathrop. The disposal sites will be subject to approval from the RWQCB. Disposal land would not be required if treatment occurs at the regional treatment plant in the City of Manteca.

Wastewater Collection and Conveyance: The collection and conveyance system will consist of gravity pipes, a pump station and a forcemain. The pump station will be sized for the build-out condition of the SLSP and will be located within the Plan Area. The forcemain will connect the pump station to one of the selected treatment plants options. The final design of all onsite and offsite wastewater collection and conveyance infrastructure improvements is subject to the review and approval of the City of Lathrop.

Recycled Water: Recycled water distribution pipes are proposed to be extended from the City of Lathrop into the Plan Area. Public landscaping within the street right-of-way may utilize the recycled water for irrigation to the extent allowed by the City of Lathrop's Waste Discharge Permit issued by the RWQCB. The recycled water pipes are proposed to connect to the planned Recycled Water Storage Basin within the Plan Area. The final design of all onsite and offsite recycled water infrastructure improvements is subject to the review and approval of the City of Lathrop.

Storm Drain: The drainage collection system within the Plan Area is proposed to consist of gravity pipes, storage basins, a pump station, forcemains and a new outfall to the San Joaquin River. The outfall will be sized consistent with the City's Master Storm Drain Plan for the southeast area of the City of Lathrop (the outfall will accommodate future development within the Gateway Business Park and along the McKinley corridor). The collection system will be designed to contain the 10-year storm event within the pipe system and basins while maintaining one foot of freeboard. The streets will be designed in combination with the pipe system to convey the 100-year storm event to the basins and pump station in accordance with City standards. To accommodate a potential emergency condition of the river being at flood stage for an extended period of time the overall site grading will be designed to contain the rainfall from a 100-year event onsite, below finish building floor elevations, without any pumping to the river (this provision assumes that pumping to the river may be severely restricted under emergency flood conditions). Early phases of development are proposed to rely on temporary percolation basins in order to delay the construction of the outfall. As development progresses, the new outfall would be constructed along with the proposed pump station and forcemain. An interim condition of pumping from the Plan Area into the existing Crossroads Business Park drainage system may be utilized to further delay the construction of the new outfall, subject to City approval. The final design of all onsite and offsite storm drain infrastructure improvements is subject to the review and approval of the City of Lathrop.

Stormwater Quality: Stormwater quality Best Management Practices (BMPs) for the Plan Area will be designed in accordance with the City of Lathrop's Phase II National Pollutant Discharge Elimination System Permit (NPDES) issued by the RWQCB.

Electric, gas, cable television and phone: Dry utility services are proposed to be extended to the Plan Area from existing systems within the City of Lathrop. The existing high voltage powerlines within the Plan Area are proposed to remain in-place within easements granted to PG&E. Parking and/or storm drain storage may occur within the easements subject to PG&E approval.

Phasing: Development of the project along with the infrastructure is proposed to be phased. Phasing is likely to occur based on market conditions, potential offsite traffic mitigation improvements and/or storm drain basin and outfall requirements. However, phasing will be designed to provide adequate improvements to mitigate all impacts of each phase.

OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED (E.G., PERMITS, ETC.)

The City of Lathrop will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050. Actions that would be required from the City include, but are not limited to the following:

Other governmental agencies that may require approval include, but are not limited to, the following:

- California Department of Fish and Game (CDFG): Stream alteration agreements
- California Department of Transportation (Caltrans): Encroachment permits
- Central Valley Water Quality Control Board (RWQCB): Section 401 water quality certification in association with Section 404 permits
- San Joaquin Local Agency Formation Commission (LAFCo): Annexation
- San Joaquin Council of Governments (SJCOG): Coverage/Incidental Take Authorization under the San Joaquin County Multi Species Habitat Conservation and Open Space Plan
- San Joaquin Valley Unified Air Pollution Control District (SJVAPCD): Indirect Source Rule Permit, Authority to Construct, Permit to Operate for stationary sources of air pollution (auxiliary power, storm drainage pump station)
- U.S. Army Corps of Engineers (ACOE): Section404 permits

SOUTH LATHROP SPECIFIC PLAN

Figure 1. Regional Map

0 5 10 20

Miles

1:1,250,000

Data source: California Spatial Information Library
Map date: January 9, 2013

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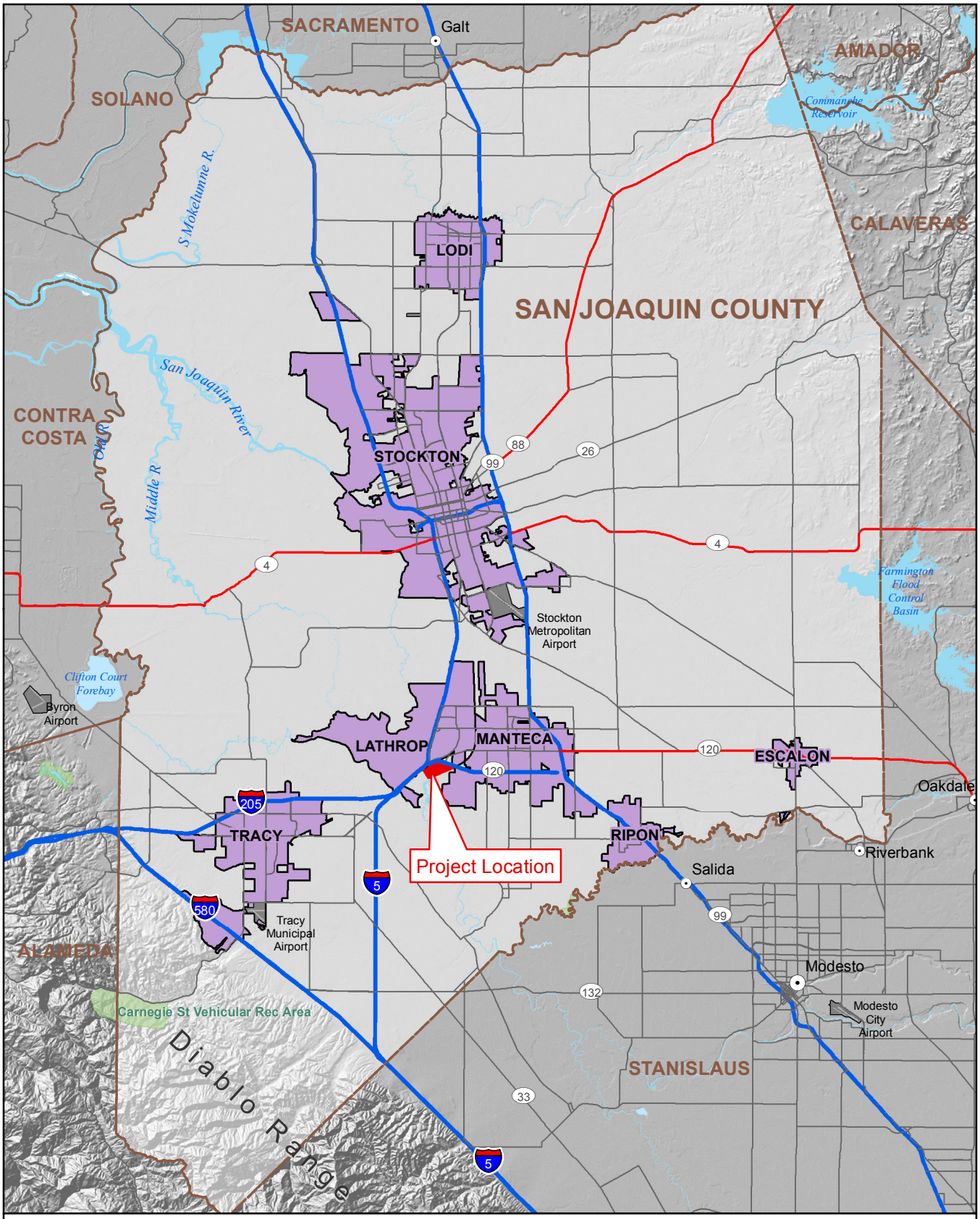

SOUTH LATHROP SPECIFIC PLAN

Figure 2. Vicinity Map

Data sources: California Spatial Information Library, ESRI StreetMap North America, San Joaquin County GIS. Map date: January 9, 2013.

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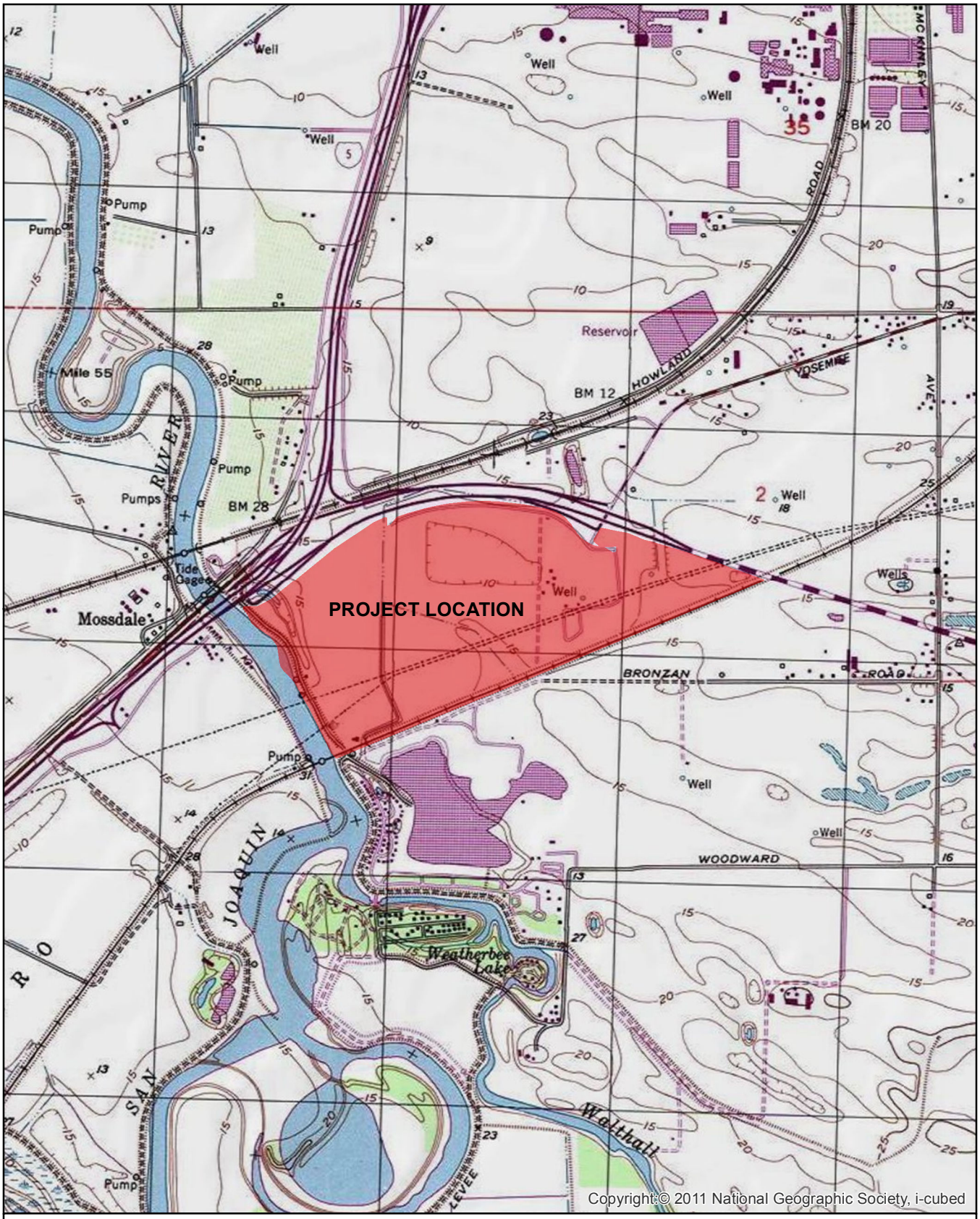

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Feet

1:24,000

Data sources: ArcGIS Online USA Topo Maps.
Map date: January 9, 2013.

SOUTH LATHROP SPECIFIC PLAN

Figure 3. USGS Topographic Map

Lathrop Quadrangle

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Data sources: ArcGIS Online BING aerial images with labels web mapping service. Map date: January 9, 2013.

SOUTH LATHROP SPECIFIC PLAN

Figure 4. Aerial Photo

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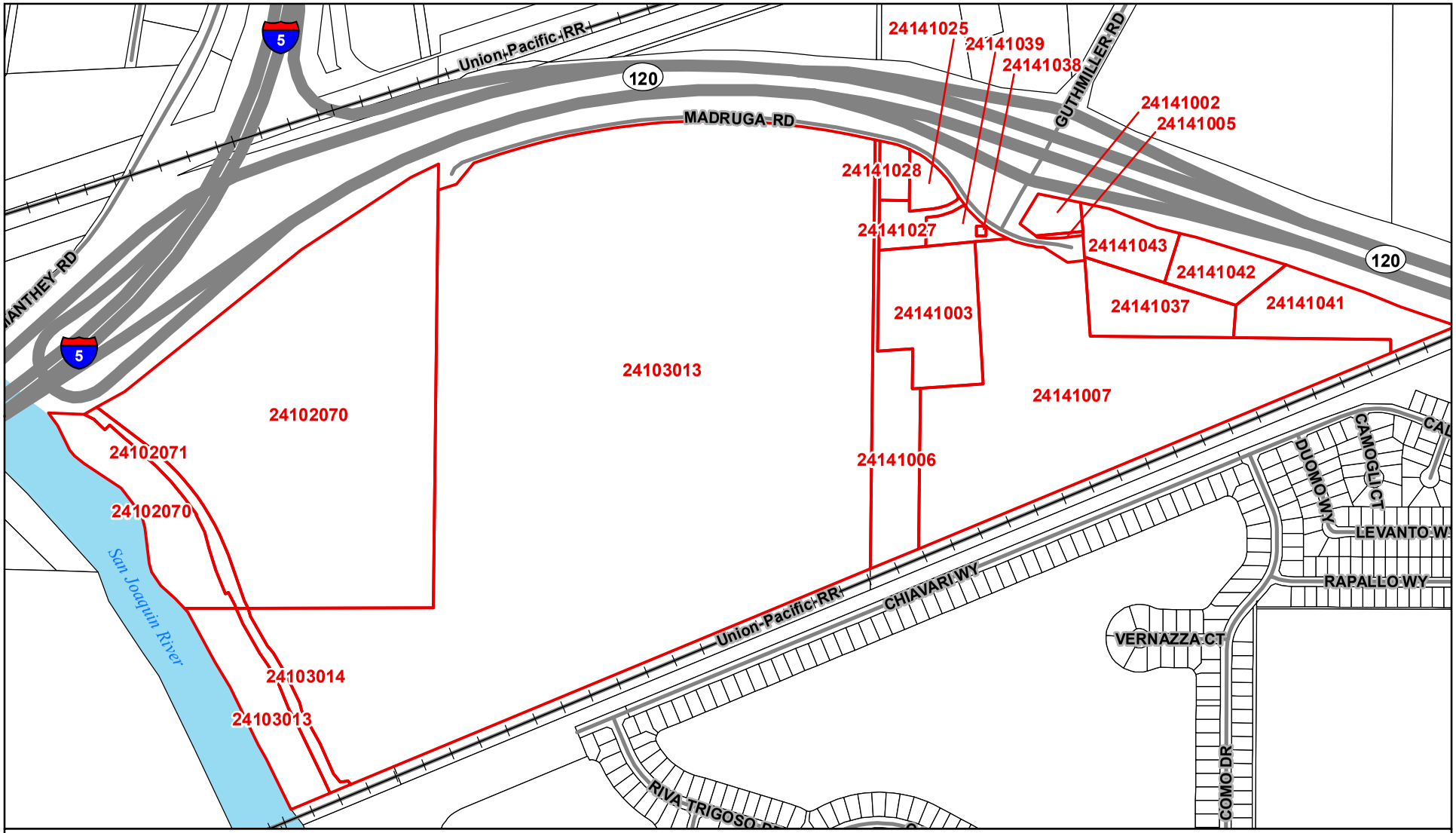

SOUTH LATHROP SPECIFIC PLAN

Figure 5. Assessor's Parcel Map

Data sources: San Joaquin County GIS. Map date: January 10, 2013.

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ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

X	Aesthetics	X	Agriculture and Forest Resources	X	Air Quality
X	Biological Resources	X	Cultural Resources	X	Geology/Soils
X	Greenhouse Gasses	X	Hazards and Hazardous Materials	X	Hydrology/Water Quality
X	Land Use/Planning	X	Mineral Resources	X	Noise
X	Population/Housing	X	Public Services	X	Recreation
X	Transportation/Traffic	X	Utilities/Service Systems	X	Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
X	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Charlie Mallen 1/22/13

Signature Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) Earlier Analysis Used. Identify and state where they are available for review.

    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:

    a) The significance criteria or threshold, if any, used to evaluate each question; and

    b) The mitigation measure identified, if any, to reduce the impact to less than significance

ENVIRONMENTAL CHECKLIST

This section of the Initial Study incorporates the most current Appendix "G" Environmental Checklist Form, contained in the CEQA Guidelines. Impact questions and responses are included in both tabular and narrative formats for each of the 18 environmental topic areas.

I. AESTHETICS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Have a substantial adverse effect on a scenic vista?	*X*			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	*X*			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	*X*			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	*X*			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c), d): It has been determined that the potential impacts on aesthetics caused by the proposed project will require a more detailed analysis in the environmental impact report. As such, the lead agency will examine each of the four environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project will have a potentially significant impact on aesthetics. At this point, a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will provide a discussion of viewsheds, proximity to scenic roadways and scenic vistas, existing lighting standards, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts on aesthetics. This section of the environmental impact report will identify applicable General Plan policies that protect the visual values located along public roadways and surrounding land uses, and will also address the potential for the project to substantially impair the visual character of the project vicinity. The analysis will address the proposed design and landscaping plans developed by the applicant and provide a narrative description of the anticipated changes to the visual characteristics of the project area as a result of project implementation and the conversion of the existing on-site land uses to an urbanized use. The analysis will address potential impacts associated with light spillage onto adjacent properties during nighttime activities.

II. AGRICULTURE AND FOREST RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	X			
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
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))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), e): Based on the agricultural resources located on the project site and in the region, it has been determined that the potential impacts on agriculture caused by the proposed project will require a more detailed analysis in the environmental impact report. As such, the lead agency will examine each of the three environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project will have a potentially significant impact on agriculture. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will describe the character of the region's agricultural lands, including maps of prime farmlands, other important farmland classifications, and protected farmland (including Williamson Act contracts). The County Agricultural Commissioner's Office and the State Department of Conservation will be consulted and their respective plans, policies, laws, and regulations affecting agricultural lands will be presented within the analysis.

The analysis will include the application of The Land Evaluation and Site Assessment (LESA) model. The LESA model is a point-based approach for rating the relative importance of agricultural land resources based upon specific measurable features. The California LESA Model was developed to provide lead agencies with an optional methodology to ensure that

potentially significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process (Public Resources Code Section 21095), including in California Environmental Quality Act (CEQA) reviews.

The environmental impact report will include thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to offset the loss of agricultural lands and Williamson Act cancellations as a result of project implementation. Mitigation will include application of the City of Lathrop Agricultural Mitigation Fee Ordinance (Municipal Code Chapter 3.40).

Responses c), d): There is no forest resources located on the project site, or within the City of Lathrop. This CEQA topic is not relevant to the proposed project and does not require further analysis.

III. AIR QUALITY

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Conflict with or obstruct implementation of the applicable air quality plan?	X			
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
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)?	X			
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), c), d), e): Based on the current air quality conditions in the air basin it has been determined that the potential impacts on air quality caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the five environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on air quality. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include an air quality analysis that presents the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts on air quality. The project site is located within the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). We will consult with the SJVAPCD regarding the project's potential to cause impacts, and the applicability of the SJVAPCD's Rules and Regulations. The air quality analysis will include the following:

- Regional air quality and local air quality in the vicinity of the project site will be described. Meteorological conditions in the vicinity of the project site that could affect air pollutant dispersal or transport will be described. Applicable air quality regulatory framework, standards, and significance thresholds will be discussed.
- Short-term (i.e., construction) increases in regional criteria air pollutants will be quantitatively assessed. The ARB-approved CalEEMod computer model will be used

to estimate regional mobile source and particulate matter emissions associated with the construction of the proposed project.

- Long-term (operational) increases in regional criteria air pollutants will be quantitatively assessed for area source, mobile sources, and stationary sources. The ARB-approved CalEEMod computer model will be used to estimate emissions associated with the proposed project. Exposure to odorous or toxic air contaminants will be assessed through a screening method as recommended by the SJVAPCD.
- Local mobile-source CO concentrations will be assessed through a CO screening method as recommended by the SJVAPCD. Mobile source CO concentrations will be modeled for signalized intersections expected to operate at unacceptable levels of service. If the screening method indicates that modeling is necessary, upon review of the traffic analysis, CO concentrations will be modeled using the Caltrans-approved CALINE4 computer model.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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 U.S. Fish and Wildlife Service?	X			
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 US Fish and Wildlife Service?	X			
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?	X			
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?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	X			
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c), d), e), f): Based on the documented special status species, sensitive natural communities, wetlands, waters of the US, and other biological resources in the region, it has been determined that the potential impacts on biological resources caused by the proposed project will require a detailed analysis. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on biological resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will provide a summary of local biological resources, including descriptions and mapping of plant communities, the associated plant and wildlife

species, and sensitive biological resources known to occur, or with the potential to occur in the project vicinity. The project site is within the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). We will consult with SCJOG, Inc. and incorporate the SJMSCP incidental take and minimization measures provided for coverage of the project site. The analysis will conclude with a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented in order to reduce impacts on biological resources and to ensure compliance with the federal and state regulations.

V. CULTURAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Cause a substantial adverse change in the significance of a historical resource as defined in '15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to '15064.5?	X			
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			
d) Disturb any human remains, including those interred outside of formal cemeteries?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c), d): Based on known historical and archaeological resources in the region, and the potential for undocumented underground cultural resources in the region, it has been determined that the potential impacts on cultural resources caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the four environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on cultural resources. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include an overview of the prehistory and history of the area, the potential for surface and subsurface cultural resources to be found in the area, the types of cultural resources that may be expected to be found, a review of existing regulations and policies that protect cultural resources, an impact analysis, and mitigation that should be implemented with each improvement project.

VI. GEOLOGY AND SOILS

	Potentially Significant Impact	*Less Than Significant with Mitigation*	*Less Than Significant Impact*	*No Impact*
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.	X			
ii) Strong seismic ground shaking?	X			
iii) Seismic-related ground failure, including liquefaction?	X			
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
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?	X			
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?	X			
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-e): It has been determined that the potential impacts from geology and soils will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact from geology and soils. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a review of existing geotechnical reports, published documents, aerial photos, geologic maps and other geological and geotechnical literature pertaining to the site and surrounding area to aid in evaluating geologic resources

and geologic hazards that may be present. The environmental impact report will include a description of the applicable regulatory setting, a description of the existing geologic and soils conditions on and around the project site, an evaluation of geologic hazards, a description of the nature and general engineering characteristics of the subsurface conditions within the project site, and the provision of findings and potential mitigation strategies to address any geotechnical concerns or potential hazards.

This section will provide an analysis including thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with geology and soils.

VII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b): Implementation of the proposed project could generate greenhouse gases (GHGs) from a variety of sources, including but not limited to vehicle trips, electricity consumption, water use, and solid waste generation. It has been determined that the potential impacts from greenhouse gas emissions by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact from greenhouse gas emissions. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a greenhouse gas emissions analysis pursuant to the requirements of Executive Order S-3-05 and The Global Warming Solutions Act of 2006 (AB 32). The analysis will follow the California Air Pollution Control Officers Association (CAPCOA) white paper methodology and recommendations presented in Climate Change & CEQA, which was prepared in coordination with the California Air Resources Board and the Governor's Office of Planning and Research as a common platform for public agencies to ensure that GHG emissions are appropriately considered and addressed under CEQA. This analysis will consider a regional approach toward determining whether GHG emissions are significant, and will present mitigation measures to reduce impacts. The discussion and analysis will include quantification of GHGs generated by the project as well as a qualitative discussion of the project's consistency with any applicable state and local plans to reduce the impacts of climate change. The De Novo team will work with City staff to implement a methodology and mitigation strategy that meets all legal requirements and is consistent with current City policies and preferences.

The environmental impact report will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with greenhouse gas emissions.

VIII. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	X			
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?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
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?	X			
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?				X
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?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	X			
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?			X	

RESPONSES TO CHECKLIST QUESTIONS

Responses a-d, g): It has been determined that the potential impacts from hazards and/or hazardous materials by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact from hazards and/or hazardous materials. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a review of existing environmental site assessments and any other relevant studies for the project site to obtain a historical record of environmental conditions. The analysis will also include a review of recent records and aerial photographs. A site reconnaissance will be performed to observe the site and potential areas of interest. Property owners/managers will be interviewed to gather information on the current and historical use of the properties. If environmental conditions are identified, mitigation measures, as applicable, will be identified to address the environmental conditions.

This section will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with hazards and hazardous materials.

Responses e-f): The proposed project is not located in the vicinity of an airport or private airstrip; therefore, it would not result in a safety hazard related to air traffic for people residing or working in the plan area. Implementation of the proposed project would have **no impact** relative to this environmental topic.

Responses h): The proposed project is not located in an area that is considered a high risk for wildfires. The proposed project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Implementation of the proposed project would have a **less than significant** impact relative to this environmental topic.

IX. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Violate any water quality standards or waste discharge requirements?	X			
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)?	X			
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?	X			
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?	X			
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?	X			
f) Otherwise substantially degrade water quality?	X			
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?	X			
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	X			
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?	X			
j) Inundation by seiche, tsunami, or mudflow?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-i): Flood hazards can result from intense rain, snowmelt, cloudbursts, or a combination of the three, or from failure of a water impoundment structure, such as a dam. Floods from rainstorms generally occur between November and April and are characterized by

high peak flows of moderate duration. Human activities have an effect on water quality when chemicals, heavy metals, hydrocarbons (auto emissions and car crank case oil), and other materials are transported with stormwater into drainage systems. Construction activities can increase sediment runoff, including concrete waste and other pollutants.

It has been determined that the potential impacts on hydrology and water quality caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the ten environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on hydrology and water quality. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will present the existing FEMA flood zones, levee protection improvements, reclamation districts, and risk of flooding on the project site and general vicinity. RD-17 will be consulted during the preparation of the environmental impact report. This section will present information regarding the 2009 Delta Act and requirements for a 200-year levee protection. RD-17 will be consulted to ensure that there is an appropriate setback/buffer from the levee to enable the construction of the 200-year levee. The timing and funding of the 200-year levee improvements by RD-17 will be discussed.

The environmental impact report will summarize onsite hydrology and hydraulic calculations under existing and proposed conditions. Some of the specific items to be reviewed include: land use classification; acreage calculations; runoff coefficients; time of concentration; and methodology. Calculations will be reviewed for reasonableness and consistency with the site plan and with the City's master plans.

The environmental impact report will evaluate the potential construction and operational impacts of the proposed project on water quality. This section will describe the surface drainage patterns of the project area and adjoining areas, and identify surface water quality in the project area based on existing and available data. This section will identify 303D listed impaired water bodies in the vicinity of the project site. Conformity of the proposed project to water quality regulations will also be discussed. Mitigation measures will be developed to incorporate Best Management Practices (BMPs), consistent with the requirements of the Central Valley Regional Water Quality Control Board (CVRWQCB) to reduce the potential for site runoff.

This section will provide an analysis including the methodology, thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with hydrology and water quality.

X. LAND USE AND PLANNING

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Physically divide an established community?	X			
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?	X			
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a-c): It has been determined that the potential land use and planning impacts caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of these environmental issues in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a detailed discussion of the project entitlements, including, but not limited to, the South Lathrop Specific Plan, general plan amendment, pre-zoning and zoning code amendment, annexation, subdivision, and a development agreement. The local, regional, state, and federal jurisdictions potentially affected by the project will be identified, as well as their respective plans, policies, laws, and regulations (including zoning), and potentially sensitive land uses. The Specific Plan will be evaluated for consistency with the City of Lathrop General Plan, the Zoning Ordinance, and other local planning documents. Planned development and land use trends in the region will be identified based on currently available plans. Reasonably foreseeable future development projects within the region will be noted, and the potential land use impacts associated with the project will be presented.

This section will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to ensure consistency with the existing and planned land uses.

XI. MINERAL RESOURCES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	X			
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a-b): It has been determined that the potential mineral resource impacts caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of these environmental issues in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a detailed discussion of the mineral resources documented on the project site and in the vicinity, Mineral Resource Zone mapping, history of mining in the region and vicinity, and local, state, and federal policies related to mineral resources and mining. This section will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented.

XII. NOISE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	X			
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	X			
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
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?	X			
f) 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 levels?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a), b), c), d), e), f): Based on existing and projected noise levels along roadways and airports, and associated with construction projects, it has been determined that the potential impacts from noise caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the six environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact from noise. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

The environmental impact report will include a noise study. The noise study will identify the noise level standards contained in the San Joaquin County and City of Lathrop General Plan Noise Elements which are applicable to this project, as well as any germane, state and federal standards. Continuous (24-hour) and short-term noise measurements will be performed on the project site and in the project vicinity in order to quantify existing ambient noise levels from existing noise sources, including Interstate 5, Highway 120, and the UPRR line. The noise study will provide an estimate of existing traffic noise levels adjacent to the project-area roadways

through application of accepted traffic noise prediction methodologies. Any significant noise sources other than local traffic within the project area will be identified and quantified through additional noise level measurements. The noise study will identify all significant noise impacts due to and upon development of the proposed project. The noise study will determine the land use compatibility of proposed industrial uses as it may affect existing noise sensitive receptors in the plan area and in the immediate vicinity. An assessment of construction noise impacts and potential mitigation measures will also be provided. The study will present appropriate and practical recommendations for noise control aimed at reducing any noise impacts.

The environmental impact report will include thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with noise.

XIII. POPULATION AND HOUSING

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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)?	X			
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	X			
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a-c): Growth inducement is statutorily required to be analyzed for all projects. The EIR will provide an analysis of the potential growth inducing impacts caused by the proposed project. Additionally, the analysis will include an evaluation of the potential to result in the displacement of residences. At this point the impact conclusion for this environmental topic is ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

XIV. PUBLIC SERVICES

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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:				
i) Fire protection?	X			
ii) Police protection?	X			
iii) Schools?	X			
iv) Parks?	X			
v) Other public facilities?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a) i-v: Implementation of the proposed project would result in increased demand for police and fire protection in the Plan Area. The project may also increase demand for local schools, park and other public facilities. It has been determined that the potential impacts from increased demands on public services caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the five environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on public services. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

During the preparation of the environmental impact report, the public service providers will be consulted in order to determine existing service levels in the project areas. This would include documentation regarding existing staff levels, equipment and facilities, current service capacity, existing service boundaries, and planned service expansions. Master plans from such public service providers and City policies, programs, and standards associated with the provision of public services will be presented in the environmental impact report.

The environmental impact report will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with public services.

XV. RECREATION

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	X			
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Response a-b): Implementation of the proposed project may lead to population growth, and may increase the use of existing recreational facilities in the City of Lathrop. It has been determined that the potential impacts from increased demands on recreation caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the lead agency will examine each of the environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on recreation. At this point a definitive impact conclusion for these environmental topics will not be made, rather all are considered ***potentially significant*** until a detailed analysis is prepared in the environmental impact report.

During the preparation of the environmental impact report, the recreation providers will be consulted in order to determine existing service levels in the project areas. This would include documentation regarding existing staff levels, equipment and facilities, current service capacity, existing service boundaries, and planned service expansions. Master plans from such recreation providers and City policies, programs, and standards associated with the provision of recreation will be presented in the environmental impact report.

The environmental impact report will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with recreation.

XVI. TRANSPORTATION/TRAFFIC

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
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?	X			
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?	X			
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?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
e) Result in inadequate emergency access?	X			
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?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-b, d-f): Based on existing and projected traffic volume levels along roadways, it has been determined that the potential traffic impacts caused by the proposed project will require a detailed analysis in the environmental impact report. As such, the City of Lathrop will examine each of the seven environmental issues listed in the checklist above in the EIR and will determine whether the proposed project has the potential to have a significant impact from traffic. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered **potentially significant** until a detailed analysis is conducted in the EIR.

The environmental impact report will describe existing and future traffic conditions and will identify the trips that will be generated by the project and the projected distribution of those trips on the roadway system. The EIR will analyze traffic impacts associated with the project under existing and cumulative conditions. Potential impacts associated with site access, on-site

circulation, and parking will also be addressed in the EIR. The following facilities will be analyzed under existing facilities:

Intersections

1. SR 120 EB Ramps/ Guthmiller Road
2. SR 120 WB Ramps/Guthmiller Road
3. Yosemite Avenue/D'Arcy Parkway
4. Yosemite Avenue/McKinley Avenue
5. Yosemite Avenue/Airport Way
6. Lathrop Avenue/McKinley Avenue
7. Louise Avenue/McKinley Avenue
8. Daniels Street/Airport Way
9. SR 120 WB Ramps/Airport Way
10. SR 120 EB Ramps/Airport Way
11. SR 120 WB Ramps/McKinley Avenue (Future)
12. SR 120 EB Ramps/ McKinley Avenue (Future)

Roadways

1. Guthmiller Road – SR 120 to Yosemite Avenue
2. Yosemite Avenue – Guthmiller Road to Airport

Freeway Facilities

1. EB SR 120 merge with I-5 SB off-ramp
2. EB SR 120 between I-5 and Guthmiller Road
3. EB SR 120 diverge at Guthmiller Road
4. EB SR 120 merge at Guthmill8er Road
5. EB SR 120 between Guthmiller Road and Airport Way (Existing)
6. EB SR 120 diverge at Airport Way
7. EB SR 120 merge at Airport Way
8. EB SR 120 between Airport Way and Union Road
9. WB SR 120 between Union Road and Airport Way
10. WB SR 120 diverge at Airport Way
11. WB SR 120 merge at Airport Way
12. WB SR 120 between Airport Way and Guthmiller Road (Existing)
13. WB SR 120 diverge at Guthmiller Road
14. WB SR 120 merge at Guthmiller Road
15. WB SR 120 diverge with I-5 NB on-ramp
16. NB I-5 south of SR 120
17. NB I-5 merge with SR 120 WB
18. NB I-5 north of SR 120
19. SB I-5 north of SR 120
20. SB diverge at SR 120 EB
21. SB I-5 merge with SR 120 WB
22. SB I-5 south of SR 120
23. EB SR 120 between Guthmiller Road and McKinley Avenue (Future)
24. EB SR 120 diverge at McKinley Avenue (Future)

25. EB SR 120 merge at McKinley Avenue (Future)
26. EB SR 120 between McKinley Avenue and Airport Way (Future)
27. WB SR 120 between Airport Way and McKinley Avenue (Future)
28. WB SR 120 diverge at McKinley Avenue (Future)
29. WB SR 120 merge at McKinley Avenue (Future)
30. WB SR 120 between McKinley Avenue and Guthmiller Road (Future)

The project's trip generation will be estimated using trip generation rates from *Trip Generation, 9th Edition*, Institute of Transportation Engineers (2012). The project trip generation estimate will take into account pass-by and internal trips. The distribution of project trips will be estimated for existing and cumulative conditions based on existing travel patterns and the SJCOG travel demand model. Separate distribution assumptions will be made for existing and cumulative conditions to account for expected growth.

Impacts to the bicycle, pedestrian, rail, and transit facilities and services will be also evaluated. Significant impacts will be identified in accordance with the established criteria. Mitigation measures will be identified to lessen the significance of impacts.

The environmental impact report will provide an analysis including the thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented reduce impacts associated with transportation/traffic.

Responses c): The proposed project is not located in the vicinity of an airport or airstrip; therefore, it would not 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. Implementation of the proposed project would have **no impact** relative to this environmental topic.

XVII. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	X			
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?	X			
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	X			
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			
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 projects projected demand in addition to the providers existing commitments?	X			
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	X			
g) Comply with federal, state, and local statutes and regulations related to solid waste?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-g): Implementation of the Specific Plan would result in increased demands for utilities to serve the project. As such, the City of Lathrop will examine each of the seven environmental issues listed in the checklist above in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact to utilities and service systems. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered **potentially significant** until a detailed analysis is prepared in the EIR.

The environmental impact report will analyze wastewater, water, and storm drainage infrastructure, as well as other utilities (i.e. solid waste, gas, electric, etc.), that are needed to serve the proposed project. The wastewater assessment will include a discussion of the proposed collection and conveyance system, treatment methods and capacity at the treatment plants, disposal location(s) and methods, and the potential for recycled water use for irrigation. The environmental impact report will analyze the impacts associated with on-site and off-site

construction of the conveyance system, including temporary impacts associated with the construction phase. The proposed infrastructure will be presented. This will likely include a system of gravity pipes, pump station(s), and a forcemain(s). The environmental impact report will provide a discussion of the wastewater treatment plants that are within proximity to the project site, including current demand and capacity at these plants. The analysis will discuss the disposal methods and location, including environmental impacts and permit requirements associated with disposal of treated wastewater.

The storm drainage assessment will include a discussion of the proposed drainage collection system including impacts associated with on-site and off-site construction of the storm drainage system. The environmental impact report will identify permit requirements and mitigations needed to minimize and/or avoid impacts. The proposed infrastructure will be presented. This will likely include a system of gravity pipes, storage basin(s), pump station(s), forcemain(s), and an outfall to the San Joaquin River. This section will include a consistency review of the storm drainage system with the City's Master Storm Drain Plan for the southeast area of the City of Lathrop.

The environmental impact report will include a SB 610 Water Supply Assessment (WSA). The WSA will include water demand calculations for buildout of the proposed project based on land use information provided in the City's Urban Water Management Plan, which is being updated currently. The WSA will include an evaluation of available water supplies to meet the water demands. The Urban Water Management Plan update will serve as the basis for determining the available water supplies to meet the demands under normal, single-dry, and multiple-dry year conditions.

The WSA will identify whether the City has sufficient supplies and supply reliability to meet the water demand associated with the proposed project. The WSA for the proposed project will be prepared in accordance with the requirements of SB 610 as adopted in the California Water Code as Sections 10910-10915.

The environmental impact report will also address solid waste collection and disposal services for the proposed project. This will include an assessment of the existing capacity and projects demands. The assessment will identify whether there is sufficient capacity to meet the project demands.

The environmental impact report will provide thresholds of significance, a consistency analysis, cumulative impact analysis, and a discussion of feasible mitigation measures that should be implemented to reduce impacts associated with utilities and service systems.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	X			

RESPONSES TO CHECKLIST QUESTIONS

Responses a-c): It has been determined that the potential for the proposed project to: degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; eliminate important examples of the major periods of California history or prehistory; create cumulatively considerable impacts; or adversely affect human beings will require more detailed analysis in an environmental impact report. As such, the City of Lathrop will examine each of these environmental issues in the environmental impact report and will decide whether the proposed project has the potential to have a significant impact on these environmental issues. At this point a definitive impact conclusion for each of these environmental topics will not be made, rather all are considered **potentially significant** until a detailed analysis is prepared in the EIR.

REPORT PREPARERS

This document was prepared by De Novo Planning Group, Inc. of Sacramento under the direction of the City of Lathrop. De Novo Planning Group staff participating in document preparation included the following:

- Steve McMurtry, Principal Planner
- Ben Ritchie, Principal Planner
- Beth Thompson, Principal Planner

REFERENCES

California Department of Conservation Division of Mines and Geology. 2000. Publications of the SMARA Mineral Land Classification Project Dealing with Mineral Resources in California.

California Department of Conservation Division of Mines and Geology. 2012 AB 3098 SMARA Eligible List. Accessed online at www.conservation.ca.gov on January 9, 2013.

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Governor's Office of Planning and Research. 2001. The Planner's Guide to Specific Plans.

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MacKay and Somps. 2012. South Lathrop Specific Plan Owner Information Sheet.

MacKay and Somps. 2012. South Lathrop Specific Plan Land Plan.

MacKay and Somps. 2012. South Lathrop Specific Plan Project Description.

United States Geological Survey. Lathrop Quadrangle Map.

S J C O G, Inc.

555 East Weber Avenue ● Stockton, CA 95202 ● (209) 235-0600 ● FAX (209) 235-0438

San Joaquin County Multi-Species Habitat Conservation & Open Space Plan (SJMSCP)

SJMSCP RESPONSE TO LOCAL JURISDICTION (RTLJ)
ADVISORY AGENCY NOTICE TO SJCOG, Inc.

To: Charlie Mullen, City of Lathrop, Community Development Department

From: Laurel Boyd, SJCOG, Inc.

Date: January 30, 2013

Local Jurisdiction Project Title: Notice of Preparation of a Draft Environmental Impact Report and Notice of EIR Scoping Meeting South Lathrop Specific Plan Project

Assessor Parcel Number(s): Multiple

Local Jurisdiction Project Number: N/A

Total Acres to be converted from Open Space Use: 315 acres

Habitat Types to be Disturbed: Urban, Agricultural and Multi-Purpose Open Space Habitat Land

Species Impact Findings: Findings to be determined by SJMSCP biologist.

Dear Mr. Mullen:

SJCOG, Inc. has reviewed the Notice of Preparation for the South Lathrop Specific Plan of a Draft Environmental Impact Report. The proposed project consists of a request for City approval of the South Lathrop Specific Plan, associated applications and the annexation of the 315 acre specific plan area into the City of Lathrop. The Land Use Plan proposes approximately 10 acres of commercial office uses, 222 acres of limited industrial uses, and the remaining 83 acres in open space, roads and public facility sites. The project site is located in San Joaquin County, south of State Route 120, north and west of the Union Pacific Railroad and east of the San Joaquin River.

City of Lathrop is a signatory to San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). Participation in the SJMSCP satisfies requirements of both the state and federal endangered species acts, and ensures that the impacts are mitigated below a level of significance in compliance with the California Environmental Quality Act (CEQA). The LOCAL JURISDICTION retains responsibility for ensuring that the appropriate Incidental Take Minimization Measure are properly implemented and monitored and that appropriate fees are paid in compliance with the SJMSCP. Although participation in the SJMSCP is voluntary, Local Jurisdiction/Lead Agencies should be aware that if project applicants choose against participating in the SJMSCP, they will be required to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP.

At this time, the applicant is providing a Notice of Preparation of a Draft Environmental Impact Report and Notice of EIR Scoping Meeting listing a variety of Agency-assisted redevelopment activities. While not proposed as specific projects at this time, individual future projects that require ground disturbance will be subject to participate in the SJMSCP and should be resubmitted to this agency.

This Project is subject to the SJMSCP. This can be up to a 30 day process and it is recommended that the project applicant contact SJMSCP staff as early as possible. It is also recommended that the project applicant obtain an information package. http://www.sjcog.org

Please contact SJMSCP staff regarding completing the following steps to satisfy SJMSCP requirements:

- Schedule a SJMSCP Biologist to perform a pre-construction survey ***prior to any ground disturbance***
- SJMSCP Incidental take Minimization Measures and mitigation requirement:

1. Incidental Take Minimization Measures (ITMMs) will be issued to the project and must be signed by the project applicant prior to any ground disturbance but no later than six (6) months from receipt of the ITMMs. If ITMMs are not signed within six months, the applicant must reapply for SJMSCP Coverage. Upon receipt of signed ITMMs from project applicant, SJCOG, Inc. staff will sign the ITMMs. This is the effective date of the ITMMs.
2. Under no circumstance shall ground disturbance occur without compliance and satisfaction of the ITMMs.
3. Upon issuance of fully executed ITMMs and prior to any ground disturbance, the project applicant must:

a. Post a bond for payment of the applicable SJMSCP fee covering the entirety of the project acreage being covered (the bond should be valid for no longer than a 6 month period); or
b. Pay the appropriate SJMSCP fee for the entirety of the project acreage being covered; or
c. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
d. Purchase approved mitigation bank credits.

4. Within 6 months from the effective date of the ITMMs or issuance of a building permit, whichever occurs first, the project applicant must:
   a. Pay the appropriate SJMSCP for the entirety of the project acreage being covered; or
   b. Dedicate land in-lieu of fees, either as conservation easements or fee title; or
   c. Purchase approved mitigation bank credits.

Failure to satisfy the obligations of the mitigation fee shall subject the bond to be called.

- Receive your Certificate of Payment and release the required permit

It should be noted that if this project has any potential impacts to waters of the United States [pursuant to Section 404 Clean Water Act], it would require the project to seek voluntary coverage through the unmapped process under the SJMSCP which could take up to 90 days. It may be prudent to obtain a preliminary wetlands map from a qualified consultant. If waters of the United States are confirmed on the project site, the Corps and the Regional Water Quality Control Board (RWQCB) would have regulatory authority over those mapped areas [pursuant to Section 404 and 401 of the Clean Water Act respectively] and permits would be required from each of these resource agencies prior to grading the project site.

If you have any questions, please call (209) 235-0600.

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

January 31, 2013

Charlie Mullen, Principal Planner
City of Lathrop
390 Towne Centre Drive
Lathrop, California 95330

Dear Mr. Mullen:

This is in response to your request for comments on Notice of Preparation of Draft Environmental Impact Report (DEIR) and Notice of EIR Scoping Meeting for the South Lathrop Specific Plan Project.

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of San Joaquin (Community Number 060299) and City of Lathrop (Community Number 060738), Maps revised October 16, 2009. Please note that the City of Lathrop, San Joaquin County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The City of Lathrop floodplain manager can be reached by calling Glenn Gebhardt, Community Development Director, at (209) 941-7292. The San Joaquin County floodplain manager can be reached by calling John Maguire, Head of Engineering Services, at (209) 953-7617.

If you have any questions or concerns, please do not hesitate to call Jane Hopkins of the Mitigation staff at (510) 627-7183.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
Glenn Gebhardt, Community Development Director, City of Lathrop
John Maguire, Head of Engineering Services, San Joaquin County
Ray Lee, WREA, State of California, Department of Water Resources, North Central Region Office
Jane Hopkins, NFIP Planner, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

Steve McMurtry

Subject: FW: scoping meeting South Lathrop specific plan project - Oakwood shores

----- Forwarded Message ----
From: alan kaplan <ankaplan@sbcglobal.net>
To: cmullen@ci.lathorp.ca.us
Cc: PCurtin@wendel.com; jscheiber@vierramoore.com; fred@facts-international.com; marlene_moses@yahoo.com
Sent: Wed, February 6, 2013 11:00:38 AM
Subject: scoping meeting South Lathrop specific plan project - Oakwood shores

Dear Mr. Mullen: We would like to correct a notification/address problem regarding the residents of Oakwood Shores. Many residents did not receive notification . Please send our notifications to: Dr. and Mrs Alan N. Kaplan 1776 Ygnacio Valley Road Suite 104 Walnut Creek CA 94598. I have discussed this problem with the residents Management Company. Jim Scheiber of Vierra Moorre, he has agreed to furnish notifications to all residents (approximately 80). Vierra Moore sends out monthly newsletters and Homeowner ASSESSMENTS. They have a complete and current list of residents. His contact is :jscheiber@vierramoore.com. 916-925-9000 (phone) (fax) 916-567-6222. We would like to know who the applicant is for the proposed 300 plus acres ? We would like to know if the Brown family/Vernalis/OLWD/RD-17 is involved in this application. What effect would this project have on our water supply/air quality /noise element? Is there a plan for public trails/facilities impacting our private subdivision? We have many questions . Some residents will try to attend the meeting tonight. We look forward to working with you. Sincerely Alan and Linda Kaplan

San Joaquin County
Environmental Health Department
1868 East Hazelton Avenue
Stockton, California 95205-6232

Website: www.sjgov.org/ehd
Phone: (209) 468-3420
Fax: (209) 464-0138

DIRECTOR
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PROGRAM COORDINATORS
Robert McClellon, REHS
Jeff Carruesco, REHS, RDI
Kasey Foley, REHS
Linda Turkatte, REHS

February 12, 2013

Charlie Mullen, Principal Planner
City of Lathrop
390 Towne Center Drive
Lathrop, California 95330

Subject: South Lathrop Specific Plan Project

The San Joaquin County Environmental Health Department has the following comments regarding the notice of preparation of a draft Environmental Impact Report for the above project:

The existing structures are being served by onsite sewage disposal systems and individual wells for domestic and irrigation purposes. The Environmental Health Department recommends that as part of developing these properties, the existing wells and septic systems shall be destroyed under permit and inspection with the Environmental Health Department. Existing structures that will remain shall be connected to public sewer and public water.

Should you have any questions, please contact Steven Shih, Lead Senior Registered Environmental Health Specialist, at (209) 468-9850.

Rodney Estrada, REHS
Program Coordinator

RE: tl

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

February 15, 2013

Mr. Charlie Mullen
City of Lathrop
390 Towne Centre Dr.
Lathrop, California 95330

Subject: South Lathrop Specific Plan
SCH Number: 2013012064
Document Type: Notice of Preparation

Dear Mr. Mullen:

Staff of the Central Valley Flood Protection Board (Board) has reviewed the subject document and provides the following comments:

The proposed project is located adjacent to or within the San Joaquin River which is under the jurisdiction of the Central Valley Flood Protection Board. The Board is required to enforce standards for the construction, maintenance, and protection of adopted flood control plans that will protect public lands from floods. The jurisdiction of the Board includes the Central Valley, including all tributaries and distributaries of the Sacramento River, the San Joaquin River, and designated floodways (Title 23 California Code of Regulations (CCR), Section 2).

A Board permit is required prior to starting the work within the Board's jurisdiction for the following:

- The placement, construction, reconstruction, removal, or abandonment of any landscaping, culvert, bridge, conduit, fence, projection, fill, embankment, building, structure, obstruction, encroachment, excavation, the planting, or removal of vegetation, and any repair or maintenance that involves cutting into the levee (CCR Section 6);

- Existing structures that predate permitting or where it is necessary to establish the conditions normally imposed by permitting. The circumstances include those where responsibility for the encroachment has not been clearly established or ownership and use have been revised (CCR Section 6);

- Vegetation plantings will require the submission of detailed design drawings; identification of vegetation type; plant and tree names (i.e. common name and scientific name); total number of each type of plant and tree; planting spacing and irrigation method that will be utilized within the project area; a complete vegetative management plan for maintenance to prevent the interference with flood control, levee maintenance, inspection, and flood fight procedures (CCR Section 131).

Vegetation requirements in accordance with Title 23, Section 131 (c) states "Vegetation must not interfere with the integrity of the adopted plan of flood control, or interfere with maintenance, inspection, and flood fight procedures."

The accumulation and establishment of woody vegetation that is not managed has a negative impact on channel capacity and increases the potential for levee over-topping. When a channel develops vegetation that then becomes habitat for wildlife, maintenance to initial baseline conditions becomes more difficult as the removal of vegetative growth is subject to federal and State agency requirements for on-site mitigation within the floodway.

Hydraulic Impacts - Hydraulic impacts due to encroachments could impede flood flows, reroute flood flows, and/or increase sediment accumulation. The project should include mitigation measures for channel and levee improvements and maintenance to prevent and/or reduce hydraulic impacts. Off-site mitigation outside of the State Plan of Flood Control should be used when mitigating for vegetation removed within the project location.

The permit application and Title 23 CCR can be found on the Central Valley Flood Protection Board's website at http://www.cvfpb.ca.gov/. Contact your local, federal and State agencies, as other permits may apply.

The Board's jurisdiction, including all tributaries and distributaries of the Sacramento River and the San Joaquin River, and designated floodways can be viewed on the Central Valley Flood Protection Board's website at http://gis.bam.water.ca.gov/bam/.

If you have any questions, please contact me by phone at (916) 574-0651, or via email at jherota@water.ca.gov.

Sincerely,

James Herota

James Herota
Staff Environmental Scientist
Projects and Environmental Branch

cc: Governor's Office of Planning and Research
State Clearinghouse
1400 Tenth Street, Room 121
Sacramento, California 95814

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Central Valley Regional Water Quality Control Board

15 February 2013

Charlie Mullen
City of Lathrop
390 Towne Centre Drive
Lathrop, CA 95330

CERTIFIED MAIL
7012 0470 0000 9904 4526

COMMENTS TO NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, SOUTH LATHROP SPECIFIC PLAN PROJECT, SCH NO. 2013012064, SAN JOAQUIN COUNTY

Pursuant to the State Clearinghouse's 25 January 2013 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Notice of Preparation for the Draft Environmental Impact Report* for the South Lathrop Specific Plan Project, located in San Joaquin County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml.

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits[1]

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/.

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml.

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

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[1] Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

Waste Discharge Requirements

If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:
http://www.waterboards.ca.gov/centralvalley/help/business_help/permit2.shtml.

If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento

CITY OF MANTECA

COMMUNITY DEVELOPMENT
DEPARTMENT

February 19, 2013

Mr. Charlie Mullen
Principal Planner
City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330

SUBJECT: CITY OF MANTECA, RESPONSE TO NOP FOR SOUTH LATHROP SPECIFIC PLAN EIR.

Dear Mr. Mullen:

The City of Manteca is providing the following comments and areas of concern in response to the subject project Notice of Preparation. The City is neither a responsible nor a trustee agency for the project; however, as the neighboring jurisdiction the City is concerned about the potential traffic impacts to the existing facilities our two cities share.

More specifically the City of Manteca is concerned with the impacts that the project will have on the Intersections, Roadways, and Freeway Facilities proposed to be analyzed in the project's Initial Study, Pages 47 and 48. Of particular concern is the establishment of this project's fair share of responsibility toward all traffic mitigations determined to be necessary in the forthcoming environmental impact report and traffic analysis.

The City of Manteca recommends that the City of Lathrop establish development triggers to help with the timing of traffic mitigation measures. In other words establish thresholds of development tied to trip generation that could occur prior to specific traffic improvements being required. We also recommend that "fair share" calculations are established with the EIR and are not left to be determined at a later date.

We hope that our suggestions are taken into consideration and that they become a useful tool to ensure that the traffic impacts of this project are mitigated fairly and equitable. We look forward to reviewing the Draft EIR for the project.

Sincerely,

Mark Meissner
Planning Manager

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www.ci.manteca.ca.us

THOMAS M. GAU
DIRECTOR

FRITZ BUCHMAN
DEPUTY DIRECTOR

MICHAEL SELLING
DEPUTY DIRECTOR

ROGER JANES
BUSINESS ADMINISTRATOR

Public Works
San Joaquin County
Working for YOU

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www.sjgov.org/pubworks

February 20, 2013

Mr. Charlie Mullen
Principal Planner
City of Lathrop
390 Towne Center Drive
Lathrop, California 95330

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND NOTICE OF ENVIRONMENTAL IMPACT REPORT SCOPING MEETING

Dear Mr. Mullen:

The San Joaquin County Department of Public Works (County) has reviewed the Notice of Preparation of a Draft Environmental Impact Report and Notice of EIR Scoping Meeting for the South Lathrop Specific Plan project, and has the following comment:

Flood Management:

1. Page 10: The list under the heading "Other Public Agencies Whose Approval Is Required (E.G., Permits, ETC.)" shall include the Central Valley Flood Protection Board. A Central Valley Flood Protection Board Encroachment Permit shall be required for all work done on San Joaquin River, its levees, and within 15-feet of its levee toes.

Thank you for the opportunity to review and comment. Should you have questions, please contact me at (209) 468-3085.

Sincerely,

MARK HOPKINS
Senior Planner

MH:rc
TE-13B038-R1.DOC

c: Alex Chetley, Engineering Services Manager
John Maguire, Engineering Services Manager
Firoz Vohra, Senior Civil Engineer

SAN JOAQUIN COUNCIL OF GOVERNMENTS

555 E. Weber Avenue • Stockton, California 95202

***209.235.0600** • 209.235.0438 (fax)*
www.sjcog.org

February 21, 2013

Mr. Charlie Mullen
City of Lathrop, Community Development Department
390 Towne Center Drive, Lathrop CA 95330

Re: Notice of Preparation (NOP) - South Lathrop Specific Plan

Dear Mr. Mullen:

Thank you for the opportunity to comment on the NOP for the South Lathrop Specific Plan (SLSP) project. As the County's designated Regional Transportation Planning Agency (RTPA), the Congestion Management Agency (CMA), and the Metropolitan Planning Organization (MPO), the San Joaquin Council of Governments (SJCOG) has reviewed the above-referenced document.

Maintaining a Regional Congestion Management Program/Process is required by State Govt. Code, Section 65088 – 65089.10, the County's Measure K Renewal Ordinance, and federal congestion management process planning requirements. The primary purpose of the RCMP is to monitor the cumulative transportation impacts of growth of the regional roadway system, establish operational standards, identify deficient regional roadways, develop plans to mitigate or correct the deficiencies, and to facilitate travel demand management and operational preservation strategies for existing and planned development.

On November 15, 2012 the SJCOG Board of Directors adopted the 2012 update to the Regional Congestion Management Program. Chapter 6 of the 2012 RCMP describes the updated Land Use Analysis Program, including Tier 1 and Tier 2 review/analysis requirements, analysis methods, impact significance criteria, and mitigation. The program plan is available at the following link: http://www.sjcog-rcmp.org/.

The trip generation for this project is expected to trigger a "Tier 2 Review". A Tier 2 review will entail addressing the Tier 1 consistency review as well as a quantitative analysis of RCMP impacts – project specific and cumulative plus project conditions. Please refer to Chapter 6 of the 2012 RCMP for details regarding analysis/mitigation requirements for land development projects.

The DEIR should contain a section that specifically addresses requirements and standards of the RCMP, which includes the Regional Travel Demand Management Action Plan.

Travel Demand Management

Travel demand management is an integral part of San Joaquin's congestion management program. To show consistency with the Regional Travel Demand Management Plan, the DEIR should include a detailed look at options that will provide support for trip reduction planning.

The SLSP should be conditioned to ensure that, as development plans are processed, they include provisions to promote participation in San Joaquin COG's Commute Connection program (www.commuteconnection.com). Commute Connection is the regional rideshare program operated by the San Joaquin Council of Governments whose mission is to reduce traffic congestion and improve air quality. The program is designed to help commuters make the transition from driving alone to a convenient ridesharing option such as carpooling, vanpooling, bicycling/walking or riding transit. The program serves San Joaquin, Stanislaus, and Merced Counties. The program includes free services such as commuter ride-matching, Guaranteed Ride Home and Employer Services.

The following development types require coordination with Commute Connection services/programs:

- All business or industrial parks
- All event centers or stadiums
- Schools with greater than 150 students
- All commercial, industrial, and retail offices with greater than 50 full-time equivalent employees

As a means of mitigating any potential significant effect regarding a conflict with adopted policies, plans, or programs supporting alternative transportation SJCOG requests that measures be added that will ensure that future development per the SLSP will include provisions for alternative travel and that the land uses listed above will participate in SJCOG's Commute Connection Program.

Surface Transportation Assistance Act (STAA) Terminal Access Routes

The proposed project includes a variety on non-residential development that may depend on large trucks for the movement of goods. If these operations will depend on STAA rated trucks to serve their needs the roadways must be designed and built to accommodate STAA rated trucks.

Regional Transportation Impact Fees as Mitigation

For projects subject to RCMP review, the Regional Traffic Impact Fee (RTIF) program establishes a specific mitigation fee program relative to cumulative regional impacts. To satisfy these requirements, project applicants are required to pay their fair share contribution into the RTIF program. These "fair share" contributions must be committed to funding priorities established in the CIP of the RCMP, the RTP, or the Federal TIP.

However, to better inform the public and stakeholders, the environmental document's mitigation language must convey that payment into the RTIF program does not guarantee that the lead agency (local agency) will necessarily spend these developer fees on the identified mitigation improvement. SJCOG will administer the RCMP/RTIF Mitigation Monitoring Program to track the "actual" funding/implementation

of identified mitigation improvements (i.e., conditions of approval) identified as part of environmental documents. SJCOG will periodically report each local agency's implementation progress of identified mitigation measures as part of mandated RCMP and RTIF program compliance hearings to the SJCOG Board. SJCOG will also provide this status update mitigation improvement information to local agencies as part SJCOG's state and federal flexible funding cycle "call for projects".

Consistency with other Regional Plans

As stipulated within the RCMP Project Review Criteria in Chapter 6 of the 2012 RCMP, the DEIR is required to show consistency with all applicable regional transportation planning documents, such as:

- Regional Transportation Demand Management Plan
- Park-and-Ride Master Plan
- Regional Bikeway Plan
- Smart Growth Infill Opportunity Zone Plan
- Regional Transit Systems Plan
- Regional Transportation Impact Fee Program
- Regional Transportation Plan
- Interregional STAA Study for I-5 and SR-99

SJCOG staff is available to assist with project specific guidance and narrowing the scope of the relevant regional plans that need to be included within the EIR.

Lastly, if any new principal arterials will be built to serve this planning area, Govt. Code 65089.1 requires that the arterial(s) be designated as part of the state RCMP system.

Thank you for the opportunity to review and comment on this project. If you have any questions please call the RCMP's lead planner, Laura Brunn, at (209) 235-0579. We would be pleased to meet with the city and project sponsors to provide any necessary information, support and guidance.

Sincerely,

LAURA BRUNN
SJCOG Associate Regional Planner

M:\Project Review\SJCOG_CMA\Lathrop\South Lathrop Specific Plan\SLSP_NOP.docx

Steve McMurtry

Subject: FW: NOP for DEIR South Lathrop Specific Plan - PG&E comments

From: Maier, Lonn [mailto:LCMk@pge.com]
Sent: Sunday, February 24, 2013 4:01 PM
To: Charles Mullen
Subject: NOP for DEIR South Lathrop Specific Plan

Good morning Charlie,

I have your NOP for the South Lathrop Specific Plan, and would like to offer some comments that will save some time and increase efficiency on behalf of PG&E in working with the City.

The draft EIR must contain sufficient information to ensure that any gas or electric supply required for the project be clearly identified. Any routes used to secure gas and electric power to the project must be identified (in conjunction with PG&E staff that can assist in routing gas and electric lines). A substation may be needed to serve the project. This must also be identified as a part of the project description. Routing of gas and electric lines need to be surveyed and resources identified as a part of the project. Mitigation measures must include the power delivery systems that affect resources as determined by surveys.

Please feel free to call me if any further information is needed.

Thanks--

Lonn

Lonn Maier, Supervisor
Electric Transmission Environmental Planning and Permitting
Pacific Gas and Electric Company
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DELTA PROTECTION COMMISSION
2101 Stone Blvd., Suite 201
West Sacramento, CA 95691
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Home Page: www.delta.ca.gov

February 25, 2013

Charlie Mullen
City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330

Subject: South Lathrop Specific Plan (SCH# 2013012064)

Dear Mr. Mullen:

Staff of the Delta Protection Commission (Commission) have reviewed the Notice of Preparation for the South Lathrop Specific Plan EIR and are providing these advisory comments. Although the project lies outside of the Primary Zone of the Legal Delta, it still has the capability of affecting resources of the Primary Zone environment.

The proposed project is a specific plan, general plan amendment, pre-zoning, zoning code amendment, annexation, subdivision, and a development agreement for a 315-acre plan located in the City of Lathrop's sphere of influence. The project has potential impacts on agricultural and biological resources of the Delta. Reduction of agricultural land in the County could negatively impact the economies of scale necessary for continued agricultural production inside and outside of the Primary Zone. The project could also impact available habitat of protected and non-protected species native to the Delta. Although the proposed project lies in the Secondary Zone, the impacts would be in conflict with the Commission's Land Use and Resource Management Plan for the Primary Zone of the Delta (Management Plan). Goals of the Management Plans include: the discouragement of inappropriate development of agricultural lands, and the preservation and protection of natural resources of the Delta. Specific policies include: to reduce subdivision of agricultural lands, protect agriculture and related activities, protect agricultural lands from conversion to non-agriculturally-oriented uses, and to preserve and protect the natural resources of the Delta. Efforts should be made to minimize and mitigate any adverse impacts to the Primary Zone.

Thank you for the opportunity to provide input. Please contact the Commission office at (916) 375-4800, if you have any questions about the comments provided herein.

Sincerely,

Michael Machado
Executive Director

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

February 26, 2013

Charlie Mullen
Principal Planner
City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330

Project: South Lathrop Specific Plan Project

District CEQA Reference No: 20130091

Dear Mr. Mullen:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the Notice of Preparation (NOP) for the South Lathrop Specific Plan Project. The proposed project consists of an annexation of approximately 315 acres into the City of Lathrop. The Specific Plan includes: approximately 10 acres of commercial office uses, 222 acres of limited industrial uses, and 83 acres of open space, roads and public facility sites. The District offers the following comments:

Emissions Analysis

1) The District is currently designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and nonattainment for PM2.5 for the federal air quality standards. At the state level, the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 air quality standards. The District recommends that the Air Quality section of the Environmental Impact Report (EIR) include a discussion of the following impacts:

   a) **Criteria Pollutants:** Project related criteria pollutant emissions should be identified and quantified. The discussion should include existing and post-project emissions.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
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Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
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Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: 661-392-5500 FAX: 661-392-5585

www.valleyair.org www.healthyairliving.com

i) Construction Emissions: Construction emissions are short-term emissions and should be evaluated separate from operational emissions. The District recommends preparation of an Environmental Impact Report (EIR) if annual construction emissions cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

- *Recommended Mitigation:* To reduce impacts from construction related exhaust emissions, the District recommends feasible mitigation for the project to utilize off-road construction fleets that can achieve fleet average emissions equal to or cleaner than the Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations. This can be achieved through any combination of uncontrolled engines and engines complying with Tier II and above engine standards.

ii) Operational Emissions: Permitted (stationary sources) and non-permitted (mobile sources) sources should be analyzed separately. The District recommends preparation of an Environmental Impact Report (EIR) if the sum of annual permitted and non-permitted emissions cannot be reduced or mitigated to below the following levels of significance: 10 tons per year of oxides of nitrogen (NOx), 10 tons per year of reactive organic gases (ROG), or 15 tons per year particulate matter of 10 microns or less in size (PM10).

iii) Recommended Model: Project related criteria pollutant emissions should be identified and quantified. Emission analysis should be performed using CalEEMod (**Cal**ifornia **E**mission **E**stimator Model), which uses the most recent approved version of relevant Air Resources Board (ARB) emissions models and emission factors. CalEEMod is available to the public and can be downloaded from the CalEEMod website at: www.caleemod.com .

b) **Nuisance Odors:** The project should be evaluated to determine the likelihood that the project would result in nuisance odors. Nuisance orders are subjective, thus the District has not established thresholds of significance for nuisance odors. Nuisance odors may be assessed qualitatively taking into consideration of project design elements and proximity to off-site receptors that potentially would be exposed objectionable odors.

c) **Health Impacts:** Project related health impacts should be evaluated to determine if emissions of toxic air contaminants (TAC) will pose a significant health risk to nearby sensitive receptors. TACs are defined as air pollutants that which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. The most common source of TACs can be attributed to diesel exhaust fumes that are emitted from both stationary and mobile sources. Health impacts may require a detailed health risk assessment (HRA).

Prior to conducting an HRA, an applicant may perform a prioritization on all sources of emissions to determine if it is necessary to conduct an HRA. A

prioritization is a screening tool used to identify projects that may have significant health impacts. If the project has a prioritization score of 1.0 or more, the project has the potential to exceed the District's significance threshold for health impacts of 10 in a million and an HRA should be performed.

If an HRA is to be performed, it is recommended that the project proponent contact the District to review the proposed modeling approach. The project would be considered to have a significant health risk if the HRA demonstrates that project related health impacts would exceed the District's significance threshold of 10 in a million.

More information on TACs, prioritizations and HRAs can be obtained by:

- E-mailing inquiries to: hramodeler@valleyair.org; or
- Visiting the District's website at:

  http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm.

2) In addition to the discussions on potential impacts identified above, the District recommends the EIR also include the following discussions:

   a) A discussion of the methodology, model assumptions, inputs and results used in characterizing the project's impact on air quality. To comply with CEQA requirements for full disclosure, the District recommends that the modeling outputs be provided as appendices to the EIR. The District further recommends that the District be provided with an electronic copy of all input and output files for all modeling.

   b) A discussion of the components and phases of the project and the associated emission projections, including ongoing emissions from each previous phase.

   c) A discussion of project design elements and mitigation measures, including characterization of the effectiveness of each mitigation measure incorporated into the project.

   d) A discussion of whether the project would result in a cumulatively considerable net increase of any criteria pollutant or precursor for which the San Joaquin Valley Air Basin is in non-attainment. More information on the District's attainment status can be found online by visiting the District's website at:

   http://valleyair.org/aqinfo/attainment.htm.

District Rules and Regulations

3) The proposed project may be subject to District rules and regulations, including: Regulation VIII (Fugitive PM10 Prohibitions), Rule 4102 (Nuisance), and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations). In the event an existing building will be renovated, partially demolished or removed, the project may be subject to District Rule 4002 (National Emission Standards for Hazardous Air Pollutants).

4) This project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and will require District permits. Prior to construction, the project proponent should submit to the District an application for an Authority to Construct (ATC). For further information or assistance, the project proponent may contact the District's Small Business Assistance (SBA) Office at (209) 557-6446.

5) Based on the information provided, the proposed project is subject to District Rule 9510.

   Any applicant subject to District Rule 9510 is required to submit an Air Impact Assessment (AIA) application to the District no later than applying for final discretionary approval, and to pay any applicable off-site mitigation fees before issuance of the first building permit. If approval of the subject project constitutes the last discretionary approval by your agency, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees before issuance of the first building permit, be made a condition of project approval. Information about how to comply with District Rule 9510 can be found online at:

   http://www.valleyair.org/ISR/ISRHome.htm.

6) The above list of rules is neither exhaustive nor exclusive. To identify other District rules or regulations that apply to this project or to obtain information about District permit requirements, the applicant is strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (209) 557-6446. Current District rules can be found online at the District's website at:

   www.valleyair.org/rules/1ruleslist.htm.

The District recommends that a copy of the District's comments be provided to the project proponent. If you have any questions or require further information, please call Mark Montelongo at (559) 230-5905.

Sincerely,

David Warner
Director of Permit Services

for: Arnaud Marjollet
Permit Services Manager

DW:mm

cc: File

DEPARTMENT OF TRANSPORTATION
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Flex your power!
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March 4, 2013

10-SJ-120-PM1.18
South Lathrop Specific Plan
SCH# 2013012064

Mr. Charlie Mullen
City of Lathrop
390 Towne Centre Dr.
Lathrop, CA 95330

Dear Mr. Mullen:

The California Department of Transportation (Department) appreciates the opportunity to comment on the Notice of Preparation (NOP) for the South Lathrop Specific Plan draft Environmental Impact Report (EIR). The plan area is located south of State Route 120, north and west of the Union Pacific Railroad, and east of the San Joaquin River. This project is proposing to include development of 10 acres of commercial office uses, 222 acres of limited industrial uses, and the remaining 83 acres to be open space, roads and public facility sites.

Upon review of this project, the Department has the following comments:

Hydraulics Engineer

1. Please specify if the basin mentioned in the plan will be either a detention or retention. Runoff from the project area needs to be consistent from pre-construction to post-construction.
2. The developer needs to ensure that the existing State drainage facilities will not be significantly impacted by this project. If historical undeveloped topography shows drainage from this site flowing into the State Right-of-Way, it may continue to do so with the conditions that peak flows may not be increased from the pre-construction quantity and the site runoff be treated to meet present storm water quality standards. If historical undeveloped topography shows drainage from this site did not flow into the State Right-of-Way, they it will not be allowed to flow into the State Right-of-Way at this time.

Environmental Planning

If project construction activities will encroach into Caltrans right of way, the project proponent must submit an application for an Encroachment Permit to the Caltrans Permit Office. Appropriate environmental studies must be submitted with this application. These studies will include an analysis of potential impacts to any cultural sites, biological resources, hazardous waste locations, and/or other resources within Caltrans right of way at the project site(s).

There is a potential to impact Giant Garter Snake habitat, California Tiger Salamander habitat, and other sensitive species. Waters of the United States, including wetlands regulated by the Army Corp of Engineers could also be present. There is also the potential for cultural sites in the vicinity.

Traffic Operations

1. The proposed South Lathrop Specific Plan (SLSP) will result in potential significant impacts to the SR-120/Guthmiller/Yosemite Ave. interchange, I-5/SR-120 connector, I-5/Louise Ave. interchange, and mainline segments of I-5 and SR-120. Please submit a complete Traffic Impact Study (TIS) to determine the proposed project's near-term and long-term impacts to State highway facilities. The NOP is unclear whether it includes the approved and pending projects. The TIS should include a traffic simulation analysis to fully document expected impacts to existing and future levels-of-service on mainline segments of the State Highway System (SHS) in the project vicinity and propose appropriate and feasible mitigation measures to address any and all expected impacts expected to deteriorate SHS operations. The TIS should be in accordance with "Caltrans Guide for the Preparation of TIS" dated December 2002 and include a discussion of identified mitigation measures/improvements and funding responsibility.

   Please submit the scope of work to the Department for review and comment prior to start of work on the TIS. The Department is available to discuss assumptions, data requirements, study scenarios, and analysis methodologies to help ensure that a quality TIS is prepared.

2. Please refer to page 47 and 48 of the NOP - South Lathrop Specific Plan under Freeway Facilities. This section lists multiple locations of proposed analyses in addition to the following freeway segments.
   - EB SR-120 between I-5 and Guthmiller Road
   - EB SR-120 between Guthmiller Road and Airport Way (Existing)
   - EB SR-120 between Airport Way and Union Road
   - WB SR-120 between Union Road and Airport Way
   - WB SR-120 between Airport Way and Guthmiller Road (Existing)
   - EB SR-120 between Guthmiller Road and McKinley Avenue (Future)
   - EB SR-120 between McKinley Avenue and Airport Way (Future)
   - WB SR-120 EB between Airport Way and McKinley Avenue (Future)
   - EB SR-120 between McKinley Avenue and Guthmiller Road (Future)

   However, it should be noted the list only addresses "Existing" and "Future" scenarios. These freeway segments need to be analyzed for the various scenarios which apply to the phasing of the development. Additionally the "Existing + Approved/Pending" project scenario which is essentially a "Near Term" scenario and needs to be included in the analyses for the various segments, merge, diverge, weaving and intersection LOS. The freeway segment mainline analysis needs to be analyzed using HCS 2010 Software.

3. The NOP states mainline analysis will be done for the following locations. However, it does not provide the segment limits. Please clarify by providing the proposed segment

limits on I-5 for the NOP listed locations for mainline analysis:

- NB I-5 south of SR 120
- NB I-5 north of SR 120
- SB I-5 north of SR 120
- SB I-5 south of SR 120

4. Please include the intersection of Guthmiller Rd/Yosemite Rd and Yosemite Rd/Madruga Rd. in the TIS analysis.

5. The NOP does not clarify the analysis period proposed for the transportation analysis. The TIS scope of work will need to provide information with regards to the proposed time of day and day of week the collected traffic data and subsequent analysis would represent, such as: AM Peak Hour, PM Peak Hour, Mid-day Peak, Weekdays, Weekends, etc.

6. The methodologies for computing intersection and mainline peak hour Levels of Service will be as provided in the Highway Capacity Manual 2010 (HCM 2010). Mainline computations will be made using the 2010 Highway Capacity Software. Intersection computation needs to be made using Synchro/SimTraffic 8.0.

7. The EIR/TIS analysis of the project impacts to state routes will be based on Caltrans thresholds of significance. Improvements required to mitigate the project's significant impacts will need to be outlined. Intersection analysis will include Level of Service (LOS), queue, delay, left-turn/right-turn lane storage, sight distance, stopping sight distance, traffic control device warrants (signal control).

8. Because of the short weaving distance and high traffic volumes between SR-120/Guthmiller Rd/Yosemite interchange and the I-5/SR-120 connector the proposed project will result in potential significant impacts to the weaving within this segment. The proposed project will need to analyze and address weaving issues. Therefore, the EIR/TIS will need to include analysis to address this impact to weaving. The Leisch Method needs to be used since both the HCM 2000 and HCM 2010 weaving methods are not acceptable to Caltrans.

9. A ramp metering analysis will need to be including in the TIS. Ramp meter storage needs to be calculated using the following parameters:
   - Use design year unconstrained volumes
   - HOV preferential lane used by 11 percent of volume
   - Accommodate storage for 7 percent of non-HOV volume assuming 30 feet per vehicle.

10. Use Synchro/Simtraffic Version 8.0 in the intersection analysis (queue length, delay and LOS). Use HCS 2010 software in the mainline segment analysis (merge/diverge, mainline LOS).

11. Include the analyses reports and the electronic files for Synchro/Simtraffic, HCS 2010, Leisch Method, and Ramp Meter storage calculations in the EIR/TIS attachments. This information should be provided to Caltrans during any review.

12. The existing SR-120/Guthmiller/Yosemite Ave interchange is not STAA approved, since the ramp intersection geometric does not meet STAA design vehicle. According to the NOP, the Proposed Project would generate a significant amount of truck traffic using this interchange. This will result in a safety issue. The TIS should analyze the STAA off-tracking analysis and provide improvements.

13. The EIR/TIS traffic analysis will use current traffic volumes to determine the existing conditions. The analysis will need to identify the impacts under the following scenarios:
    - Existing condition (Existing Conditions Plus other Approved and Pending Projects)
    - Opening year (Near-Term) with and without Project conditions plus other Approved and Pending Projects.
    - Opening year for the various Phases with and without Project plus other Approved and Pending Projects.
    - Cumulative Conditions with and without Project

    It should be emphasized that the EIR/TIS transportation analysis must address any project phasing at the opening day of each specific phase. To attempt to only analyze future phases during the Cumulative scenario will ignore the opening day impacts of that specific phase. Doing so would result in an inadequate EIR/TIS analysis since it would ignore impacts and necessary mitigations during each project phase until the Cumulative Condition.

14. SR-120/Guthmiller Rd/Yosemite Ave Interchange improvement project is listed in the 2011 SJCOG RTP as a Tier 2 project. Therefore it would be inappropriate and incorrect if the EIR/TIS proposes using this Tier 2 project to analyze or mitigate its impacts.

15. The existing SR-120/Guthmiller Rd/Yosemite Ave Interchange is not approved as a STAA truck facility. The proposed project trip generation will result in STAA trucks using these ramps. This is a potentially significant impact to safety. The EIR/TIS needs to analyze truck off-tracking.

16. The analysis of the SR-120/Guthmiller Rd interchange needs to include an analysis of the project's impact to vehicle queues at the EB and WB off-ramps. The project will increase the vehicle queues at these ramp termini. This will result in inadequate queue storage at the off-ramps which will create a potentially significant impact to safety.

17. Please submit the following preliminary information to Caltrans for review and concurrence prior to using this information to analyze and generate the draft TIS:
    - The proposed thresholds of significance to be used

- The project trip generation such as pass-by, diverted-link, internalization, etc.
- The forecast derived from the SJCOG travel demand model for the various scenario years

18. Please provide a detailed proposed TIS scope for review and concurrence by Caltrans prior to beginning any traffic volume collection or analyses.

Office of System Planning and Goodsmovement

Provide specific analysis that distinguishes truck use from worker commutes in the TIS.

The Transit branch requests that transit and pedestrian friendly designs and amenities in the proposed development be utilized to encourage the use of public transit and alternative modes of transit. Roadways should be designed to provide for bus stops/pull outs at major intersections and sidewalks should accommodate the installation of signs, benches and shelters. Bicycle paths and storage areas should also be incorporated to encourage bicycling to work which reduces the number of single occupancy vehicles on the road. Promoting the use of car and van pools should be encouraged by providing incentives such as preferred parking for car pool and green vehicles and charging stations for battery powered vehicles.

If you have any questions, please contact Barbara Hempstead at (209) 948-3909 (e-mail: Barbara_Hempstead@dot.ca.gov) or myself at (209) 941-1921.

Sincerely,

for Barbara Hempstead

TOM DUMAS, CHIEF
OFFICE OF METROPOLITAN PLANNING

AIR QUALITY MODELING

South Lathrop Specific Plan

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	130.68	1000sqft
General Light Industry	4158	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2		2.7		
		Precipitation Freq (Days)			
			51		

1.3 User Entered Comments

Project Characteristics -

Land Use - Industrial acreage increased from default value of 95 to actual value of 222. Commercial acreage increased from default value of 3 to actual value of 10.

Construction Phase - Adjusted to construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Added 2 excavators and 1 tractor/loader/backhoe to defaults

Grading - Adjusted total acres disturbed to match project description.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Mitigation reductions per South County AQMD Fugitive dust mitigation reductions (Tables Xi-A through XI-E) and Off-road mitigation reductions (Tables I through III)

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - CAPCOA mitigation reductions.

Water Mitigation -

Trips and VMT - Building Construction and Architectural Coating Worker Trips per day and Vendor Trips per day reduced to 40 and 20 based on expected building construction type and schedule.

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.70	5.47	3.30	0.01	0.76	0.27	1.03	0.28	0.27	0.55	0.00	597.07	597.07	0.06	0.00	598.26
2015	3.07	4.40	3.72	0.01	0.10	0.29	0.39	0.01	0.29	0.29	0.00	586.76	586.76	0.06	0.00	587.92
2016	4.45	4.18	3.97	0.01	0.13	0.25	0.38	0.01	0.25	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	4.38	3.79	3.86	0.01	0.13	0.22	0.35	0.01	0.22	0.22	0.00	653.33	653.33	0.05	0.00	654.32
2018	4.34	3.44	3.80	0.01	0.13	0.19	0.32	0.00	0.19	0.19	0.00	654.01	654.01	0.04	0.00	654.92
2019	4.30	3.13	3.73	0.01	0.13	0.16	0.30	0.00	0.16	0.16	0.00	652.39	652.39	0.04	0.00	653.22
2020	4.27	2.85	3.69	0.01	0.14	0.14	0.28	0.00	0.14	0.14	0.00	653.43	653.43	0.04	0.00	654.19
2021	4.22	2.57	3.64	0.01	0.13	0.12	0.25	0.00	0.12	0.12	0.00	656.96	656.96	0.03	0.00	657.67
2022	4.18	2.33	3.58	0.01	0.13	0.10	0.24	0.00	0.10	0.10	0.00	653.16	653.16	0.03	0.00	653.82
2023	0.88	0.45	0.75	0.00	0.03	0.02	0.05	0.00	0.02	0.02	0.00	137.92	137.92	0.01	0.00	138.05

Total	**34.79**	**32.61**	**34.04**	**0.09**	**1.81**	**1.76**	**3.59**	**0.31**	**1.76**	**2.05**	**0.00**	**5,902.90**	**5,902.90**	**0.41**	**0.00**	**5,911.33**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	2.28	4.91	3.55	0.01	0.29	0.21	0.51	0.10	0.21	0.32	0.00	597.07	597.07	0.06	0.00	598.26
2015	4.16	4.42	3.70	0.01	0.09	0.25	0.34	0.01	0.25	0.25	0.00	586.76	586.76	0.06	0.00	587.92
2016	5.52	4.67	4.02	0.01	0.12	0.26	0.38	0.01	0.26	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	5.48	4.54	3.93	0.01	0.12	0.24	0.37	0.01	0.24	0.25	0.00	653.33	653.33	0.05	0.00	654.32
2018	5.48	4.46	3.88	0.01	0.12	0.24	0.36	0.00	0.24	0.24	0.00	654.01	654.01	0.04	0.00	654.92
2019	5.46	4.36	3.83	0.01	0.12	0.23	0.35	0.00	0.23	0.23	0.00	652.39	652.39	0.04	0.00	653.22
2020	5.47	4.30	3.80	0.01	0.12	0.22	0.35	0.00	0.22	0.22	0.00	653.43	653.43	0.04	0.00	654.19
2021	5.44	4.20	3.77	0.01	0.12	0.22	0.34	0.00	0.21	0.22	0.00	656.96	656.96	0.03	0.00	657.67
2022	5.41	4.12	3.72	0.01	0.12	0.21	0.33	0.00	0.21	0.21	0.00	653.16	653.16	0.03	0.00	653.82
2023	1.14	0.86	0.78	0.00	0.03	0.04	0.07	0.00	0.04	0.04	0.00	137.92	137.92	0.01	0.00	138.05
Total	**45.84**	**40.84**	**34.98**	**0.09**	**1.25**	**2.12**	**3.40**	**0.13**	**2.11**	**2.24**	**0.00**	**5,902.90**	**5,902.90**	**0.41**	**0.00**	**5,911.33**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	19.73	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

Energy	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	16,038.84	16,038.84	0.61	0.28	16,138.55
Mobile	23.47	87.50	213.55	0.36	33.76	3.05	36.82	1.48	3.05	4.53	0.00	33,654.69	33,654.69	1.38	0.00	33,683.70
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	32,462.96	32,462.96	626.23	16.05	50,588.34
Total	**43.65**	**91.57**	**216.97**	**0.38**	**33.76**	**3.05**	**37.13**	**1.48**	**3.05**	**4.84**	**49,129.60**	**82,156.49**	**131,286.09**	**3,531.70**	**16.33**	**210,513.19**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	18.48	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
Energy	0.40	3.66	3.08	0.02		0.00	0.28		0.00	0.28	0.00	13,827.07	13,827.07	0.52	0.24	13,913.00
Mobile	23.47	87.50	213.55	0.36	33.76	3.05	36.82	1.48	3.05	4.53	0.00	33,654.69	33,654.69	1.38	0.00	33,683.70
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	25,972.38	25,972.38	500.98	12.84	40,472.70
Total	**42.35**	**91.16**	**216.63**	**0.38**	**33.76**	**3.05**	**37.10**	**1.48**	**3.05**	**4.81**	**49,129.60**	**73,454.14**	**122,583.74**	**3,406.36**	**13.08**	**198,172.00**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
Vegetation Land Change					-1,757.70
Total					**-1,757.70**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.75	0.43	0.00		0.04	0.04		0.04	0.04	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.09**	**0.75**	**0.43**	**0.00**	**0.33**	**0.04**	**0.37**	**0.12**	**0.04**	**0.16**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.12	0.00	0.12	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.33	0.61	0.40	0.00		0.03	0.03		0.03	0.03	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.33**	**0.61**	**0.40**	**0.00**	**0.12**	**0.03**	**0.15**	**0.04**	**0.03**	**0.07**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.42	0.00	0.42	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.50	4.03	2.26	0.00		0.19	0.19		0.19	0.19	0.00	438.16	438.16	0.04	0.00	439.01
Total	**0.50**	**4.03**	**2.26**	**0.00**	**0.42**	**0.19**	**0.61**	**0.16**	**0.19**	**0.35**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	1.70	3.64	2.52	0.00		0.15	0.15		0.15	0.15	0.00	438.16	438.16	0.04	0.00	439.01
Total	**1.70**	**3.64**	**2.52**	**0.00**	**0.15**	**0.15**	**0.30**	**0.06**	**0.15**	**0.21**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

3.4 Underground Utilities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.49	0.39	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.07**	**0.49**	**0.39**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.16	0.50	0.42	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.16**	**0.50**	**0.42**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.19	0.12	0.00		0.02	0.02		0.02	0.02	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.03**	**0.19**	**0.12**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.15	0.11	0.00		0.01	0.01		0.01	0.01	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.15**	**0.11**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.13	0.80	0.54	0.00		0.07	0.07		0.07	0.07	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.13**	**0.80**	**0.54**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16

Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	0.67	0.50	0.00		0.04	0.04		0.04	0.04	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.39**	**0.67**	**0.50**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

3.6 Building Construction - 2015

Unmitigated Construction On-Site

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

Off-Road	0.45	3.03	2.39	0.00		0.19	0.19		0.19	0.19	0.00	381.12	381.12	0.04	0.00	381.89
Total	**0.45**	**3.03**	**2.39**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.27	3.19	2.41	0.00		0.17	0.17		0.17	0.17	0.00	381.12	381.12	0.04	0.00	381.89
Total	**1.27**	**3.19**	**2.41**	**0.00**		**0.17**	**0.17**		**0.17**	**0.17**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.01	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.05**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.59	3.95	3.03	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**1.59**	**3.95**	**3.03**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

3.6 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.89	3.01	0.01		0.21	0.21		0.21	0.21	0.00	476.40	476.40	0.04	0.00	477.20
Total	**1.57**	**3.89**	**3.01**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26

Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.86	3.02	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.04	0.00	478.97

Total	**1.57**	**3.86**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.81	3.01	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.03	0.00	478.91
Total	**1.56**	**3.81**	**3.01**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.79	3.02	0.01		0.20	0.20		0.20	0.20	0.00	480.06	480.06	0.03	0.00	480.68
Total	**1.56**	**3.79**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.55	3.73	3.01	0.01		0.19	0.19		0.19	0.19	0.00	478.23	478.23	0.03	0.00	478.79
Total	**1.55**	**3.73**	**3.01**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.54	3.69	3.00	0.01		0.19	0.19		0.19	0.19	0.00	476.40	476.40	0.02	0.00	476.92
Total	**1.54**	**3.69**	**3.00**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.02	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.07**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.60	0.00		0.01	0.01		0.01	0.01	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.06**	**0.36**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.33	0.77	0.63	0.00		0.04	0.04		0.04	0.04	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.33**	**0.77**	**0.63**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.39					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.21	0.16	0.00		0.02	0.02		0.02	0.02	0.00	20.91	20.91	0.00	0.00	20.97
Total	**2.42**	**0.21**	**0.16**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**20.91**	**20.91**	**0.00**	**0.00**	**20.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	26.06	26.06	0.00	0.00	26.09
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.04**	**0.00**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**26.06**	**26.06**	**0.00**	**0.00**	**26.09**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.39					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.21	0.16	0.00		0.02	0.02		0.02	0.02	0.00	20.91	20.91	0.00	0.00	20.97
Total	**2.42**	**0.21**	**0.16**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**20.91**	**20.91**	**0.00**	**0.00**	**20.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	26.06	26.06	0.00	0.00	26.09
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.03**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**26.06**	**26.06**	**0.00**	**0.00**	**26.09**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.85**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.85**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.79					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.83**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.79					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.83**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.84**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.84**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.83**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	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
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.83**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.82					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.85**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.82					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.85**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.83**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01

Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.83**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Archit. Coating	3.79					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.82**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.79					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.82**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.05	0.00		0.00	0.00		0.00	0.00	0.00	7.01	7.01	0.00	0.00	7.02
Total	**0.81**	**0.04**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**7.01**	**7.01**	**0.00**	**0.00**	**7.02**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**8.17**	**8.17**	**0.00**	**0.00**	**8.17**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.04	0.05	0.00		0.00	0.00		0.00	0.00	0.00	7.01	7.01	0.00	0.00	7.02
Total	**0.81**	**0.04**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**7.01**	**7.01**	**0.00**	**0.00**	**7.02**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**8.17**	**8.17**	**0.00**	**0.00**	**8.17**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	23.47	87.50	213.55	0.36	33.76	3.05	36.82	1.48	3.05	4.53	0.00	33,654.69	33,654.69	1.38	0.00	33,683.70
Unmitigated	23.47	87.50	213.55	0.36	33.76	3.05	36.82	1.48	3.05	4.53	0.00	33,654.69	33,654.69	1.38	0.00	33,683.70
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28,981.26	5,488.56	2827.44	63,904,887	63,904,887
Office Park	1,492.37	214.32	99.32	2,783,889	2,783,889
Total	30,473.63	5,702.88	2,926.76	66,688,777	66,688,777

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	9,837.61	9,837.61	0.44	0.17	9,899.26
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	11,607.59	11,607.59	0.52	0.20	11,680.33
NaturalGas Mitigated	0.40	3.66	3.08	0.02		0.00	0.28		0.00	0.28	0.00	3,989.46	3,989.46	0.08	0.07	4,013.74
NaturalGas Unmitigated	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	4,431.26	4,431.26	0.08	0.08	4,458.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	8.15384e+007	0.44	4.00	3.36	0.02		0.00	0.30		0.00	0.30	0.00	4,351.20	4,351.20	0.08	0.08	4,377.68
Office Park	1.50021e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	80.06	80.06	0.00	0.00	80.54
Total		**0.45**	**4.07**	**3.42**	**0.02**		**0.00**	**0.31**		**0.00**	**0.31**	**0.00**	**4,431.26**	**4,431.26**	**0.08**	**0.08**	**4,458.22**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	7.34095e+007	0.40	3.60	3.02	0.02		0.00	0.27		0.00	0.27	0.00	3,917.41	3,917.41	0.08	0.07	3,941.25
Office Park	1.35019e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	72.05	72.05	0.00	0.00	72.49
Total		**0.41**	**3.67**	**3.08**	**0.02**		**0.00**	**0.28**		**0.00**	**0.28**	**0.00**	**3,989.46**	**3,989.46**	**0.08**	**0.07**	**4,013.74**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.83783e+007					11,164.70	0.50	0.19	11,234.66
Office Park	1.52242e+006					442.89	0.02	0.01	445.67
Total						**11,607.59**	**0.52**	**0.20**	**11,680.33**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.25322e+007					9,463.99	0.43	0.16	9,523.29
Office Park	1.28432e+006					373.62	0.02	0.01	375.97
Total						**9,837.61**	**0.45**	**0.17**	**9,899.26**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	18.48	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
Unmitigated	19.73	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.75					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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

Total	**19.73**	**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**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	15.50					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**18.48**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e

Category	tons/yr				MT/yr			
Mitigated					25,972.38	500.98	12.84	40,472.70
Unmitigated					32,462.96	626.23	16.05	50,588.34
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	20444.6 / 0					32,411.64	625.52	16.03	50,516.37
Office Park	23.2262 / 14.2354					51.32	0.71	0.02	71.97
Total						**32,462.96**	**626.23**	**16.05**	**50,588.34**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	16355.7 / 0					25,929.32	500.41	12.82	40,413.09
Office Park	18.581 / 13.3671					43.07	0.57	0.01	59.61
Total						**25,972.39**	**500.98**	**12.83**	**40,472.70**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					49,129.60	2,903.48	0.00	110,102.60
Unmitigated					49,129.60	2,903.48	0.00	110,102.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31

Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					-1,757.70	0.00	0.00	-1,757.70
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Cropland	283.5 / 0					-1,757.70	0.00	0.00	-1,757.70
Total						**-1,757.70**	**0.00**	**0.00**	**-1,757.70**

South Lathrop Specific Plan

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	130.68	1000sqft
General Light Industry	4158	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2		2.7		
		Precipitation Freq (Days)			
			51		

1.3 User Entered Comments

Project Characteristics -

Land Use - Industrial acreage increased from default value of 95 to actual value of 222. Commercial acreage increased from default value of 3 to actual value of 10.

Construction Phase - Adjusted to construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Added 2 excavators and 1 tractor/loader/backhoe to defaults

Trips and VMT - Building Construction and Architectural Coating Worker Trips per day and Vendor Trips per day reduced to 40 and 20 based on expected building construction type and schedule

Grading - Adjusted total acres disturbed to match project description.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Mitigation reductions per South County AQMD Fugitive dust mitigation reductions (Tables Xi-A through XI-E) and Off-road mitigation reductions (Tables I through III)

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - CAPCOA mitigation reductions.

Water Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.70	5.47	3.30	0.01	0.76	0.27	1.03	0.28	0.27	0.55	0.00	597.07	597.07	0.06	0.00	598.26
2015	2.14	4.31	3.58	0.01	0.09	0.28	0.37	0.00	0.28	0.28	0.00	567.86	567.86	0.05	0.00	568.98
2016	4.58	4.18	3.97	0.01	0.13	0.25	0.38	0.01	0.25	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	4.51	3.79	3.86	0.01	0.13	0.22	0.35	0.01	0.22	0.22	0.00	653.33	653.33	0.05	0.00	654.32
2018	4.48	3.44	3.80	0.01	0.13	0.19	0.32	0.00	0.19	0.19	0.00	654.01	654.01	0.04	0.00	654.92
2019	4.43	3.13	3.73	0.01	0.13	0.16	0.30	0.00	0.16	0.16	0.00	652.39	652.39	0.04	0.00	653.22
2020	4.40	2.85	3.69	0.01	0.14	0.14	0.28	0.00	0.14	0.14	0.00	653.43	653.43	0.04	0.00	654.19
2021	4.35	2.57	3.64	0.01	0.13	0.12	0.25	0.00	0.12	0.12	0.00	656.96	656.96	0.03	0.00	657.67
2022	4.31	2.33	3.58	0.01	0.13	0.10	0.24	0.00	0.10	0.10	0.00	653.16	653.16	0.03	0.00	653.82
2023	0.88	0.45	0.75	0.00	0.03	0.02	0.05	0.00	0.02	0.02	0.00	137.37	137.37	0.01	0.00	137.50

Total	**34.78**	**32.52**	**33.90**	**0.09**	**1.80**	**1.75**	**3.57**	**0.30**	**1.75**	**2.04**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	2.28	4.91	3.55	0.01	0.29	0.21	0.51	0.10	0.21	0.32	0.00	597.07	597.07	0.06	0.00	598.26
2015	3.23	4.33	3.56	0.01	0.08	0.24	0.32	0.00	0.24	0.24	0.00	567.86	567.86	0.05	0.00	568.98
2016	5.65	4.67	4.02	0.01	0.12	0.26	0.38	0.01	0.26	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	5.61	4.54	3.93	0.01	0.12	0.24	0.37	0.01	0.24	0.25	0.00	653.33	653.33	0.05	0.00	654.32
2018	5.61	4.46	3.88	0.01	0.12	0.24	0.36	0.00	0.24	0.24	0.00	654.01	654.01	0.04	0.00	654.92
2019	5.59	4.36	3.83	0.01	0.12	0.23	0.35	0.00	0.23	0.23	0.00	652.39	652.39	0.04	0.00	653.22
2020	5.60	4.30	3.80	0.01	0.12	0.22	0.35	0.00	0.22	0.22	0.00	653.43	653.43	0.04	0.00	654.19
2021	5.57	4.20	3.77	0.01	0.12	0.22	0.34	0.00	0.21	0.22	0.00	656.96	656.96	0.03	0.00	657.67
2022	5.54	4.12	3.72	0.01	0.12	0.21	0.33	0.00	0.21	0.21	0.00	653.16	653.16	0.03	0.00	653.82
2023	1.14	0.86	0.78	0.00	0.03	0.04	0.07	0.00	0.04	0.04	0.00	137.37	137.37	0.01	0.00	137.50
Total	**45.82**	**40.75**	**34.84**	**0.09**	**1.24**	**2.11**	**3.38**	**0.12**	**2.10**	**2.23**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	19.73	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

Energy	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	16,038.84	16,038.84	0.61	0.28	16,138.55
Mobile	55.79	195.07	533.60	1.47	33.78	6.60	40.39	1.50	6.60	8.10	0.00	38,780.47	38,780.47	3.58	0.00	38,855.67
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	32,462.96	32,462.96	626.23	16.05	50,588.34
Total	**75.97**	**199.14**	**537.02**	**1.49**	**33.78**	**6.60**	**40.70**	**1.50**	**6.60**	**8.41**	**49,129.60**	**87,282.27**	**136,411.87**	**3,533.90**	**16.33**	**215,685.16**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	18.48	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
Energy	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	13,233.92	13,233.92	0.50	0.23	13,316.17
Mobile	55.79	195.07	533.60	1.47	33.78	6.60	40.39	1.50	6.60	8.10	0.00	38,780.47	38,780.47	3.58	0.00	38,855.67
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	25,972.38	25,972.38	500.98	12.84	40,472.70
Total	**74.65**	**198.53**	**536.51**	**1.49**	**33.78**	**6.60**	**40.65**	**1.50**	**6.60**	**8.36**	**49,129.60**	**77,986.77**	**127,116.37**	**3,408.54**	**13.07**	**202,747.14**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
Vegetation Land Change					-1,757.70
Total					**-1,757.70**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.75	0.43	0.00		0.04	0.04		0.04	0.04	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.09**	**0.75**	**0.43**	**0.00**	**0.33**	**0.04**	**0.37**	**0.12**	**0.04**	**0.16**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.12	0.00	0.12	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.33	0.61	0.40	0.00		0.03	0.03		0.03	0.03	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.33**	**0.61**	**0.40**	**0.00**	**0.12**	**0.03**	**0.15**	**0.04**	**0.03**	**0.07**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.42	0.00	0.42	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.50	4.03	2.26	0.00		0.19	0.19		0.19	0.19	0.00	438.16	438.16	0.04	0.00	439.01
Total	**0.50**	**4.03**	**2.26**	**0.00**	**0.42**	**0.19**	**0.61**	**0.16**	**0.19**	**0.35**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	1.70	3.64	2.52	0.00		0.15	0.15		0.15	0.15	0.00	438.16	438.16	0.04	0.00	439.01
Total	**1.70**	**3.64**	**2.52**	**0.00**	**0.15**	**0.15**	**0.30**	**0.06**	**0.15**	**0.21**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

3.4 Underground Utilities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.49	0.39	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.07**	**0.49**	**0.39**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.16	0.50	0.42	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.16**	**0.50**	**0.42**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.19	0.12	0.00		0.02	0.02		0.02	0.02	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.03**	**0.19**	**0.12**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.15	0.11	0.00		0.01	0.01		0.01	0.01	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.15**	**0.11**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.13	0.80	0.54	0.00		0.07	0.07		0.07	0.07	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.13**	**0.80**	**0.54**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16

Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	0.67	0.50	0.00		0.04	0.04		0.04	0.04	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.39**	**0.67**	**0.50**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

3.6 Building Construction - 2015

Unmitigated Construction On-Site

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

Off-Road	0.45	3.03	2.39	0.00		0.19	0.19		0.19	0.19	0.00	381.12	381.12	0.04	0.00	381.89
Total	**0.45**	**3.03**	**2.39**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.27	3.19	2.41	0.00		0.17	0.17		0.17	0.17	0.00	381.12	381.12	0.04	0.00	381.89
Total	**1.27**	**3.19**	**2.41**	**0.00**		**0.17**	**0.17**		**0.17**	**0.17**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.01	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.05**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.59	3.95	3.03	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**1.59**	**3.95**	**3.03**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

3.6 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.89	3.01	0.01		0.21	0.21		0.21	0.21	0.00	476.40	476.40	0.04	0.00	477.20
Total	**1.57**	**3.89**	**3.01**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26

Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.86	3.02	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.04	0.00	478.97

Total	**1.57**	**3.86**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.81	3.01	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.03	0.00	478.91
Total	**1.56**	**3.81**	**3.01**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.79	3.02	0.01		0.20	0.20		0.20	0.20	0.00	480.06	480.06	0.03	0.00	480.68
Total	**1.56**	**3.79**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.55	3.73	3.01	0.01		0.19	0.19		0.19	0.19	0.00	478.23	478.23	0.03	0.00	478.79
Total	**1.55**	**3.73**	**3.01**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.54	3.69	3.00	0.01		0.19	0.19		0.19	0.19	0.00	476.40	476.40	0.02	0.00	476.92
Total	**1.54**	**3.69**	**3.00**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.02	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.07**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.60	0.00		0.01	0.01		0.01	0.01	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.06**	**0.36**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.33	0.77	0.63	0.00		0.04	0.04		0.04	0.04	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.33**	**0.77**	**0.63**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	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
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01

Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	55.79	195.07	533.60	1.47	33.78	6.60	40.39	1.50	6.60	8.10	0.00	38,780.47	38,780.47	3.58	0.00	38,855.67
Unmitigated	55.79	195.07	533.60	1.47	33.78	6.60	40.39	1.50	6.60	8.10	0.00	38,780.47	38,780.47	3.58	0.00	38,855.67
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28,981.26	5,488.56	2827.44	63,904,887	63,904,887
Office Park	1,492.37	214.32	99.32	2,783,889	2,783,889
Total	30,473.63	5,702.88	2,926.76	66,688,777	66,688,777

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	9,465.35	9,465.35	0.43	0.16	9,524.67
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	11,607.59	11,607.59	0.52	0.20	11,680.33
NaturalGas Mitigated	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	3,768.56	3,768.56	0.07	0.07	3,791.50
NaturalGas Unmitigated	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	4,431.26	4,431.26	0.08	0.08	4,458.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	8.15384e+007	0.44	4.00	3.36	0.02		0.00	0.30		0.00	0.30	0.00	4,351.20	4,351.20	0.08	0.08	4,377.68
Office Park	1.50021e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	80.06	80.06	0.00	0.00	80.54
Total		**0.45**	**4.07**	**3.42**	**0.02**		**0.00**	**0.31**		**0.00**	**0.31**	**0.00**	**4,431.26**	**4,431.26**	**0.08**	**0.08**	**4,458.22**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	6.9345e+007	0.37	3.40	2.86	0.02		0.00	0.26		0.00	0.26	0.00	3,700.52	3,700.52	0.07	0.07	3,723.04
Office Park	1.27518e+006	0.01	0.06	0.05	0.00		0.00	0.00		0.00	0.00	0.00	68.05	68.05	0.00	0.00	68.46
Total		**0.38**	**3.46**	**2.91**	**0.02**		**0.00**	**0.26**		**0.00**	**0.26**	**0.00**	**3,768.57**	**3,768.57**	**0.07**	**0.07**	**3,791.50**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.83783e+007					11,164.70	0.50	0.19	11,234.66
Office Park	1.52242e+006					442.89	0.02	0.01	445.67
Total						**11,607.59**	**0.52**	**0.20**	**11,680.33**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.12765e+007					9,098.69	0.41	0.16	9,155.70
Office Park	1.26041e+006					366.67	0.02	0.01	368.97
Total						**9,465.36**	**0.43**	**0.17**	**9,524.67**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	18.48	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
Unmitigated	19.73	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.75					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Landscaping	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
Total	**19.73**	**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**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	15.50					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**18.48**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					25,972.38	500.98	12.84	40,472.70
Unmitigated					32,462.96	626.23	16.05	50,588.34
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	20444.6 / 0					32,411.64	625.52	16.03	50,516.37
Office Park	23.2262 / 14.2354					51.32	0.71	0.02	71.97
Total						**32,462.96**	**626.23**	**16.05**	**50,588.34**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	16355.7 / 0					25,929.32	500.41	12.82	40,413.09
Office Park	18.581 / 13.3671					43.07	0.57	0.01	59.61
Total						**25,972.39**	**500.98**	**12.83**	**40,472.70**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					49,129.60	2,903.48	0.00	110,102.60
Unmitigated					49,129.60	2,903.48	0.00	110,102.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e

Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					-1,757.70	0.00	0.00	-1,757.70
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Cropland	283.5 / 0					-1,757.70	0.00	0.00	-1,757.70
Total						**-1,757.70**	**0.00**	**0.00**	**-1,757.70**

South Lathrop Specific Plan

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	130.68	1000sqft
General Light Industry	4158	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2		2.7		
		Precipitation Freq (Days)			
			51		

1.3 User Entered Comments

Project Characteristics -

Land Use - Industrial acreage increased from default value of 95 to actual value of 222. Commercial acreage increased from default value of 3 to actual value of 10.

Construction Phase - Adjusted to construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Added 2 excavators and 1 tractor/loader/backhoe to defaults

Trips and VMT - Building Construction and Architectural Coating Worker Trips per day and Vendor Trips per day reduced to 40 and 20 based on expected building construction type and schedule

Grading - Adjusted total acres disturbed to match project description.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Mitigation reductions per South County AQMD Fugitive dust mitigation reductions (Tables Xi-A through XI-E) and Off-road mitigation reductions (Tables I through III)

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - CAPCOA mitigation reductions.

Water Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.70	5.47	3.30	0.01	0.76	0.27	1.03	0.28	0.27	0.55	0.00	597.07	597.07	0.06	0.00	598.26
2015	2.14	4.31	3.58	0.01	0.09	0.28	0.37	0.00	0.28	0.28	0.00	567.86	567.86	0.05	0.00	568.98
2016	4.58	4.18	3.97	0.01	0.13	0.25	0.38	0.01	0.25	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	4.51	3.79	3.86	0.01	0.13	0.22	0.35	0.01	0.22	0.22	0.00	653.33	653.33	0.05	0.00	654.32
2018	4.48	3.44	3.80	0.01	0.13	0.19	0.32	0.00	0.19	0.19	0.00	654.01	654.01	0.04	0.00	654.92
2019	4.43	3.13	3.73	0.01	0.13	0.16	0.30	0.00	0.16	0.16	0.00	652.39	652.39	0.04	0.00	653.22
2020	4.40	2.85	3.69	0.01	0.14	0.14	0.28	0.00	0.14	0.14	0.00	653.43	653.43	0.04	0.00	654.19
2021	4.35	2.57	3.64	0.01	0.13	0.12	0.25	0.00	0.12	0.12	0.00	656.96	656.96	0.03	0.00	657.67
2022	4.31	2.33	3.58	0.01	0.13	0.10	0.24	0.00	0.10	0.10	0.00	653.16	653.16	0.03	0.00	653.82
2023	0.88	0.45	0.75	0.00	0.03	0.02	0.05	0.00	0.02	0.02	0.00	137.37	137.37	0.01	0.00	137.50

Total	**34.78**	**32.52**	**33.90**	**0.09**	**1.80**	**1.75**	**3.57**	**0.30**	**1.75**	**2.04**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	2.28	4.91	3.55	0.01	0.29	0.21	0.51	0.10	0.21	0.32	0.00	597.07	597.07	0.06	0.00	598.26
2015	3.23	4.33	3.56	0.01	0.08	0.24	0.32	0.00	0.24	0.24	0.00	567.86	567.86	0.05	0.00	568.98
2016	5.65	4.67	4.02	0.01	0.12	0.26	0.38	0.01	0.26	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	5.61	4.54	3.93	0.01	0.12	0.24	0.37	0.01	0.24	0.25	0.00	653.33	653.33	0.05	0.00	654.32
2018	5.61	4.46	3.88	0.01	0.12	0.24	0.36	0.00	0.24	0.24	0.00	654.01	654.01	0.04	0.00	654.92
2019	5.59	4.36	3.83	0.01	0.12	0.23	0.35	0.00	0.23	0.23	0.00	652.39	652.39	0.04	0.00	653.22
2020	5.60	4.30	3.80	0.01	0.12	0.22	0.35	0.00	0.22	0.22	0.00	653.43	653.43	0.04	0.00	654.19
2021	5.57	4.20	3.77	0.01	0.12	0.22	0.34	0.00	0.21	0.22	0.00	656.96	656.96	0.03	0.00	657.67
2022	5.54	4.12	3.72	0.01	0.12	0.21	0.33	0.00	0.21	0.21	0.00	653.16	653.16	0.03	0.00	653.82
2023	1.14	0.86	0.78	0.00	0.03	0.04	0.07	0.00	0.04	0.04	0.00	137.37	137.37	0.01	0.00	137.50
Total	**45.82**	**40.75**	**34.84**	**0.09**	**1.24**	**2.11**	**3.38**	**0.12**	**2.10**	**2.23**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	19.73	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

Energy	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	16,038.84	16,038.84	0.61	0.28	16,138.55
Mobile	37.80	143.19	357.66	0.36	33.76	4.77	38.53	1.48	4.77	6.24	0.00	37,260.06	37,260.06	2.35	0.00	37,309.49
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	32,462.96	32,462.96	626.23	16.05	50,588.34
Total	**57.98**	**147.26**	**361.08**	**0.38**	**33.76**	**4.77**	**38.84**	**1.48**	**4.77**	**6.55**	**49,129.60**	**85,761.86**	**134,891.46**	**3,532.67**	**16.33**	**214,138.98**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	18.48	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
Energy	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	13,233.92	13,233.92	0.50	0.23	13,316.17
Mobile	37.80	143.19	357.66	0.36	33.76	4.77	38.53	1.48	4.77	6.24	0.00	37,260.06	37,260.06	2.35	0.00	37,309.49
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	25,972.38	25,972.38	500.98	12.84	40,472.70
Total	**56.66**	**146.65**	**360.57**	**0.38**	**33.76**	**4.77**	**38.79**	**1.48**	**4.77**	**6.50**	**49,129.60**	**76,466.36**	**125,595.96**	**3,407.31**	**13.07**	**201,200.96**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT
Vegetation Land Change					-1,757.70
Total					**-1,757.70**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.75	0.43	0.00		0.04	0.04		0.04	0.04	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.09**	**0.75**	**0.43**	**0.00**	**0.33**	**0.04**	**0.37**	**0.12**	**0.04**	**0.16**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.12	0.00	0.12	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.33	0.61	0.40	0.00		0.03	0.03		0.03	0.03	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.33**	**0.61**	**0.40**	**0.00**	**0.12**	**0.03**	**0.15**	**0.04**	**0.03**	**0.07**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.42	0.00	0.42	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.50	4.03	2.26	0.00		0.19	0.19		0.19	0.19	0.00	438.16	438.16	0.04	0.00	439.01
Total	**0.50**	**4.03**	**2.26**	**0.00**	**0.42**	**0.19**	**0.61**	**0.16**	**0.19**	**0.35**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	1.70	3.64	2.52	0.00		0.15	0.15		0.15	0.15	0.00	438.16	438.16	0.04	0.00	439.01
Total	**1.70**	**3.64**	**2.52**	**0.00**	**0.15**	**0.15**	**0.30**	**0.06**	**0.15**	**0.21**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

3.4 Underground Utilities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.49	0.39	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.07**	**0.49**	**0.39**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.16	0.50	0.42	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.16**	**0.50**	**0.42**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.19	0.12	0.00		0.02	0.02		0.02	0.02	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.03**	**0.19**	**0.12**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.15	0.11	0.00		0.01	0.01		0.01	0.01	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.15**	**0.11**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.13	0.80	0.54	0.00		0.07	0.07		0.07	0.07	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.13**	**0.80**	**0.54**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16

Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	0.67	0.50	0.00		0.04	0.04		0.04	0.04	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.39**	**0.67**	**0.50**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

3.6 Building Construction - 2015

Unmitigated Construction On-Site

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

Off-Road	0.45	3.03	2.39	0.00		0.19	0.19		0.19	0.19	0.00	381.12	381.12	0.04	0.00	381.89
Total	**0.45**	**3.03**	**2.39**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.27	3.19	2.41	0.00		0.17	0.17		0.17	0.17	0.00	381.12	381.12	0.04	0.00	381.89
Total	**1.27**	**3.19**	**2.41**	**0.00**		**0.17**	**0.17**		**0.17**	**0.17**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Mitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.01	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.05**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.59	3.95	3.03	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**1.59**	**3.95**	**3.03**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

3.6 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.89	3.01	0.01		0.21	0.21		0.21	0.21	0.00	476.40	476.40	0.04	0.00	477.20
Total	**1.57**	**3.89**	**3.01**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26

Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.86	3.02	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.04	0.00	478.97

Total	**1.57**	**3.86**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.81	3.01	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.03	0.00	478.91
Total	**1.56**	**3.81**	**3.01**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.79	3.02	0.01		0.20	0.20		0.20	0.20	0.00	480.06	480.06	0.03	0.00	480.68
Total	**1.56**	**3.79**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.55	3.73	3.01	0.01		0.19	0.19		0.19	0.19	0.00	478.23	478.23	0.03	0.00	478.79
Total	**1.55**	**3.73**	**3.01**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.54	3.69	3.00	0.01		0.19	0.19		0.19	0.19	0.00	476.40	476.40	0.02	0.00	476.92
Total	**1.54**	**3.69**	**3.00**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.02	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.07**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.36	0.60	0.00		0.01	0.01		0.01	0.01	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.06**	**0.36**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	0.33	0.77	0.63	0.00		0.04	0.04		0.04	0.04	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.33**	**0.77**	**0.63**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	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
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01

Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

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

Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	37.80	143.19	357.66	0.36	33.76	4.77	38.53	1.48	4.77	6.24	0.00	37,260.06	37,260.06	2.35	0.00	37,309.49
Unmitigated	37.80	143.19	357.66	0.36	33.76	4.77	38.53	1.48	4.77	6.24	0.00	37,260.06	37,260.06	2.35	0.00	37,309.49
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28,981.26	5,488.56	2827.44	63,904,887	63,904,887
Office Park	1,492.37	214.32	99.32	2,783,889	2,783,889
Total	30,473.63	5,702.88	2,926.76	66,688,777	66,688,777

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	9,465.35	9,465.35	0.43	0.16	9,524.67
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	11,607.59	11,607.59	0.52	0.20	11,680.33
NaturalGas Mitigated	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	3,768.56	3,768.56	0.07	0.07	3,791.50
NaturalGas Unmitigated	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	4,431.26	4,431.26	0.08	0.08	4,458.22
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	8.15384e+007	0.44	4.00	3.36	0.02		0.00	0.30		0.00	0.30	0.00	4,351.20	4,351.20	0.08	0.08	4,377.68
Office Park	1.50021e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	80.06	80.06	0.00	0.00	80.54
Total		**0.45**	**4.07**	**3.42**	**0.02**		**0.00**	**0.31**		**0.00**	**0.31**	**0.00**	**4,431.26**	**4,431.26**	**0.08**	**0.08**	**4,458.22**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	6.9345e+007	0.37	3.40	2.86	0.02		0.00	0.26		0.00	0.26	0.00	3,700.52	3,700.52	0.07	0.07	3,723.04
Office Park	1.27518e+006	0.01	0.06	0.05	0.00		0.00	0.00		0.00	0.00	0.00	68.05	68.05	0.00	0.00	68.46
Total		**0.38**	**3.46**	**2.91**	**0.02**		**0.00**	**0.26**		**0.00**	**0.26**	**0.00**	**3,768.57**	**3,768.57**	**0.07**	**0.07**	**3,791.50**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.83783e+007					11,164.70	0.50	0.19	11,234.66
Office Park	1.52242e+006					442.89	0.02	0.01	445.67
Total						**11,607.59**	**0.52**	**0.20**	**11,680.33**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.12765e+007					9,098.69	0.41	0.16	9,155.70
Office Park	1.26041e+006					366.67	0.02	0.01	368.97
Total						**9,465.36**	**0.43**	**0.17**	**9,524.67**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	18.48	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
Unmitigated	19.73	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.75					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Landscaping	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
Total	**19.73**	**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**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	15.50					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**18.48**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					25,972.38	500.98	12.84	40,472.70
Unmitigated					32,462.96	626.23	16.05	50,588.34
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	20444.6 / 0					32,411.64	625.52	16.03	50,516.37
Office Park	23.2262 / 14.2354					51.32	0.71	0.02	71.97
Total						**32,462.96**	**626.23**	**16.05**	**50,588.34**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	16355.7 / 0					25,929.32	500.41	12.82	40,413.09
Office Park	18.581 / 13.3671					43.07	0.57	0.01	59.61
Total						**25,972.39**	**500.98**	**12.83**	**40,472.70**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					49,129.60	2,903.48	0.00	110,102.60
Unmitigated					49,129.60	2,903.48	0.00	110,102.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e

Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					-1,757.70	0.00	0.00	-1,757.70
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Cropland	283.5 / 0					-1,757.70	0.00	0.00	-1,757.70
Total						**-1,757.70**	**0.00**	**0.00**	**-1,757.70**

South Lathrop Specific Plan

San Joaquin County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Office Park	130.68	1000sqft
General Light Industry	4158	1000sqft

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**		**Utility Company**	Pacific Gas & Electric Company
Climate Zone	2		2.7		
		Precipitation Freq (Days)			
			51		

1.3 User Entered Comments

Project Characteristics -

Land Use - Industrial acreage increased from default value of 95 to actual value of 222. Commercial acreage increased from default value of 3 to actual value of 10.

Construction Phase - Adjusted to construction schedule.

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Off-road Equipment - Added 2 excavators and 1 tractor/loader/backhoe to defaults

Trips and VMT - Building Construction and Architectural Coating Worker Trips per day and Vendor Trips per day reduced to 40 and 20 based on expected building construction type and schedule

Grading - Adjusted total acres disturbed to match project description.

Land Use Change -

Sequestration -

Construction Off-road Equipment Mitigation - Mitigation reductions per South County AQMD Fugitive dust mitigation reductions (Tables Xi-A through XI-E) and Off-road mitigation reductions (Tables I through III)

Mobile Land Use Mitigation -

Area Mitigation -

Energy Mitigation - CAPCOA mitigation reductions.

Water Mitigation -

Waste Mitigation -

Mobile Commute Mitigation -

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.70	5.47	3.30	0.01	0.76	0.27	1.03	0.28	0.27	0.55	0.00	597.07	597.07	0.06	0.00	598.26
2015	2.14	4.31	3.58	0.01	0.09	0.28	0.37	0.00	0.28	0.28	0.00	567.86	567.86	0.05	0.00	568.98
2016	4.58	4.18	3.97	0.01	0.13	0.25	0.38	0.01	0.25	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	4.51	3.79	3.86	0.01	0.13	0.22	0.35	0.01	0.22	0.22	0.00	653.33	653.33	0.05	0.00	654.32
2018	4.48	3.44	3.80	0.01	0.13	0.19	0.32	0.00	0.19	0.19	0.00	654.01	654.01	0.04	0.00	654.92
2019	4.43	3.13	3.73	0.01	0.13	0.16	0.30	0.00	0.16	0.16	0.00	652.39	652.39	0.04	0.00	653.22
2020	4.40	2.85	3.69	0.01	0.14	0.14	0.28	0.00	0.14	0.14	0.00	653.43	653.43	0.04	0.00	654.19
2021	4.35	2.57	3.64	0.01	0.13	0.12	0.25	0.00	0.12	0.12	0.00	656.96	656.96	0.03	0.00	657.67

2022	4.31	2.33	3.58	0.01	0.13	0.10	0.24	0.00	0.10	0.10	0.00	653.16	653.16	0.03	0.00	653.82
2023	0.88	0.45	0.75	0.00	0.03	0.02	0.05	0.00	0.02	0.02	0.00	137.37	137.37	0.01	0.00	137.50
Total	**34.78**	**32.52**	**33.90**	**0.09**	**1.80**	**1.75**	**3.57**	**0.30**	**1.75**	**2.04**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	2.28	4.91	3.55	0.01	0.29	0.21	0.51	0.10	0.21	0.32	0.00	597.07	597.07	0.06	0.00	598.26
2015	3.23	4.33	3.56	0.01	0.08	0.24	0.32	0.00	0.24	0.24	0.00	567.86	567.86	0.05	0.00	568.98
2016	5.65	4.67	4.02	0.01	0.12	0.26	0.38	0.01	0.26	0.26	0.00	657.87	657.87	0.05	0.00	658.96
2017	5.61	4.54	3.93	0.01	0.12	0.24	0.37	0.01	0.24	0.25	0.00	653.33	653.33	0.05	0.00	654.32
2018	5.61	4.46	3.88	0.01	0.12	0.24	0.36	0.00	0.24	0.24	0.00	654.01	654.01	0.04	0.00	654.92
2019	5.59	4.36	3.83	0.01	0.12	0.23	0.35	0.00	0.23	0.23	0.00	652.39	652.39	0.04	0.00	653.22
2020	5.60	4.30	3.80	0.01	0.12	0.22	0.35	0.00	0.22	0.22	0.00	653.43	653.43	0.04	0.00	654.19
2021	5.57	4.20	3.77	0.01	0.12	0.22	0.34	0.00	0.21	0.22	0.00	656.96	656.96	0.03	0.00	657.67
2022	5.54	4.12	3.72	0.01	0.12	0.21	0.33	0.00	0.21	0.21	0.00	653.16	653.16	0.03	0.00	653.82
2023	1.14	0.86	0.78	0.00	0.03	0.04	0.07	0.00	0.04	0.04	0.00	137.37	137.37	0.01	0.00	137.50
Total	**45.82**	**40.75**	**34.84**	**0.09**	**1.24**	**2.11**	**3.38**	**0.12**	**2.10**	**2.23**	**0.00**	**5,883.45**	**5,883.45**	**0.40**	**0.00**	**5,891.84**

2.2 Overall Operational

Unmitigated Operational

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

Category	tons/yr										MT/yr					
Area	19.73	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
Energy	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	16,038.84	16,038.84	0.61	0.28	16,138.55
Mobile	17.70	65.32	157.83	0.36	33.77	2.25	36.02	0.60	2.17	2.77	0.00	30,187.77	30,187.77	1.07	0.00	30,210.28
Waste						0.00	0.00		0.00	0.00	49,129.60	0.00	49,129.60	2,903.48	0.00	110,102.60
Water						0.00	0.00		0.00	0.00	0.00	32,462.96	32,462.96	626.23	16.05	50,588.34
Total	**37.88**	**69.39**	**161.25**	**0.38**	**33.77**	**2.25**	**36.33**	**0.60**	**2.17**	**3.08**	**49,129.60**	**78,689.57**	**127,819.17**	**3,531.39**	**16.33**	**207,039.77**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	18.48	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
Energy	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	13,233.06	13,233.06	0.50	0.23	13,315.31
Mobile	16.05	59.40	141.07	0.31	28.91	1.95	30.86	0.52	1.88	2.40	0.00	26,046.48	26,046.48	0.94	0.00	26,066.26
Waste						0.00	0.00		0.00	0.00	24,564.80	0.00	24,564.80	1,451.74	0.00	55,051.30
Water						0.00	0.00		0.00	0.00	0.00	27,593.52	27,593.52	532.29	13.64	43,000.09
Total	**34.91**	**62.86**	**143.98**	**0.33**	**28.91**	**1.95**	**31.12**	**0.52**	**1.88**	**2.66**	**24,564.80**	**66,873.06**	**91,437.86**	**1,985.47**	**13.87**	**137,432.96**

2.3 Vegetation

Vegetation

	ROG	NOx	CO	SO2	CO2e
Category	tons				MT

New Trees					73.40
Vegetation Land Change					-1,757.70
Total					**-1,684.30**

3.0 Construction Detail

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Use Soil Stabilizer

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.33	0.00	0.33	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.09	0.75	0.43	0.00		0.04	0.04		0.04	0.04	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.09**	**0.75**	**0.43**	**0.00**	**0.33**	**0.04**	**0.37**	**0.12**	**0.04**	**0.16**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.12	0.00	0.12	0.04	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.33	0.61	0.40	0.00		0.03	0.03		0.03	0.03	0.00	72.53	72.53	0.01	0.00	72.69
Total	**0.33**	**0.61**	**0.40**	**0.00**	**0.12**	**0.03**	**0.15**	**0.04**	**0.03**	**0.07**	**0.00**	**72.53**	**72.53**	**0.01**	**0.00**	**72.69**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47	1.47	0.00	0.00	1.47

Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.47**	**1.47**	**0.00**	**0.00**	**1.47**

3.3 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.42	0.00	0.42	0.16	0.00	0.16	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.50	4.03	2.26	0.00		0.19	0.19		0.19	0.19	0.00	438.16	438.16	0.04	0.00	439.01
Total	**0.50**	**4.03**	**2.26**	**0.00**	**0.42**	**0.19**	**0.61**	**0.16**	**0.19**	**0.35**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.15	0.00	0.15	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	1.70	3.64	2.52	0.00		0.15	0.15		0.15	0.15	0.00	438.16	438.16	0.04	0.00	439.01
Total	**1.70**	**3.64**	**2.52**	**0.00**	**0.15**	**0.15**	**0.30**	**0.06**	**0.15**	**0.21**	**0.00**	**438.16**	**438.16**	**0.04**	**0.00**	**439.01**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.26	7.26	0.00	0.00	7.27
Total	**0.01**	**0.01**	**0.06**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.26**	**7.26**	**0.00**	**0.00**	**7.27**

3.4 Underground Utilities - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.07	0.49	0.39	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.07**	**0.49**	**0.39**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.16	0.50	0.42	0.00		0.03	0.03		0.03	0.03	0.00	58.92	58.92	0.01	0.00	59.03
Total	**0.16**	**0.50**	**0.42**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**58.92**	**58.92**	**0.01**	**0.00**	**59.03**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.12	2.12	0.00	0.00	2.12
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**2.12**	**2.12**	**0.00**	**0.00**	**2.12**

3.5 Paving - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.03	0.19	0.12	0.00		0.02	0.02		0.02	0.02	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.03**	**0.19**	**0.12**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.15	0.11	0.00		0.01	0.01		0.01	0.01	0.00	15.88	15.88	0.00	0.00	15.93
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.09**	**0.15**	**0.11**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**15.88**	**15.88**	**0.00**	**0.00**	**15.93**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73	0.73	0.00	0.00	0.74
Total	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.73**	**0.73**	**0.00**	**0.00**	**0.74**

3.5 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.13	0.80	0.54	0.00		0.07	0.07		0.07	0.07	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.13**	**0.80**	**0.54**	**0.00**		**0.07**	**0.07**		**0.07**	**0.07**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16

Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.39	0.67	0.50	0.00		0.04	0.04		0.04	0.04	0.00	70.12	70.12	0.01	0.00	70.34
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	**0.39**	**0.67**	**0.50**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**70.12**	**70.12**	**0.01**	**0.00**	**70.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.16	3.16	0.00	0.00	3.16
Total	**0.00**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**3.16**	**3.16**	**0.00**	**0.00**	**3.16**

3.6 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.45	3.03	2.39	0.00		0.19	0.19		0.19	0.19	0.00	381.12	381.12	0.04	0.00	381.89

Total	**0.45**	**3.03**	**2.39**	**0.00**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.27	3.19	2.41	0.00		0.17	0.17		0.17	0.17	0.00	381.12	381.12	0.04	0.00	381.89
Total	**1.27**	**3.19**	**2.41**	**0.00**		**0.17**	**0.17**		**0.17**	**0.17**	**0.00**	**381.12**	**381.12**	**0.04**	**0.00**	**381.89**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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

Vendor	0.03	0.32	0.18	0.00	0.01	0.01	0.03	0.00	0.01	0.01	0.00	52.35	52.35	0.00	0.00	52.37
Worker	0.02	0.02	0.24	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.00	33.05	33.05	0.00	0.00	33.09
Total	**0.05**	**0.34**	**0.42**	**0.00**	**0.05**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**85.40**	**85.40**	**0.00**	**0.00**	**85.46**

3.6 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.52	3.46	2.97	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**0.52**	**3.46**	**2.97**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

Mitigated Construction On-Site

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

Category	tons/yr										MT/yr					
Off-Road	1.59	3.95	3.03	0.01		0.21	0.21		0.21	0.21	0.00	478.23	478.23	0.04	0.00	479.11
Total	**1.59**	**3.95**	**3.03**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**479.11**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.36	0.21	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.64	65.64	0.00	0.00	65.67
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.05**	**0.39**	**0.48**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**106.00**	**106.00**	**0.00**	**0.00**	**106.08**

3.6 Building Construction - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.48	3.13	2.94	0.01		0.18	0.18		0.18	0.18	0.00	476.40	476.40	0.04	0.00	477.20
Total	**0.48**	**3.13**	**2.94**	**0.01**		**0.18**	**0.18**		**0.18**	**0.18**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Unmitigated Construction Off-Site

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

Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.89	3.01	0.01		0.21	0.21		0.21	0.21	0.00	476.40	476.40	0.04	0.00	477.20
Total	**1.57**	**3.89**	**3.01**	**0.01**		**0.21**	**0.21**		**0.21**	**0.21**	**0.00**	**476.40**	**476.40**	**0.04**	**0.00**	**477.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.33	0.19	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.35	65.35	0.00	0.00	65.38
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.05**	**0.35**	**0.43**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.56**	**104.56**	**0.00**	**0.00**	**104.64**

3.6 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.44	2.84	2.93	0.01		0.16	0.16		0.16	0.16	0.00	478.23	478.23	0.04	0.00	478.97
Total	**0.44**	**2.84**	**2.93**	**0.01**		**0.16**	**0.16**		**0.16**	**0.16**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.57	3.86	3.02	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.04	0.00	478.97
Total	**1.57**	**3.86**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.04**	**0.00**	**478.97**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.03	0.30	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.57	65.57	0.00	0.00	65.60
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.05**	**0.32**	**0.40**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**104.04**	**104.04**	**0.00**	**0.00**	**104.11**

3.6 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.40	2.57	2.92	0.01		0.13	0.13		0.13	0.13	0.00	478.23	478.23	0.03	0.00	478.91
Total	**0.40**	**2.57**	**2.92**	**0.01**		**0.13**	**0.13**		**0.13**	**0.13**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.81	3.01	0.01		0.20	0.20		0.20	0.20	0.00	478.23	478.23	0.03	0.00	478.91
Total	**1.56**	**3.81**	**3.01**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.91**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.27	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.55	65.55	0.00	0.00	65.58
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.04**	**0.29**	**0.36**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**103.21**	**103.21**	**0.00**	**0.00**	**103.28**

3.6 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.37	2.34	2.91	0.01		0.11	0.11		0.11	0.11	0.00	480.06	480.06	0.03	0.00	480.68
Total	**0.37**	**2.34**	**2.91**	**0.01**		**0.11**	**0.11**		**0.11**	**0.11**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.56	3.79	3.02	0.01		0.20	0.20		0.20	0.20	0.00	480.06	480.06	0.03	0.00	480.68
Total	**1.56**	**3.79**	**3.02**	**0.01**		**0.20**	**0.20**		**0.20**	**0.20**	**0.00**	**480.06**	**480.06**	**0.03**	**0.00**	**480.68**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.26	0.16	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.79	65.79	0.00	0.00	65.81
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.04**	**0.28**	**0.35**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**102.88**	**102.88**	**0.00**	**0.00**	**102.93**

3.6 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	2.10	2.88	0.01		0.10	0.10		0.10	0.10	0.00	478.23	478.23	0.03	0.00	478.79
Total	**0.33**	**2.10**	**2.88**	**0.01**		**0.10**	**0.10**		**0.10**	**0.10**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.55	3.73	3.01	0.01		0.19	0.19		0.19	0.19	0.00	478.23	478.23	0.03	0.00	478.79
Total	**1.55**	**3.73**	**3.01**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**478.23**	**478.23**	**0.03**	**0.00**	**478.79**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.24	0.15	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.52	65.52	0.00	0.00	65.54
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.04**	**0.26**	**0.34**	**0.00**	**0.07**	**0.01**	**0.08**	**0.00**	**0.01**	**0.01**	**0.00**	**105.49**	**105.49**	**0.00**	**0.00**	**105.55**

3.6 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.31	1.89	2.86	0.01		0.08	0.08		0.08	0.08	0.00	476.40	476.40	0.02	0.00	476.92
Total	**0.31**	**1.89**	**2.86**	**0.01**		**0.08**	**0.08**		**0.08**	**0.08**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27

Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.08**	**0.01**	**0.09**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.54	3.69	3.00	0.01		0.19	0.19		0.19	0.19	0.00	476.40	476.40	0.02	0.00	476.92
Total	**1.54**	**3.69**	**3.00**	**0.01**		**0.19**	**0.19**		**0.19**	**0.19**	**0.00**	**476.40**	**476.40**	**0.02**	**0.00**	**476.92**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.02	0.22	0.14	0.00	0.02	0.01	0.02	0.00	0.01	0.01	0.00	65.26	65.26	0.00	0.00	65.27
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.04**	**0.23**	**0.31**	**0.00**	**0.07**	**0.01**	**0.07**	**0.00**	**0.01**	**0.01**	**0.00**	**104.44**	**104.44**	**0.00**	**0.00**	**104.48**

3.6 Building Construction - 2023

Unmitigated Construction On-Site

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

Off-Road	0.06	0.36	0.60	0.00		0.01	0.01		0.01	0.01	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.06**	**0.36**	**0.60**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.33	0.77	0.63	0.00		0.04	0.04		0.04	0.04	0.00	100.78	100.78	0.00	0.00	100.88
Total	**0.33**	**0.77**	**0.63**	**0.00**		**0.04**	**0.04**		**0.04**	**0.04**	**0.00**	**100.78**	**100.78**	**0.00**	**0.00**	**100.88**

Mitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.80	13.80	0.00	0.00	13.81
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	8.17	8.17	0.00	0.00	8.17
Total	**0.00**	**0.04**	**0.06**	**0.00**	**0.01**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**21.97**	**21.97**	**0.00**	**0.00**	**21.98**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.48					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.02	0.13	0.09	0.00		0.01	0.01		0.01	0.01	0.00	12.50	12.50	0.00	0.00	12.53
Total	**1.50**	**0.13**	**0.09**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**12.50**	**12.50**	**0.00**	**0.00**	**12.53**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	15.57	15.57	0.00	0.00	15.59
Total	**0.01**	**0.01**	**0.11**	**0.00**	**0.02**	**0.00**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**15.57**	**15.57**	**0.00**	**0.00**	**15.59**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41
Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.05	0.31	0.25	0.00		0.03	0.03		0.03	0.03	0.00	33.28	33.28	0.00	0.00	33.36
Total	**3.98**	**0.31**	**0.25**	**0.00**		**0.03**	**0.03**		**0.03**	**0.03**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.36**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.03	0.27	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	40.36	40.36	0.00	0.00	40.41

Total	**0.02**	**0.03**	**0.27**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**40.36**	**40.36**	**0.00**	**0.00**	**40.41**

3.7 Architectural Coating - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.04	0.28	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.15	33.15	0.00	0.00	33.23
Total	**3.96**	**0.28**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.23**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.24	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.21	39.21	0.00	0.00	39.26
Total	**0.02**	**0.02**	**0.24**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.21**	**39.21**	**0.00**	**0.00**	**39.26**

3.7 Architectural Coating - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Unmitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.04	0.26	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.35
Total	**3.97**	**0.26**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.35**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.22	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	38.47	38.47	0.00	0.00	38.51
Total	**0.02**	**0.02**	**0.22**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**38.47**	**38.47**	**0.00**	**0.00**	**38.51**

3.7 Architectural Coating - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.24	0.24	0.00		0.02	0.02		0.02	0.02	0.00	33.28	33.28	0.00	0.00	33.34
Total	**3.96**	**0.24**	**0.24**	**0.00**		**0.02**	**0.02**		**0.02**	**0.02**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.34**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.20	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.66	37.66	0.00	0.00	37.70
Total	**0.02**	**0.02**	**0.20**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.66**	**37.66**	**0.00**	**0.00**	**37.70**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12

Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.95					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.22	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.41	33.41	0.00	0.00	33.46
Total	**3.98**	**0.22**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.41**	**33.41**	**0.00**	**0.00**	**33.46**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	37.09	37.09	0.00	0.00	37.12
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**37.09**	**37.09**	**0.00**	**0.00**	**37.12**

3.7 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.93					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.20	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.28	33.28	0.00	0.00	33.33
Total	**3.96**	**0.20**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.28**	**33.28**	**0.00**	**0.00**	**33.33**

Mitigated Construction Off-Site

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

Hauling	0.00	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
Vendor	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
Worker	0.02	0.02	0.19	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.97	39.97	0.00	0.00	40.01
Total	**0.02**	**0.02**	**0.19**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.97**	**39.97**	**0.00**	**0.00**	**40.01**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.06**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	3.92					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.03	0.18	0.24	0.00		0.01	0.01		0.01	0.01	0.00	33.15	33.15	0.00	0.00	33.20
Total	**3.95**	**0.18**	**0.24**	**0.00**		**0.01**	**0.01**		**0.01**	**0.01**	**0.00**	**33.15**	**33.15**	**0.00**	**0.00**	**33.20**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.02	0.01	0.17	0.00	0.05	0.00	0.05	0.00	0.00	0.00	0.00	39.18	39.18	0.00	0.00	39.21
Total	**0.02**	**0.01**	**0.17**	**0.00**	**0.05**	**0.00**	**0.05**	**0.00**	**0.00**	**0.00**	**0.00**	**39.18**	**39.18**	**0.00**	**0.00**	**39.21**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88
Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.80					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.01	0.03	0.05	0.00		0.00	0.00		0.00	0.00	0.00	6.76	6.76	0.00	0.00	6.77
Total	**0.81**	**0.03**	**0.05**	**0.00**		**0.00**	**0.00**		**0.00**	**0.00**	**0.00**	**6.76**	**6.76**	**0.00**	**0.00**	**6.77**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	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
Vendor	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
Worker	0.00	0.00	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.87	7.87	0.00	0.00	7.88

Total	**0.00**	**0.00**	**0.03**	**0.00**	**0.01**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**7.87**	**7.87**	**0.00**	**0.00**	**7.88**

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

Improve Pedestrian Network

Provide Traffic Calming Measures

Implement Trip Reduction Program

Encourage Telecommuting and Alternative Work Schedules

Provide Riade Sharing Program

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	16.05	59.40	141.07	0.31	28.91	1.95	30.86	0.52	1.88	2.40	0.00	26,046.48	26,046.48	0.94	0.00	26,066.26
Unmitigated	17.70	65.32	157.83	0.36	33.77	2.25	36.02	0.60	2.17	2.77	0.00	30,187.77	30,187.77	1.07	0.00	30,210.28
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

4.2 Trip Summary Information

	Average Daily Trip Rate		
	Unmitigated	Mitigated	

Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	28,981.26	5,488.56	2827.44	63,904,887	54,689,486
Office Park	1,492.37	214.32	99.32	2,783,889	2,391,565
Total	30,473.63	5,702.88	2,926.76	66,688,777	57,081,051

4.3 Trip Type Information

	Miles			Trip %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00
Office Park	9.50	7.30	7.30	33.00	48.00	19.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

Exceed Title 24

Install High Efficiency Lighting

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	9,464.50	9,464.50	0.43	0.16	9,523.81
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	11,607.59	11,607.59	0.52	0.20	11,680.33
NaturalGas Mitigated	0.38	3.46	2.91	0.02		0.00	0.26		0.00	0.26	0.00	3,768.56	3,768.56	0.07	0.07	3,791.50
NaturalGas Unmitigated	0.45	4.07	3.42	0.02		0.00	0.31		0.00	0.31	0.00	4,431.26	4,431.26	0.08	0.08	4,458.22

Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	8.15384e+007	0.44	4.00	3.36	0.02		0.00	0.30		0.00	0.30	0.00	4,351.20	4,351.20	0.08	0.08	4,377.68
Office Park	1.50021e+006	0.01	0.07	0.06	0.00		0.00	0.01		0.00	0.01	0.00	80.06	80.06	0.00	0.00	80.54
Total		**0.45**	**4.07**	**3.42**	**0.02**		**0.00**	**0.31**		**0.00**	**0.31**	**0.00**	**4,431.26**	**4,431.26**	**0.08**	**0.08**	**4,458.22**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
General Light Industry	6.9345e+007	0.37	3.40	2.86	0.02		0.00	0.26		0.00	0.26	0.00	3,700.52	3,700.52	0.07	0.07	3,723.04
Office Park	1.27518e+006	0.01	0.06	0.05	0.00		0.00	0.00		0.00	0.00	0.00	68.05	68.05	0.00	0.00	68.46
Total		**0.38**	**3.46**	**2.91**	**0.02**		**0.00**	**0.26**		**0.00**	**0.26**	**0.00**	**3,768.57**	**3,768.57**	**0.07**	**0.07**	**3,791.50**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.83783e+007					11,164.70	0.50	0.19	11,234.66
Office Park	1.52242e+006					442.89	0.02	0.01	445.67

Total						**11,607.59**	**0.52**	**0.20**	**11,680.33**

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
General Light Industry	3.12765e+007					9,098.69	0.41	0.16	9,155.70
Office Park	1.25747e+006					365.81	0.02	0.01	368.10
Total						**9,464.50**	**0.43**	**0.17**	**9,523.80**

6.0 Area Detail

6.1 Mitigation Measures Area

Use Low VOC Paint - Residential Interior

Use Low VOC Paint - Residential Exterior

Use Low VOC Paint - Non-Residential Interior

Use Low VOC Paint - Non-Residential Exterior

No Hearths Installed

Use Low VOC Cleaning Supplies

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

Mitigated	18.48	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
Unmitigated	19.73	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
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	16.75					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**19.73**	**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**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	2.98					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	15.50					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	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
Total	**18.48**	**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**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Use Reclaimed Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					27,593.52	532.29	13.64	43,000.09
Unmitigated					32,462.96	626.23	16.05	50,588.34
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	20444.6 / 0					32,411.64	625.52	16.03	50,516.37
Office Park	23.2262 / 14.2354					51.32	0.71	0.02	71.97
Total						**32,462.96**	**626.23**	**16.05**	**50,588.34**

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
General Light Industry	17377.9 / 0					27,549.90	531.69	13.62	42,938.91
Office Park	19.7423 / 12.1001					43.62	0.60	0.02	61.18
Total						**27,593.52**	**532.29**	**13.64**	**43,000.09**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					24,564.80	1,451.74	0.00	55,051.30
Unmitigated					49,129.60	2,903.48	0.00	110,102.60
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	241907					49,104.93	2,902.02	0.00	110,047.31
Office Park	121.53					24.67	1.46	0.00	55.29
Total						**49,129.60**	**2,903.48**	**0.00**	**110,102.60**

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
General Light Industry	120953					24,552.47	1,451.01	0.00	55,023.66
Office Park	60.765					12.33	0.73	0.00	27.64
Total						**24,564.80**	**1,451.74**	**0.00**	**55,051.30**

9.0 Vegetation

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons				MT			
Unmitigated					-1,684.30	0.00	0.00	-1,684.30
Total	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**

9.1 Vegetation Land Change

Vegetation Type

	Initial/Final	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	Acres	tons				MT			
Cropland	283.5 / 0					-1,757.70	0.00	0.00	-1,757.70
Total						**-1,757.70**	**0.00**	**0.00**	**-1,757.70**

9.1 Net New Trees

Species Class

	Number of Trees	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
		tons				MT			
Mixed Hardwood	100					73.40	0.00	0.00	73.40
Total						**73.40**	**0.00**	**0.00**	**73.40**

BIOLOGICAL STUDIES AND PERMITS

Special-Status Species Assessment

For

South Lathrop South Village

San Joaquin County, California

September 8, 2006

Prepared for:
Richland Planned Communities

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a special-status species assessment of 277-acre South Lathrop South Village project site. The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1 – *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The purpose of this special-status species assessment is to assess the potential for occurrence of special-status plant and wildlife species, or their habitat, within the project site.

The conclusions and recommendations presented in this report are based upon limited office review and do not include site reconnaissance or species-specific field surveys. Determinate-level surveys were not conducted.

METHODOLOGY

Special-Status Species Assessment

For the purposes of this assessment, "special-status species" refers to those plant or wildlife species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;

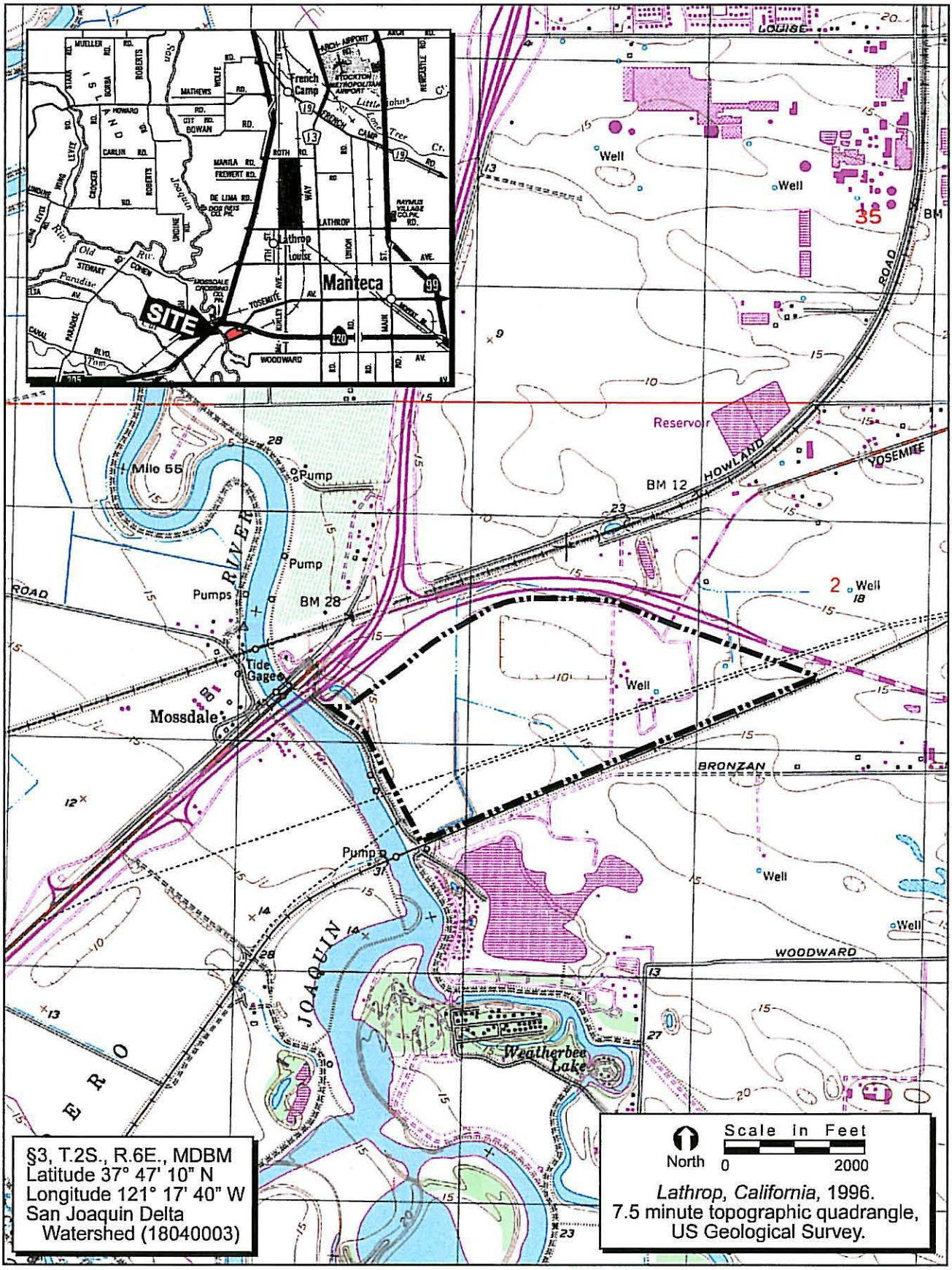

FIGURE 1. Project Site and Vicinity

2004-096 South Lathrop South Village

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- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are identified as a species of special concern by the California Department of Fish and Game (CDFG);
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.);
- Fully protected in California in accordance with the Fish and Game Code of California, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes); or
- Are tracked by CDFG's Natural Diversity Database (CNDDB), but do not have any of the above-listed designations.

Background information was collected on the potential existence of the special-status species within or near the project site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search for the "Lathrop, California" 7.5-minute quadrangle (CDFG 2003) (Attachment A);
- Species List for the "Lathrop, California" 7.5-minute quadrangle created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2006);
- California Native Plant Society's Inventory of Rare and Endangered Plants Record Search for the "Lathrop, California" 7.5-minute quadrangle (CNPS 2006);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Fairy Shrimps of California's Puddles, Pools, and Playas* (Eriksen and Belk 1999);
- *Bird Species of Special Concern in California* (Remsen, Jr. 1978);
- *Amphibian and Reptile Species of Special Concern in California* (Jennings and Hayes 1994);
- *Mammalian Species of Special Concern in California* (Williams 1986);
- *California's Wildlife*, Volumes I-III (Zeiner, *et al.* 1988, 1990a, 1990b); and
- *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, eds. 1988).

The special-status species assessment included a review of resource agency species lists, taxa-specific literature review, CNDDB query, previously conducted wetland delineation and an aerial photograph review. No site visit was conducted. The special-status species considered for this site are those that have a reasonable probability of occurring on-site under current site conditions. This assessment does not constitute determinate-level field surveys conducted according to agency-approved protocols.

RESULTS AND DISCUSSION

Existing Site Conditions

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. The vegetation within the irrigated pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), and birdsfoot trefoil (*Lotus corniculatus*). Riparian habitat is present along the western boundary of the site, adjacent to the San Joaquin River. Common vegetation in riparian corridors includes Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), willow (*Salix* species), blue elderberry (*Sambucus mexicana*), and mugwort (*Artemesia douglasiana*). There are several buildings located within the project site including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. The rest of the project site is ruderal grassland habitat. Vegetation within the ruderal grassland habitat includes yellow-star thistle (*Centaurea solstitialis*), telegraph weed (*Heterotheca grandiflora*), and common mallow (*Malva neglecta*).

A detention basin located north of a truck maintenance yard collects runoff from storm drains within the parking lot throughout the year. A stock pond, three seasonal wetlands, and two seasonal wetland swales are present in the cattle pasture.

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992), seven soil units, or types, have been mapped within the project site (Figure 2 – *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992).

The surrounding properties include agricultural, rural residential properties, and a gravel mine.

Special-Status Species

Based upon vegetation communities present on-site, current site conditions, and known species distributions, a list of potentially occurring special-status species has been developed for South Lathrop South Village (Table 1). CNDDB occurrences of special-status species in the vicinity of the project site are presented in Figure 3. There are currently no previously documented occurrences of special-status species within the site (CDFG 2003). Potentially occurring special-status species include three plants, one invertebrate, one reptile, sixteen birds, and five mammals.

Plants

Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). Occurrences of Delta button-celery and Wright's trichocoronis have been reported immediately adjacent to the northwest corner of the site (CDFG 2003).

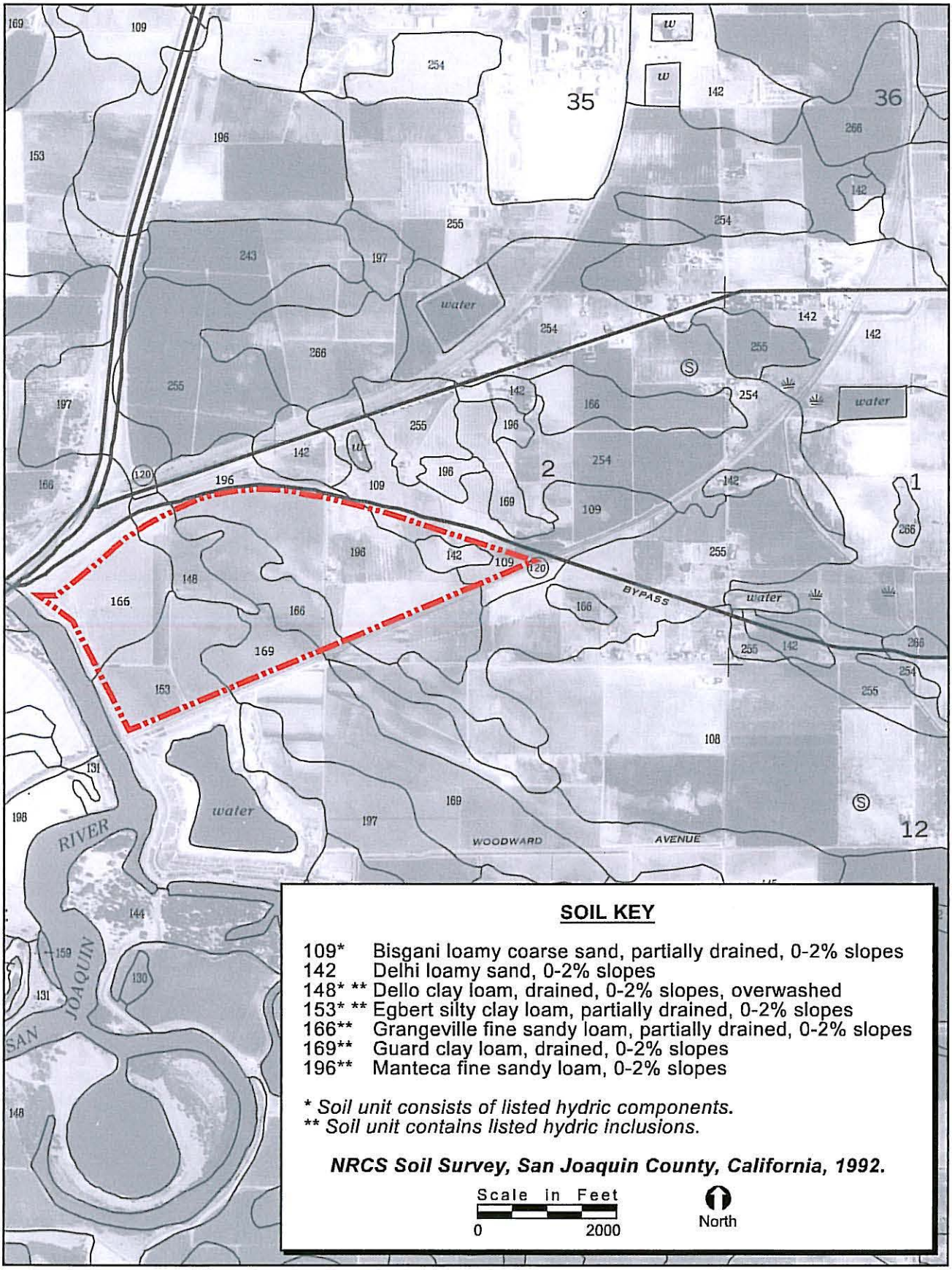


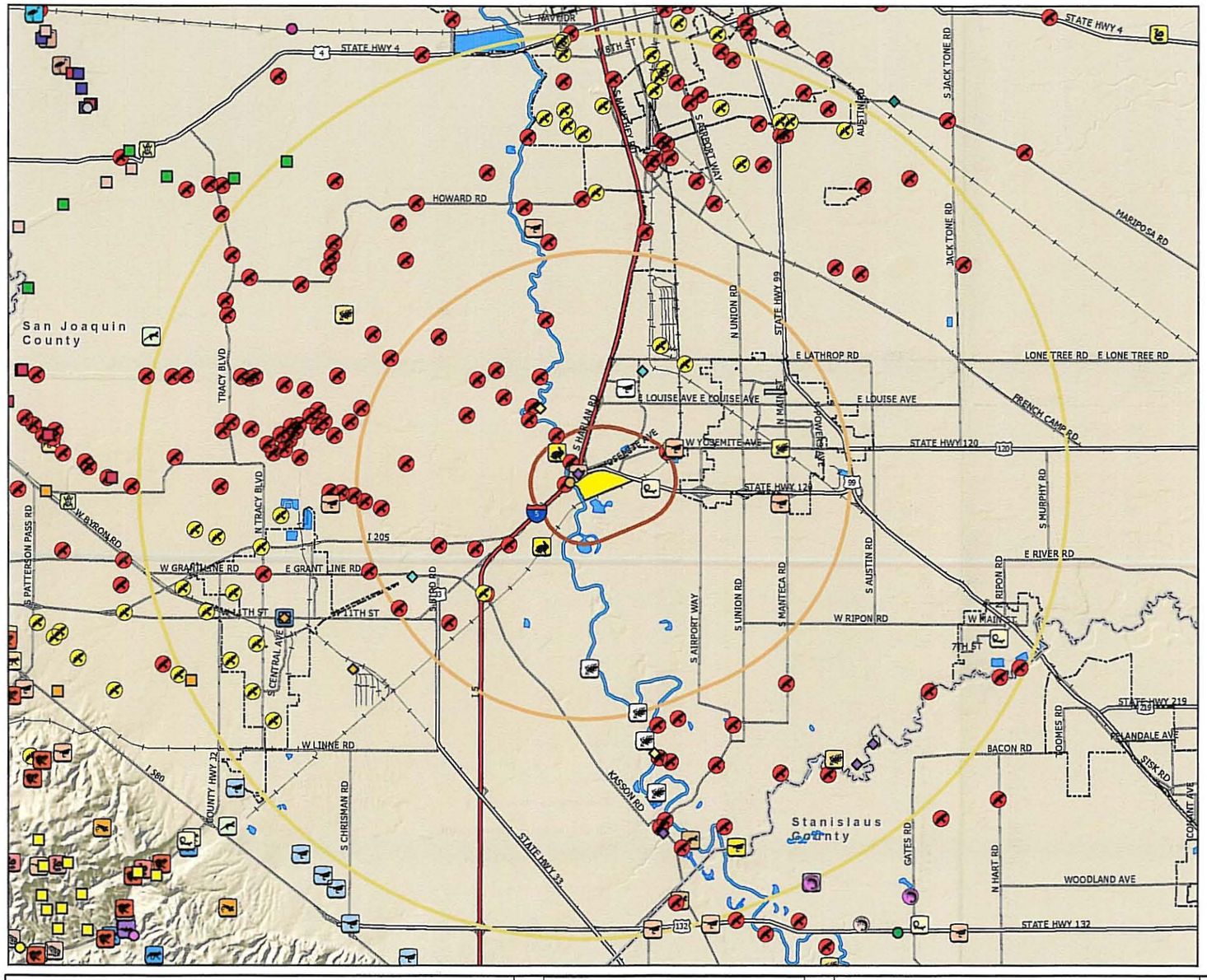
FIGURE 2. Natural Resources Conservation Service Soil Types

Table 1 - Potentially Occurring Special-Status Species

Common Name	Scientific Name	Federal Status	State Status	Other Status	Habitat Description	Approximate Survey
Plants						
Slough thistle	*Cirsium crassicaule*	-	-	1B	chenopod scrub, riparian scrub, marshes and swamps	May-August
Delta button celery	*Eryngium racemosum*	-	CE	1B	seasonally wet riparian	June-August
Wright's trichocoronis	*Trichocoronis wrightii* var. *wrightii*	-	-	2	alkaline (meadows, marsh, riparian, vernal pools)	May-September
Invertebrates						
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	-	-	elderberry shrubs	any season
Reptiles						
Giant garter snake	*Thamnophis gigas*	FT	CT	-	ditches, sloughs, marshes	April-October
Birds						
Double-crested cormorant (rookery)	*Phalacrocorax auritus*	-	-	CSC	open water, riparian	April-July
Great blue heron (rookery)	*Ardea herodias*	-	-	CNDDB	rookery sites (marsh, riparian)	February-July
Great egret (rookery)	*Ardea alba*	-	-	CNDDB	rookery sites (marsh, riparian)	March-July
Snowy egret (rookery)	*Egretta thula*	-	-	CNDDB	rookery sites (marsh, riparian)	March-July
Black-crowned night heron (rookery)	*Nycticorax nycticorax*	-	-	CNDDB	rookery sites (marsh, riparian)	February-July
White-tailed kite (nesting)	*Elanus leucurus*	-	-	CFP	woodland, grassland	March-June
Northern harrier (nesting)	*Circus cyaneus*	-	-	CSC	marsh, grassland	April-September
Cooper's hawk (nesting)	*Accipiter cooperii*	-	-	CSC	woodland	April-July
Swainson's hawk (nesting)	*Buteo swainsoni*	-	CT	BCC	grassland, riparian	March-August
Ferruginous hawk (wintering)	*Buteo regalis*	-	-	CNDDB	grassland	November-February
Golden eagle (wintering)	*Aquila chrysaetos*	-	-	BCC, CSC, CFP	grassland	October-February
Merlin (wintering)	*Falco columbarius*	-	-	CSC	woodland, grassland	September-April
Prairie falcon (wintering)	*Falco mexicanus*	-	-	BCC, CSC	grassland	October-February
Burrowing owl (burrow sites)	*Athene cunicularia*	-	-	BCC, CSC	grassland	March-August
Loggerhead shrike	*Lanius ludovicianus*	-	-	BCC, CSC	grassland, woodland	March-July
Tricolored blackbird (nesting colony)	*Agelaius tricolor*	-	-	BCC, CSC	marsh, grassland	April-June
Mammals						
Yuma myotis	*Myotis yumanensis*	-	-	CNDDB	riparian woodland, caves, mines, buildings, bridges, rock crevices, trees	April-September
Hoary bat	*Lasiurus cinerus*	-	-	CNDDB	dense foliage of medium to large trees	April-September
Western red bat	*Lasiurus blossevillii*	-	-	CNDDB	riparian woodlands, orchards	April-September
Pallid bat	*Antrozous pallidus*	-	-	CSC	mines, man-made structures, rock outcrops, and woodland near open grasslands for foraging	April-September
Riparian brush rabbit	*Sylvilagus bachmani riparius*	FE	CE	-	Riparian woodland	any season

Status Codes:

- FE - Federal ESA listed, Endangered.
- FT - Federal ESA listed, Threatened.
- FPE - Formally Proposed for federal ESA listing as Endangered.
- FPT - Formally Proposed for federal ESA listing as Threatened.
- FPD - Listed under Federal ESA, but formally proposed for delisting.
- Fd - Formally Delisted (delisted species are monitored for 5 years).
- FC - Candidate for federal ESA listing as Threatened or Endangered.
- BCC - U. S. Fish and Wildlife Service Bird of Conservation Concern (USFWS, 2002).
- CE - California ESA or Native Plant Protection Act listed, Endangered.
- CT - California ESA or Native Plant Protection Act listed, Threatened.
- CR - California ESA or Native Plant Protection Act listed, Rare.
- CC - Candidate for California ESA listing as Endangered or Threatened.
- CFP - Fish and Game Code of California Fully Protected Species (§3511-birds, §4700-mammals, §5050-reptiles/amphibians).
- CSC - California Department of Fish and Game Species of Special Concern (CDFG, updated August 2004).
- 1A - California Native Plant Society/Presumed extinct.
- 1B - California Native Plant Society/Rare or Endangered in California and elsewhere.
- 2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.
- 3 - California Native Plant Society/Plants about which we need more information
- 4 - California Native Plant Society/Plants of Limited Distribution.
- CNDDB - Species that is tracked by CDFG's Natural Diversity Database but does not have any of the above special-status designations otherwise.



Map Features

Administrative Boundaries

- City Boundary
- County Boundary
- [1] Project Boundary

Buffers

- 1 mile
- 5 mile
- 10 mile

Transportation Network

- Interstate
- State Highway
- Roads
- Railroads

Hydrologic Features

- Lakes and Reservoirs
- Rivers

[2] CNDDB Occurrences

Plants

- Wright's trichocoronis
- bristly sedge
- diamond-petaled California poppy
- lesser saltscale
- showy madia
- marsh skullcap
- recurved larkspur
- slough thistle
- Suisun Marsh aster
- round-leaved filaree
- Delta button-celery
- Delta mudwort
- Delta tule pea
- caper-fruited tropidocarpum
- Mason's lilaeopsis
- rose-mallow
- big tarplant

Reptiles / Amphibians

- giant garter snake
- San Joaquin whipsnake
- Coast (California) horned lizard
- California tiger salamander
- western pond turtle
- California red-legged frog
- western spadefoot

Invertebrates

- California linderiella
- Conservancy fairy shrimp
- vernal pool fairy shrimp
- moestan blister beetle
- valley elderberry longhorn beetle
- Sacramento anthicid beetle

Birds

- yellow-headed blackbird
- western yellow-billed cuckoo
- tricolored blackbird
- California horned lark
- cackling (=Aleutian Canada) goose
- great blue heron
- California black rail
- burrowing owl
- Swainson's hawk

Mammals

- western mastiff bat
- riparian (=San Joaquin Valley) woodrat
- San Joaquin pocket mouse
- riparian brush rabbit
- San Joaquin kit fox
- American badger

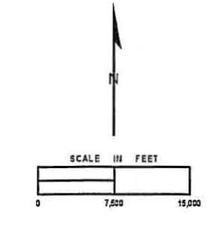
NOTES

[1] Project Boundary: ECORP Wetland Delineation

[2] CDFG California Natural Diversity Database (CNDDB), August 2006 Update (GIS Shapefile)

Map Projection: California State Plane Zone III (NAD83) feet

Map Extents Located on USGS 7.5' Quadrangles: Woodward Island, Holt, Stockton West, Stockton East, Peters, Union Island, Lathrop, Manteca, Avena, Clifton Court Forebay, Midway, Tracy, Vernalis, Ripon and Salida, CA



1 " equals 15,000 '

VICINITY MAP

FIGURE 3. CNDDB SPECIAL-STATUS SPECIES

2004-096 South Lathrop Village

Location: J:\GIS_Maps\2004-096_South_Lathrop_6A_6B\	Map Name: South Lathrop_6A&B_CNDDB mxd	Project Manager: BROWNS
Original Production Date: 08/17/06	Revision:	GIS Specalist: JDS
Printing Date: 09/07/06	Scale: 1 " equals 15,000 '	

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Delta button celery is listed and protected pursuant to the State Endangered Species Act. Slough thistle and Wright's trichocoronis are not listed or protected under either the State or federal Endangered Species Acts, but these species are listed by the CNPS and may be considered by the Lead Agency during the CEQA review process.

The seasonal wetlands on-site represent marginal habitat for dwarf downingia (*Downingia pusilla*, CNPS List 2), Boggs Lake hedge hyssop (*Gratiola heterosepala*, California endangered, CNPS List 1B), legenere (*Legenere limosa*, CNPS List 1B), pincushion navarretia (*Navarretia myersii* ssp. *myersii*, CNPS 1B), and slender orcutt grass (*Orcuttia tenuis*, federal threatened, California endangered, CNPS List 1B). The vegetative community within the seasonal wetlands suggests that these features receive supplemental irrigation throughout the year, which would diminish the potential for the occurrence of these vernal pool species.

Invertebrates

The site is located within the range of the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, federal threatened). This species is completely dependent on its host plant, elderberry (*Sambucus* species). Elderberry shrubs may occur on-site. A formal survey, conducted in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1996), would be required to ascertain the presence/absence of elderberry shrubs on-site and evidence of the beetles' use of the shrubs, if present. All elderberry shrubs located within the range of the Valley elderberry longhorn beetle that contain one or more stems measuring one inch or greater in diameter at ground level are considered suitable habitat for the species (USFWS 1996).

The seasonal wetlands in the irrigated pasture on-site are considered unsuitable habitat for vernal pool fairy shrimp (*Branchinecta lynchi*, federal threatened), midvalley fairy shrimp (*Branchinecta mesovallensis*, CNDDB), vernal pool tadpole shrimp (*Lepidurus packardi*, federal endangered), and California linderiella (*Linderiella occidentalis*, CNDDB). The vegetative community within the seasonal wetlands indicates that these features receive supplemental

irrigation throughout the year, which would render these features unsuitable as habitat for the above-listed species.

Reptiles

The riparian habitat adjacent to the San Joaquin River represents potentially-suitable upland habitat for giant garter snake (*Thamnophis gigas*, federal threatened, California threatened). Essential giant garter snake habitat components consist of 1) adequate water during early spring through mid fall to provide prey base and cover, 2) emergent wetland vegetation for escape cover and foraging habitat, 3) uplands for basking and retreat sites, and 4) higher elevation upland for cover and flood refugia. The USFWS considers areas within 200 feet of aquatic habitat to represent potential upland habitat. Additionally, the USFWS identifies various levels of impact to giant garter snake habitat, from temporary to permanent, and applies mitigation requirements accordingly. Mitigation required for any temporary or permanent impacts to suitable habitat (aquatic and adjacent uplands) on the property would ultimately be assessed by the USFWS. The nearest previously documented GGS occurrence is located greater than 10 miles to the northeast of the site (CDFG 2003). It is considered unlikely that this species would occur on-site; however, this species is addressed in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, which covers the site.

Birds

Plant communities within South Lathrop South Village may provide suitable habitat for a variety of potentially occurring special-status birds. Potential nesting habitat is present for colonial nesting water birds, special-status and common raptors, and special-status songbirds. Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants.

Colonial Nesting Water Birds

The California Department of Fish and Game's Natural Diversity Database keeps track of colonial nesting water bird rookery sites of double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), and black-crowned night heron (*Nycticorax nycticorax*), among others. As such, they are subject to analysis pursuant to CEQA. These species are not formally listed and protected pursuant to either State or federal Endangered Species Acts but are of stated interest to CDFG.

The riparian habitat adjacent to the San Joaquin River represents potentially suitable nesting habitat for these species, although rookeries of these species have not been previously reported in this area. In general, the nesting season for these colonial nesters is from March through July, but may vary depending on weather conditions or disturbances.

Nesting Raptors (Birds of Prey)

All raptors (owls, hawks, eagles, falcons), including common species, and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations.

The riparian habitat adjacent to the San Joaquin River and other trees throughout the site represent potentially suitable nesting habitat for a variety of special-status raptors. These are: white-tailed kite (*Elanus leucurus*, Fish and Game Code of California fully protected species), Cooper's hawk (*Accipiter cooperii*, CDFG species of special concern), and Swainson's hawk (*Buteo swainsoni*, California threatened). The pasture and ruderal grassland represent potentially suitable nesting habitat for the ground-nesting northern harrier (*Circus cyaneus*, CDFG species of special concern) and burrowing owl (*Athene cunicularia*, CDFG species of special concern, USFWS bird of conservation concern). The CNDDB currently contains nesting records for Swainson's hawk and burrowing owl within 1 mile of the site (CDFG 2003).

In general, raptor nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. In addition to the species described above, common raptors such as red-tailed hawk (*Buteo jamaicensis*) and great horned owl (*Bubo virginianus*), among others, may nest on-site.

Nesting Songbirds

Potentially suitable nesting habitat is present on-site for two regionally occurring special-status songbirds, loggerhead shrike (*Lanius ludovicianus*, CDFG species of special concern and USFWS bird of conservation concern) and tricolored blackbird (*Agelaius tricolor*, CDFG species of special concern and USFWS bird of conservation concern). Loggerhead shrikes nest in small trees and shrubs within oak woodland/savannah and grassland communities. Tricolored blackbirds nest in large colonies in patches of cattails, tule, or other dense vegetation near water.

Other Non-Nesting Birds

Other special-status birds that may occur on-site are not known to nest in this region, or suitable nesting habitat is not present on-site. These are: ferruginous hawk (*Buteo regalis*, CNDDB), golden eagle (*Aquila chrysaetos*, Fish and Game Code of California fully protected species, CDFG species of special concern, USFWS bird of conservation concern), merlin (*Falco columbarius*, CDFG species of special concern) and prairie falcon (*Falco mexicanus*, CDFG species of special concern, USFWS bird of conservation concern).

Mammals

The riparian habitat on-site may represent potential roosting habitat for four special-status bats. These are: Yuma myotis (*Myotis yumanensis*, CNDDB), hoary bat (*Lasiurus cinerus*, CNDDB), western red bat (*Lasiurus blossevillii*, CNDDB), and pallid bat (*Antrozous pallidus*, CDFG species of special concern). These species may roost in trees throughout the site. In addition, the San Joaquin River represents potential foraging habitat for these species. These species are not listed or protected pursuant the California or federal Endangered Species Act.

However, they are considered CDFG species of special concern and/or are tracked by the CNDDB.

The riparian habitat may represent suitable habitat for riparian brush rabbit (*Sylvilagus bachmani riparius*, federal endangered, California endangered). Riparian brush rabbits inhabit dense, brushy areas of valley riparian forests marked by extensive thickets of California wild rose (*Rosa californica*), California blackberries (*Rubus ursinus*), and willows. Historically, the riparian brush rabbit is believed to have inhabited riparian forests, woodlands, and brushlands along portions of the San Joaquin River and it tributaries in California's Central Valley, from Stanislaus County to the Sacramento-San Joaquin Delta (Orr 1935). The breeding season of the riparian brush rabbit occurs from December to May (Williams 1986).

CONCLUSION

The vegetation communities observed on-site represent potentially suitable habitat for several regionally occurring special-status species. Plants include slough thistle, Delta button celery, and Wright's trichocoronis. Valley elderberry longhorn beetle may occur in elderberry shrubs potentially present in riparian habitat on-site. Riparian habitat adjacent to the San Joaquin River may provide suitable upland habitat for giant garter snake. Potential nesting habitat is present for colonial nesting water birds (i.e., double-crested cormorant, great blue heron, great egret, snowy egret, and black-crowned night heron), special-status raptors (i.e., white-tailed kite, northern harrier, Cooper's hawk, Swainson's hawk, and burrowing owl), common raptors (e.g., red-tailed hawk and great-horned owl), and special-status songbirds (i.e., loggerhead shrike and tricolored blackbird). Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants. These are: ferruginous hawk, golden eagle, merlin, and prairie falcon. Special-status bats that may roost and forage on-site include Yuma myotis, hoary bat, western red bat, and pallid bat. Potentially suitable habitat for riparian brush rabbit may be present in the riparian corridor. Determinate surveys, conducted during the appropriate survey periods, would be required to evaluate the presence/absence of these species within this site.

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ATTACHMENT A

Rarefind 2 Data Report

Agelaius tricolor

tricolored blackbird — **Element Code:** ABPBXB0020

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G2G3	**CDFG Status:** SC
State: None	**State:** S2	

Habitat Associations

General: (NESTING COLONY) HIGHLY COLONIAL SPECIES, MOST NUMBEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, & FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Occurrence No. 95 **Map Index:** 11686 **EO Index:** 24732

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEHAVEN, R. (OBS)

Dates Last Seen
Element: 1971-05-05
Site: 1971-05-05
Record Last Updated: 1991-07-25

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79714° / -121.26327°
UTM: Zone-10 N4184728 E652905
Radius: 1/5 mile
Elevation: 20 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 01 **Qtr:** XX
Meridian: M

Location: 0.25 MI W OF HWY 120 AND SWANSON RD JCT, APPROX 2.5 MI W OF MANTECA.

Location Detail: NESTING (FLEDGLING STAGE) IN GIANT CANE; OBS BY DE HAVEN. COLONY SIZE APPROX 0.25 ACRE.

Ecological: NO WATER PRESENT.

Owner/Manager: UNKNOWN

Occurrence No. 96 **Map Index:** 11583 **EO Index:** 12696

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOSEA, R. 1986 (OBS)

Dates Last Seen
Element: 1972-05-26
Site: 1972-05-26
Record Last Updated: 1991-07-25

Quad Summary: LATHROP (3712173/462D), STOCKTON WEST (3712183/462A)
County Summary: SAN JOAQUIN

Lat/Long: 37.86964° / -121.32273°
UTM: Zone-10 N4192677 E647525
Radius: 1 mile
Elevation: 5 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 4 **Qtr:** XX
Meridian: M

Location: 0.75 MI SE OF JUNCT OF SAN JOAQUIN RIVER AND RD J-9.

Location Detail: COLONY OF APPROX 5000 OBS BY DE HAVEN NESTING IN CATTAIL/BULRUSH HABITAT; FLEDGLING STAGE OF NESTING. COLONY SIZE 0.75 ACRE.

Owner/Manager: UNKNOWN

Occurrence No. 99 **Map Index:** 11611 **EO Index:** 24729

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOSEA, R. 1986 (OBS)

Dates Last Seen
Element: 1974-06-05
Site: 1974-06-05
Record Last Updated: 1989-08-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334°
UTM: Zone-10 N4183692 E649395
Radius: 1 mile
Elevation: 15 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 3 **Qtr:** XX
Meridian: M

Location: ALONG HWY 120, 5 MI W OF MANTECA.

Location Detail: COLONY OF 25-50 OBS BY NEFF IN GIANT CANE IN MAY 1972; POST-FLEDGING. COLONY OF >500 OBS BY NEFF NESTING IN GIANT CANE IN JUNE 1974; POST-FLEDGING AND NEW CLUTCHES.

Owner/Manager: UNKNOWN

Ambystoma californiense

California tiger salamander — **Element Code:** AAAAA01180

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	**Global:** G2G3	**CDFG Status:** SC
State: None	**State:** S2S3	

Habitat Associations

General: CENTRAL VALLY DPS LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTY DPS LISTED AS ENDANGERED.

Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 37 **Map Index:** 11647 **EO Index:** 28418

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: TATARIAN, T. 1996 (OBS)

Dates Last Seen
Element: 1996-04-11
Site: 1996-04-11
Record Last Updated: 2001-03-13

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78368° / -121.27287°
UTM: Zone-10 N4183219 E652087
Radius: 1/10 mile
Elevation: 15 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 02 **Qtr:** SE
Meridian: M

Location: SOUTH SIDE OF HIGHWAY 120, NEAR THE JUNCTION OF MCKINLEY ROAD, SOUTH OF LATHROP

Location Detail: 1974 OBSERVATION WAS ON THE MATLEY PROPERTY 2785 BRONZAN ROAD, W MCKINLEY.

Ecological: HABITAT CONSISTS OF A SEASONAL POND CREATED BY THE BERM OF HIGHWAY 20. SITE IS SURROUNDED BY RESIDENTIAL DEVELOPMENT.

General: OBSERVED IN 1974 (S. MCGINNIS, PERSONAL COMMUNICATION). ~50 LARVAE OBSERVED ON 11 APR 1996.

Owner/Manager: PVT

Aster lentus

Suisun Marsh aster — Element Code: PDAST0T540

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 2-2-3

Habitat Associations

General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).

Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145 **Map Index:** 62567 **EO Index:** 62604

Dates Last Seen
Element: 1892-09-09
Site: 1892-09-09
Record Last Updated: 2005-09-13

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: MICHENER SN UC #71891 (HERB)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82249° / -121.27687°
UTM: Zone-10 N4187519 E651655
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 26 **Qtr:** XX
Meridian: M

Location: LATHROP.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.
Owner/Manager: UNKNOWN

Occurrence No. 146 **Map Index:** 62568 **EO Index:** 62605

Dates Last Seen
Element: 1920-09-30
Site: 1920-09-30
Record Last Updated: 2005-09-13

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: ABRAMS, L. #7788 UC #893616 (HERB)

Quad Summary: VERNALIS (3712163/444A), TRACY (3712164/444B), LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.75395° / -121.37281°
UTM: Zone-10 N4179762 E643343
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 05E
Section: 24 **Qtr:** XX
Meridian: M

Location: NEAR BANTA.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.
Owner/Manager: UNKNOWN

Athene cunicularia

burrowing owl — Element Code: ABNSB10010

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G4	CDFG Status: SC
State: None	State: S2	

Habitat Associations

General: (BURROW SITES) OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 251 Map Index: 36447 EO Index: 31444

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: CROWE, R. 1997 (OBS)

Dates Last Seen:
Element: 2000-01-21
Site: 2000-01-21
Record Last Updated: 2000-01-01

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79797° / -121.26440°
UTM: Zone-10 N4184818 E652804
Radius: 1/10 mile
Elevation: 25 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 36 Qtr: SW
Meridian: M

Location: NORTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF THE INTERSECTION OF YOSEMITE AVENUE AND MCKINLEY AVENUE, SE OF LATHROP

Location Detail: BURROW IS LOCATED IN A NEWLY-CREATED DETENTION BASIN NORTH OF THE SAN JOAQUIN RAIL STATION PARKING LOT.

Ecological: HABITAT SURROUNDING BURROW CONSISTS OF WINTER WHEAT TO THE WEST, A SMALL BAND OF ANNUAL GRASSLAND TO THE EAST, AND THE REMAINDER IS SCRAPED CLEAN.

Threat: THREATENED BY DEVELOPMENT.

General: 2 ADULTS AND 2 JUVENILES OBSERVED ON 24 JUL 1997. 1 ADULT OBSERVED ON 21 JAN 2000.

Owner/Manager: PVT

Occurrence No. 265 Map Index: 38438 EO Index: 33445

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: CROWE, R. 1997 (OBS)

Dates Last Seen:
Element: 1997-03-14
Site: 1997-03-14
Record Last Updated: 1998-03-23

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82534° / -121.25893°
UTM: Zone-10 N4187864 E653229
Radius: 80 meters
Elevation: 20 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 25 Qtr: NE
Meridian: M

Location: 0.3 MILES WSW OF INTERSECTION OF LATHROP RD & DURHAM FERRY RD. 0.75 MILES EAST OF LATHROP.

Ecological: HABITAT CONSISTS OF IRRIGATED PASTURE.

Threat: POSSIBLE THREAT FROM COMMERCIAL CONSTRUCTION.

General: ON 14 MARCH 1997, A PAIR OF OWLS WAS OBSERVED, POSSIBLY WITH EGGS.

Owner/Manager: UNKNOWN

Occurrence No. 342 Map Index: 42086 EO Index: 42086

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BARCLAY, J. 1999 (OBS)

Dates Last Seen:
Element: 2005-05-13
Site: 2005-05-13
Record Last Updated: 2006-05-25

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83121° / -121.26926°
UTM: Zone-10 N4188499 E652308
Area: 314.8 ac
Elevation: 20 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POLYGON
Township: 01S
Range: 06E
Section: 24 Qtr: NE
Meridian: M

Location: SHARPE DEPOT, LATHROP

Location Detail: BURROWS ARE LOCATED BETWEEN AN ABANDONED RUNWAY AND THE RAILROAD TRACKS. ARTIFICIAL BURROWS WERE INSTALLED IN 1999 TO MITIGATE THE LOSS OF HABITAT FROM CONSTRUCTION OF A LARGE BUILDING. 4 PAIRS UTILIZED ARTIFICIAL BURROWS IN 1999.

Ecological: HABITAT CONSISTS OF MOWED NON-NATIVE GRASSLAND VEGETATION, DOMINATED BY YELLOW STAR THISTLE AND BERMUDA GRASS; SURROUNDED BY A MILITARY SUPPLY/STORAGE AREA.

Threat: THREATENED BY PROLIFERATION OF YELLOW STAR THISTLE (EVEN THOUGH VEGETATION IS MOWED), CONSTRUCTION, AND PREDATION.

General: 8 PAIRS EST, 1997. 4 PAIRS & YOUNG, 1998. 7 PAIRS/JUVS. OBS IN 1999. 13 PAIRS/55 JUVS, 24 MAY-29 JUN 2001. 20 PAIRS/56 JUVS, MAY-JUN 2002. 19 PAIRS/41 JUVS, 15 JUN 2003. 43 ADS/57 JUVS, 22 JUN 2004. 37 ADS/60 JUVS, MAY-JUN 2005.

Owner/Manager: DOD-SHARPE DEPOT

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 17 **Map Index:** 11557 **EO Index:** 27288

Dates Last Seen
Element: 1979-08-03
Site: 1982-06-29
Record Last Updated: 1989-08-10

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH & GAME 1984 (PERS)

Quad Summary: VERNALIS (3712163/444A), LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.74880° / -121.34133°
UTM: Zone-10 N4179239 E646127
Radius: 1/5 mile
Elevation: 20 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 20 **Qtr:** NW
Meridian: M

Location: HWY I-5 & KASSON RD.

General: DFG SWHA #SJ007. TWO ADULTS OBSERVED, BUT NO NEST FOUND IN 1979; SITE INACTIVE IN 1982.

Owner/Manager: PVT

Occurrence No. 387 **Map Index:** 21219 **EO Index:** 9047

Dates Last Seen
Element: 1990-05-31
Site: 1990-05-31
Record Last Updated: 1993-06-14

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOLT, W. 1990 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82271° / -121.33793°
UTM: Zone-10 N4187445 E646281
Radius: 1/5 mile
Elevation: 10 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 20 **Qtr:** SW
Meridian: M

Location: ROBERTS ISLAND, SOUTH OF THE JUNCTION OF UNDINE ROAD AND ROBERTS ROAD, 3 MI WEST OF LATHROP.

Ecological: NEST TREE IS A VALLEY OAK WITHIN A GROUP OF LARGE VALLEY OAKS AROUND FARM BUILDINGS; SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: DFG SWHA #SJ057. ONE ADULT OBSERVED CARRYING A VOLE TO THE NEST, INDICATING THE PRESENCE OF NESTLING(S), ALTHOUGH NONE WERE VISIBLE. 2 YOUNG WERE EVENTUALLY FLEDGED IN 1990.

Owner/Manager: PVT

Occurrence No. 391 **Map Index:** 21509 **EO Index:** 17717

Dates Last Seen
Element: 1992-05-22
Site: 1992-05-22
Record Last Updated: 1992-06-02

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: SCHMOLDT, D. 1992 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78508° / -121.30863°
UTM: Zone-10 N4183316 E648935
Radius: 80 meters
Elevation: 15 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 3 **Qtr:** XX
Meridian: M

Location: JUST WEST OF THE MOSSDALE MARINA, ABOUT 200 FEET NORTH OF I-5, 5 MI WEST OF MANTECA.

Ecological: NEST TREE IS A LARGE VALLEY OAK IN A PRIVATE YARD; SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: BIRD(S) FIRST OBSERVED ON 20 MAY 1992 CARRYING PREY INTO NEST TREE; NEST DISCOVERED ON A RETURN VISIT ON 22 MAY 1992, WHEN ONE BIRD WAS OBSERVED ON THE NEST AND THE OTHER WAS SOARING ABOVE.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk — **Element Code:** ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G5	**CDFG Status:**
State: Threatened	**State:** S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 681 **Map Index:** 33403 **EO Index:** 22464

Dates Last Seen
Element: 2002-07-17
Site: 2002-07-17
Record Last Updated: 2006-05-11

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: LAWRENCE, M. 1996 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76337° / -121.34603°
UTM: Zone-10 N4180849 E645684
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 18 **Qtr:** XX
Meridian: M

Location: WEST SIDE OF BERRY AVENUE, 0.1 MILE SOUTH THE INTERSECTION WITH CANAL BOULEVARD, 5 MILES NORTH OF TRACY

Location Detail: THERE WERE 3 VALLEY OAKS IN A ROW; THE 1996 NEST TREE WAS THE CENTER ONE, WITH THE NEST LOCATED IN THE UPPER PORTION OF THE TREE. THE 2002 NEST TREE WAS WITHIN A FARMSTEAD TO THE SOUTH, ALONG BERRY AVENUE.

Ecological: NEST TREE IS A LARGE VALLEY OAK; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURAL FIELDS PLANTED IN ROW CROPS TO THE SE AND SW, FALLOW FIELDS TO THE NE, AND ROADWAY/COMMERCIAL TO THE NW.

General: NEST AND 2 ADULTS OBSERVED ON 26 MAR 1996. 2000: NEST CONTAINING 2 DOWNY YOUNG OBSERVED ON 9 JUN. 2002: NESTING SUSPECTED ON 20 APR; NEST WITH 1 FEATHERED CHICK OBSERVED ON 27 JUN; 2 JUV PERCHED IN NEST TREE ON 17 JUL.

Owner/Manager: UNKNOWN

Occurrence No. 697 **Map Index:** 38803 **EO Index:** 33810

Dates Last Seen
Element: 1998-04-14
Site: 1998-04-14
Record Last Updated: 1998-05-18

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: CROWE, R. 1998 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79613° / -121.26609°
UTM: Zone-10 N4184611 E652658
Radius: 1/10 mile
Elevation: 25 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 01 **Qtr:** NW
Meridian: M

Location: SOUTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF MCKINLEY AVENUE, SOUTH OF LATHROP.

Location Detail: NEST IS LOCATED IN A WIND BREAK BETWEEN AN AGRICULTRUAL FIELD AND HOUSES.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDED BY AGRICULTURAL FIELDS (ROW CROPS) AND ASSOCIATED RESIDENCES.

General: 2 ADULTS/NEST OBSERVED ON 14 APRIL 1998.

Owner/Manager: UNKNOWN

Occurrence No. 937 **Map Index:** 45622 **EO Index:** 45622

Dates Last Seen
Element: 2001-06-21
Site: 2001-06-21
Record Last Updated: 2002-03-12

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80628° / -121.32392°
UTM: Zone-10 N4185644 E647546
Radius: 80 meters
Elevation: 18 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 33 **Qtr:** XX
Meridian: M

Location: SAN JOAQUIN RIVER, AT THE HEAD OF OLD RIVER, SW OF LATHROP

Location Detail: 2000 NEST TREE WAS A COTTONWOOD, LOCATED ON THE NORTH BANK OF OLD RIVER, AT THE ELBOW. 2001 NEST TREE WAS A 35-FT TALL WILLOW.

Ecological: NEST TREE IS A 35-FT TALL WILLOW, WITHIN A GROUP OF 3 TREES; SURROUNDED BY SUBSTANTIAL ALFALFA FIELDS.

Threat: THREATENED BY HUMAN DISTURBANCE (BOATS, CARS, FARM MACHINERY) AND LIVESTOCK.

General: NEST WAS MONITORED THROUGH THE 2000 NESTING SEASON; 2 ADULTS AND 1 JUVENILE OBSERVED ON 14 JUN 2000. 2 ADULTS AND 2 YOUNG OBSERVED ON 21 JUN 2001; YOUNG WERE BANDED.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 944 **Map Index:** 45715 **EO Index:** 45715

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen
Element: 2001-05-16
Site: 2001-05-16
Record Last Updated: 2003-07-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81072° / -121.32260°
UTM: Zone-10 N4186139 E647654
Area: 11.3 ac
Elevation: 25 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 01S
Range: 06E
Section: 33 **Qtr:** XX
Meridian: M

Location: ALONG SAN JOAQUIN RIVER, 0.3 MILE DOWNSTREAM OF THE HEAD OF OLD RIVER, WEST OF LATHROP

Location Detail: 2000 NEST TREE WAS A 40-50' TALL BLACK WALNUT ON THE NORTH BANK. 2001 NEST TREE WAS A COTTONWOOD ON THE SOUTH BANK.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDED BY MATURE RIPARIAN FOREST AND AGRICULTURE (INCLUDING SUBSTANTIAL ALFALFA).

Threat: THREATENED BY RECREATIONAL USE OF THE AREA (BOATERS AND FISHERMEN).

General: 2 ADULTS OBSERVED NESTING DURING 2000, BUT THE NEST FAILED AND THE ADULTS ABANDONED; FEMALE OBSERVED ON THE NEST ON 8 MAY 2000, AND NEST WAS ACTIVE ON 7 JUL 2000. 2 ADULTS OBSERVED NESTING ON 16 MAY 2001, BUT THE NEST LATER FAILED.

Owner/Manager: UNKNOWN

Occurrence No. 997 **Map Index:** 47404 **EO Index:** 47404

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen
Element: 2001-05-16
Site: 2001-05-16
Record Last Updated: 2002-03-12

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81945° / -121.34580°
UTM: Zone-10 N4187072 E645594
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 30 **Qtr:** XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, DOWNSTREAM OF THE HEAD OF OLD RIVER, SOUTH OF STOCKTON

Location Detail: NEST TREE IS LOCATED ON THE LAND SIDE OF THE LEVEE.

Ecological: NEST TREE IS A LARGE OAK, WITHIN A CLUSTER OF OAKS, WILLOWS, AND COTTONWOODS; SURROUNDED BY AGRICULTURAL FIELDS.

Threat: POSSIBLE THREAT OF DISTURBANCE FROM HUMAN RECREATIONAL USE OF AREA (BOATING, FISHING, ETC).

General: PAIR OBSERVED NESTING ON 19 APR 2000. PAIR OBSERVED NESTING ON 16 MAY 2001; FEMALE ON NEST.

Owner/Manager: UNKNOWN

Occurrence No. 1109 **Map Index:** 50998 **EO Index:** 50998

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 1999 (OBS)

Dates Last Seen
Element: 1999-07-06
Site: 1999-07-06
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.79152° / -121.37565°
UTM: Zone-10 N4183926 E643021
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 05E
Section: 01 **Qtr:** XX
Meridian: M

Location: WEST SIDE OF PARADISE ROAD, 0.3 MILE SOUTH OF DELTA AVENUE, NE OF TRACY

Ecological: NEST TREE IS A LONE COTTONWOOD NEXT TO SOME HOUSES; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.

General: NEST SITE ACTIVE IN 1997 AND 1998. 2 ADULTS AND 2 JUVENILES OBSERVED AT THE NEST SITE ON 6 JUL 1999.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1110 **Map Index:** 51000 **EO Index:** 51000

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen
Element: 2000-04-19
Site: 2000-04-19
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81382° / -121.33465°
UTM: Zone-10 N4186464 E646587
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 29 **Qtr:** XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, 0.75 MILE UPSTREAM FROM THE SAN JOAQUIN RIVER CONFLUENCE, NORTH OF TRACY

Ecological: NEST TREE IS AN OAK WITHIN REMNANT RIPARIAN ON A DISTURBED LEVEE SLOPE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE.

General: NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 19 APR 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1111 **Map Index:** 51001 **EO Index:** 51001

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen
Element: 2000-05-03
Site: 2000-05-03
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82062° / -121.31955°
UTM: Zone-10 N4187243 E647903
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 28 **Qtr:** XX
Meridian: M

Location: EAST SIDE OF SAN JOAQUIN RIVER, 0.25 MILE EAST OF THE SOUTH END OF UNDINE ROAD, NE OF TRACY

Ecological: NEST TREE IS A LARGE OAK WITHIN WITHIN A LINE OF OAKS, JUST OFF THE LEVEE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE (MAINLY ROW CROPS AND ALFALFA).

General: NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 3 MAY 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1112 **Map Index:** 51002 **EO Index:** 51002

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen
Element: 2001-04-16
Site: 2001-04-16
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80762° / -121.35015°
UTM: Zone-10 N4186752 E645234
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 31 **Qtr:** XX
Meridian: M

Location: STEWART ROAD, 0.4 MILE EAST OF PARADISE ROAD, NE OF TRACY

Ecological: NEST TREE IS ONE OF TWO ROADSIDE OAKS; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.

General: 2 ADULTS OBSERVED DURING NEST-BUILDING ON 16 APR 2001.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS

Occurrence No. 1113 Map Index: 51003 EO Index: 51003

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen
Element: 2001-04-27
Site: 2001-04-27
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.86532° / -121.31645°
UTM: Zone-10 N4192207 E648086
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 09 Qtr: XX
Meridian: M

Location: NORTH SIDE OF BOWMAN ROAD, 0.4 MILE EAST OF BOWMAN BRIDGE OVER THE SAN JOAQUIN RIVER, SOUTH OF STOCKTON

Ecological: NEST TREE IS SURROUNDED BY RURAL AGRICULTURE WITH A FEW HOUSES, BUT GOOD FORAGE CROPS.

Threat: THREATENED BY URBAN ENCROACHMENT.

General: 2 ADULTS OBSERVED NESTING ON 27 APR 2001.

Owner/Manager: UNKNOWN

Occurrence No. 1114 Map Index: 51005 EO Index: 51005

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen
Element: 2001-05-12
Site: 2001-05-12
Record Last Updated: 2003-04-17

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83343° / -121.36235°
UTM: Zone-10 N4188597 E644110
Radius: 80 meters
Elevation:
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 19 Qtr: XX
Meridian: M

Location: SOUTH SIDE OF UNDINE ROAD, 1.3 MILES WEST OF ROBERTS ROAD, NW OF TRACY

Location Detail: NEST TREE LOCATED NEXT TO A FARM HOUSE.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDING FORAGING HABITAT CONSISTS OF VINEYARDS, ORCHARDS, AND SOME GOOD FORAGE CROPS.

General: ACTIVE NEST IN 2000. 2 ADULTS OBSERVED NESTING ON 12 MAY 2001.

Owner/Manager: UNKNOWN

Occurrence No. 1190 Map Index: 51170 EO Index: 51170

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen
Element: 2000-06-15
Site: 2000-06-15
Record Last Updated: 2003-04-30

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83943° / -121.31726°
UTM: Zone-10 N4189334 E648066
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 21 Qtr: NE
Meridian: M

Location: SAN JOAQUIN RIVER, AT RIVER MILE 50(L), 5 MILES NW OF MANTECA

Ecological: NEST TREE IS A 70' TALL COTTONWOOD

General: ADULT(S) OBSERVED AT THE NEST ON 15 JUN 2000.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1198 **Map Index:** 51190 **EO Index:** 51190

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen
Element: 2000-06-20
Site: 2000-06-20
Record Last Updated: 2003-05-01

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.85878° / -121.37668°
UTM: Zone-10 N4191388 E642800
Radius: 80 meters
Elevation: 5 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 05E
Section: 12 **Qtr:** XX
Meridian: M

Location: WEST SIDE OF MIDDLE RIVER, 1.3 MILES SSE OF THE INTERSECTION OF HOWARD ROAD AND WING LEVEE ROAD, 7 MILES NORTH OF TRACY

Ecological: NEST TREE IS A 30' TALL VALLEY OAK; SURROUNDED BY RIPARIAN TO THE SE AND SW, AND BY ROW CROPS TO THE NE AND NW.

General: ADULTS OBSERVED FEEDING 2 PARTIALLY-FEATHERED YOUNG IN THE NEST ON 20 JUN 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1221 **Map Index:** 51733 **EO Index:** 51733

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen
Element: 2000-07-07
Site: 2000-07-07
Record Last Updated: 2003-07-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80121° / -121.31241°
UTM: Zone-10 N4185100 E648570
Radius: 80 meters
Elevation: 15 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 33 **Qtr:** XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, 1.2 MILES SW OF THE INTERSECTION OF LOUISE AVENUE AND I-5, SW OF LATHROP.

Ecological: NEST TREE IS A 25' WILLOW, SURROUNDED BY CROPLAND IN ALL DIRECTIONS.

General: NEST WITH 2 FEATHERED YOUNG OBSERVED ON 7 JUL 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1587 **Map Index:** 63290 **EO Index:** 63382

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen
Element: 2002-07-18
Site: 2002-07-18
Record Last Updated: 2005-12-01

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.86883° / -121.27610°
UTM: Zone-10 N4192662 E651627
Radius: 80 meters
Elevation: 22 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 11 **Qtr:** NE
Meridian: M

Location: BETWEEN SOUTH HARLAN ROAD AND SOUTH MCKINLEY ROAD, 1 MILE SOUTH OF FRENCH CAMP, SW OF STOCKTON AIRPORT

Location Detail: NEST TREE LOCATED NEXT TO HOUSE, ON THE WEST SIDE OF THE RAILROAD TRACKS AND EAST OF I-5.

Ecological: NEST TREE WAS A LARGE WILLOW; SURROUNDED BY GRASSLANDS TO THE NE AND SW, RESIDENTIAL/URBAN TO THE SE, AND COMMERCIAL/HIGHWAY TO THE NW.

General: NEST AND COPULATING ADULTS OBSERVED ON 19 APR; 1 ADULT IN NEST ON 24 MAY, BUT NO YOUNG VISIBLE; 2 CHICKS OBSERVED IN THE NEST ON 9 JUN; 2 JUVENILES AND 1 ADULT OBSERVED ON 18 JUL 2002.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1607 **Map Index:** 63869 **EO Index:** 63964

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen
Element: 2002-06-10
Site: 2002-06-10
Record Last Updated: 2006-02-02

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76484° / -121.33187°
UTM: Zone-10 N4181034 E646928
Radius: 80 meters
Elevation: 15 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 17 **Qtr:** XX
Meridian: M

Location: NORTH SIDE OF TOM PAINE SLOUGH, JUST SOUTH OF THE JUNCTION OF I-5 AND I-205, SW OF MANTECA.

Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY GRASSLAND TO THE NE, SE, AND SW, AND ROW CROPS TO THE NW.

General: 1 ADULT OBSERVED AT THE NEST ON 30 MAY; 1 DOWNY CHICK OBSERVED IN THE NEST WITH 1 ADULT AT THE NEST EDGE ON 10 JUN 2002.

Owner/Manager: UNKNOWN

Occurrence No. 1608 **Map Index:** 63875 **EO Index:** 63970

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen
Element: 2002-07-07
Site: 2002-07-07
Record Last Updated: 2006-02-02

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79234° / -121.30619°
UTM: Zone-10 N4184127 E649135
Radius: 80 meters
Elevation: 17 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 03 **Qtr:** XX
Meridian: M

Location: EAST SIDE OF THE SAN JOAQUIN RIVER, 0.4 MILE NORTH OF THE I-5 CROSSING OF THE SAN JOAQUIN RIVER, 4 MILES WEST OF MANTECA

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY GRASSLAND TO THE SW, RIPARIAN TO THE NW, AND FALLOW/RUDERAL TO THE NE AND SE.

General: ACTIVE NEST OBSERVED ON 30 MAY; 2 PARTIALLY-FEATHERED CHICKS OBSERVED IN THE NEST ON 10 JUN; ONLY 1 JUVENILE REMAINED IN THE NEST BY 7 JUL 2002.

Owner/Manager: UNKNOWN

Occurrence No. 1623 **Map Index:** 64668 **EO Index:** 64747

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen
Element: 2002-06-23
Site: 2002-07-17
Record Last Updated: 2006-05-11

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76445° / -121.36142°
UTM: Zone-10 N4180945 E644326
Radius: 80 meters
Elevation: 32 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 18 **Qtr:** NW
Meridian: M

Location: SOUTH SIDE OF I-205, 0.1 MILE WEST OF WHERE CALIFORNIA AVENUE CROSSES I-205, 3 MILES NE OF TRACY.

Ecological: NEST TREE WAS A EUCALYPTUS; SURROUNDED BY FALLOW FIELDS TO THE NE, ROW CROPS TO THE SE AND SW, AND ROADWAYS/COMMERCIAL TO THE NW.

General: ADULTS OBSERVED SOARING AND LANDING ON 20 APR; 2 DOWNY HEADS VISIBLE IN NEST ON 3 JUN; 1 ADULT AND 1 JUVENILE OBSERVED AT NEST ON 27 JUN; NO HAWKS PRESENT ON 17 JUL 2002.

Owner/Manager: UNKNOWN

Cirsium crassicaule

slough thistle

Element Code: PDAST2E0U0

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G2	**CNPS List:** 1B
State: None	**State:** S2.2	**R-E-D Code:** 3-3-3

Habitat Associations

General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M.

Occurrence No. 2 **Map Index:** 24860 **EO Index:** 6754

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown
Main Source: HOWELL, J. #11447 RSA (HERB)

Dates Last Seen
Element: 1933-07-20
Site: 1974-07-18
Record Last Updated: 1996-09-30

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81005° / -121.31942°
UTM: Zone-10 N4186070 E647935
Radius: 1 mile
Elevation: 10 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 33 **Qtr:** XX
Meridian: M

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.

Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.

Ecological: IN SHALLOW WATER OF CANAL.

Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS.

General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.

Owner/Manager: UNKNOWN

Eryngium racemosum

Delta button-celery — Element Code: PDAPI0Z0S0

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G2Q	CNPS List: 1B
State: Endangered	State: S2.1	R-E-D Code: 2-3-3

Habitat Associations

General: RIPARIAN SCRUB

Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 3-75M.

Occurrence No. 3 **Map Index:** 11611 **EO Index:** 20069

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown
Main Source: ALLEN, P. 1974 (PERS)

Dates Last Seen
Element: XXXX-XX-XX
Site: 1984-08-28
Record Last Updated: 1997-03-18

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334°
UTM: Zone-10 N4183692 E649395
Radius: 1 mile
Elevation: 15 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 3 **Qtr:** XX
Meridian: M

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MI S OF LATHROP.

Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.

General: HABITAT GONE IN 1984.

Owner/Manager: PVT

Sylvilagus bachmani riparius

riparian brush rabbit — Element Code: AMAEB01021

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	Global: G5T1	CDFG Status:
State: Endangered	State: S1	

Habitat Associations

General: RIPARIAN AREAS ON THE SAN JOAQUIN RIVER IN NORTHERN STANISLAUS COUNTY.

Micro: DENSE THICKETS OF WILD ROSE, WILLOWS, AND BLACKBERRIES.

Occurrence No. 3 **Map Index:** 52111 **EO Index:** 52111

Dates Last Seen
Element: 2003-02-03
Site: 2003-02-03

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Record Last Updated: 2003-08-13
Main Source: LLOYD, M, C. LEE, AND G. MONK 2003 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79532° / -121.31217°
UTM: Zone-10 N4184448 E648602
Area: 36.3 ac
Elevation: 9 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 02S
Range: 06E
Section: 04 **Qtr:** NE
Meridian: M

Location: OXBOW ON THE EAST SIDE OF THE SAN JOAQUIN RIVER, AT RIVER MILE 55, 2 MILES SW OF LATHROP

Location Detail: SITE ABUTS A PROPOSED DEVELOPMENT SITE (MOSSDALE LANDING).

Ecological: HABITAT CONSISTS OF COTTONWOOD RIPARIAN FOREST, DOMINATED BY FREMONT COTTONWOOD, WITH AN UNDERSTORY OF BLACKBERRY, WILD ROSE, STINGING NETTLE, BLESSED MILKTHIRSTLE, AND NON-NATIVE ANNUAL GRASSES. NON-NATIVE RATTUS RATTUS CAPTURED IN TRAPS.

Threat: EVIDENCE OF 6+ HOMELESS CAMPS, PAST WILDFIRES & AN UNAUTHORIZED GARDEN. CRISS-CROSSED WITH ROADS THAT ARE USED BY ORVS.

General: 2 CAPTURED EVENING OF 2 FEB 2003 AND 13 ADULTS CAPTURED MORNING OF 3 FEB 2003.

Owner/Manager: UNKNOWN

Occurrence No. 4 **Map Index:** 57409 **EO Index:** 57425

Dates Last Seen
Element: 2001-XX-XX
Site: 2001-XX-XX

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Record Last Updated: 2004-10-14
Main Source: WINTERS, G. AND M. LEJA 2003 (PERS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76414° / -121.31826°
UTM: Zone-10 N4180978 E648128
Area: 103.8 ac
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 02S
Range: 06E
Section: 16 **Qtr:** XX
Meridian: M

Location: PARIDISE CUT, BORDERED TO THE NORTHWEST BY I-205 AND ABOUT 1.3 MI SOUTHWEST OF MOSSDALE AND 2.8 MILES NORTHEAST OF BANTA

Location Detail: INDIVIDUALS PRIMARLY CAUGHT IN AREA IMMEDIATELY WEST OF UNION PACIFIC RAILROAD TRACTS WEST OF INTERSTATE 5

Ecological: SUITABLE HABITAT IS PRESENT IN SOME CHANNELS AND ADJOINING SLOUGH THAT FLOODS DURING PERIODS OF HIGH WATER FLOW. THERE ARE APPROXIMATELY 135 ACRES OF POTENTIAL RIPARIAN BRUSH HABITAT AT THE SITE, MOSTLY NEAR PROPOSED I-205 WIDENING PROJECT

Threat: PROPOSED INTERSTATE-205 WIDENING PROJECT.

General: 21 INDIVIDUALS CAUGHT IN 2001.

Owner/Manager: UNKNOWN

Trichocoronis wrightii var. wrightii

Wright's trichocoronis — Element Code: PDAST9F031

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G4T3	CNPS List: 2
State: None	State: S1.1	R-E-D Code: 3-3-1

Habitat Associations

General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.

Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435M.

Occurrence No. 6 **Map Index:** 24681 **EO Index:** 6904

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRANDEGEE, K. SN POM #58643 (HERB)

Dates Last Seen
Element: 1914-09-27
Site: 1914-09-27
Record Last Updated: 1993-11-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78548° / -121.30651°
UTM: Zone-10 N4183364 E649121
Radius: 2/5 mile
Elevation: 20 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 3 **Qtr:** XX
Meridian: M

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.

General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN

Xanthocephalus xanthocephalus

yellow-headed blackbird — Element Code: ABPBXB3010

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: None	State: S3S4	

Habitat Associations

General: (NESTING) NESTS IN FRESHWATER EMERGENT WETLANDS W/DENSE VEGETATION & DEEP WATER. OFTEN ALONG BORDERS OF LAKES OR PONDS.

Micro: NESTS ONLY WHERE LARGE INSECTS SUCH AS ODONATA ARE ABUNDANT. NESTING TIMED WITH MAXIMUM EMERGENCE OF AQUATIC INSECTS.

Occurrence No. 5 Map Index: 53639 EO Index: 53639

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: MVZ 2003 (MUS)

Dates Last Seen
Element: 1894-05-10
Site: 1894-05-10
Record Last Updated: 2003-12-18

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81681° / -121.28368°
UTM: Zone-10 N4186878 E651057
Radius: 1 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 06E
Section: 26 Qtr: XX
Meridian: M

Location: LATHROP

General: MVZ EGG SET #6846 COLLECTED 10 MAY 1894 BY A. WOLFE.

Owner/Manager: UNKNOWN

Special-Status Plant Survey

For

South Lathrop 6A and 6B

San Joaquin County, California

29 August 2008

Prepared For:
Richland Planned Communities, Inc.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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INTRODUCTION

At the request of Richland Planned Communities, Inc., ECORP Consulting, Inc. (ECORP) conducted a special-status plant survey for the approximately 277±-acre South Lathrop 6A and 6B site in San Joaquin County, California. The purpose of this survey was to identify and map the locations of special-status plant species observed within the site.

For the purposes of this report, "special-status species" refers to those plant species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;
- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Are listed on the Review List and Watch List by CNPS (Lists 3 and 4); or
- Are listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.).

Site Location

The South Lathrop 6A and 6B site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47′ 10″ North and 121° 17′ 40″ West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

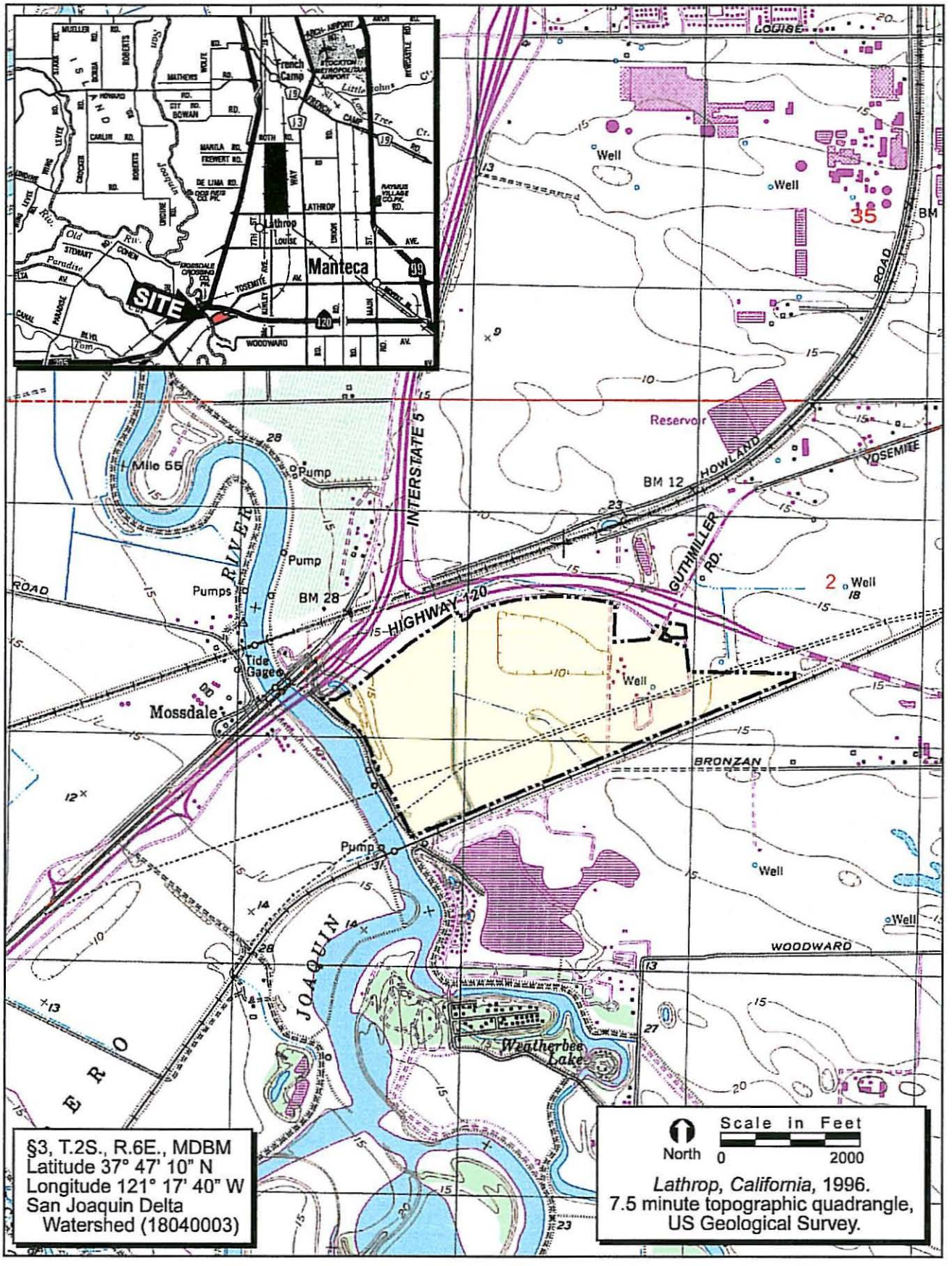

FIGURE 1. Project Site and Vicinity

2007-213 South Lathrop 6a & 6b

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Existing Site Conditions

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. Several buildings are present on-site, including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. A detention basin present to the north of the commercial facilities collects stormwater runoff from adjacent parking lots. The western border of the site is the San Joaquin River. The riverbank has been stabilized by rock riprap, and a disturbed riparian community has become established in the riprap.

The irrigated pasture is dominated by rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), deergrass (*Muhlenbergia rigens*), plantain (*Plantago major*), birdsfoot trefoil (*Lotus corniculatus*), annual bluegrass (*Poa annua*), knotweed (*Polygonum arenastrum*), common frog-fruit (*Phyla nodiflora*), pennyroyal (*Marrubium vulgare*), and Kentucky fescue (*Festuca arundinacea*).

The riparian community along the western boundary of the site, adjacent to the San Joaquin River, is dominated by Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), Goodding's willow (*Salix gooddingii*), sandbar willow (*S. exigua*), and arroyo willow (*S. lasiolepis*), Himalaya blackberry (*Rubus armeniacus*), Oregon ash (*Fraxinus latifolia*), California rose (*Rosa californica*), evening primrose (*Oenothera biennis*), Douglas' mugwort (*Artemisia douglasiana*), California tule pea (*Lathyrus jepsonii* var. *californicus*), water sedge (*Carex aquatilis* var. *dives*), white sweet clover (*Melilotus alba*), buttonbush (*Cephalanthus occidentalis*), soft rush (*Juncus effusus*), bristly foxtail (*Setaria gracilis*), South American vervain (*Verbena bonariensis*), annual rabbits-foot grass (*Polypogon monspeliensis*), and tall flatsedge (*Cyperus eragrostis*).

The eastern portion of the project site is occupied by annual grassland. The annual grassland community is dominated by yellow-star thistle (*Centaurea solstitialis*), telegraph weed

(*Heterotheca grandiflora*), common mallow (*Malva neglecta*), common tarweed (*Hemizonia pungens*), spreading alkali weed (*Cressa truxillensis*), alkali-mallow (*Malvella leprosa*), sacred thornapple (*Datura wrightii*), dodder (*Cuscuta* species), purple sandspurry (*Spergularia rubra*), saltgrass (*Distichlis spicata*), and Mediterranean barley (*Hordeum marinum*).

A wetland delineation was conducted on-site in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Potential waters of the U.S. mapped on-site include wetlands and other waters (Figure 2. *Wetland Delineation*) (ECORP 2005). Wetlands consist of seasonal wetlands and seasonal wetland swales. Other waters include a stock pond.

The seasonal wetlands and seasonal wetland swales are located within the irrigated pasture, and the vegetation within these features is not significantly different from that of the surrounding pasture.

The stock pond is primarily unvegetated, but species observed on the banks of the stock pond include cursed buttercup (*Ranunculus sceleratus*), water primrose (*Ludwigia peploides* var. *peploides*), annual bluegrass, and Fremont cottonwood (Populus fremontii).

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992a), seven soil units, or types, have been mapped within the project site (Figure 3. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992b).

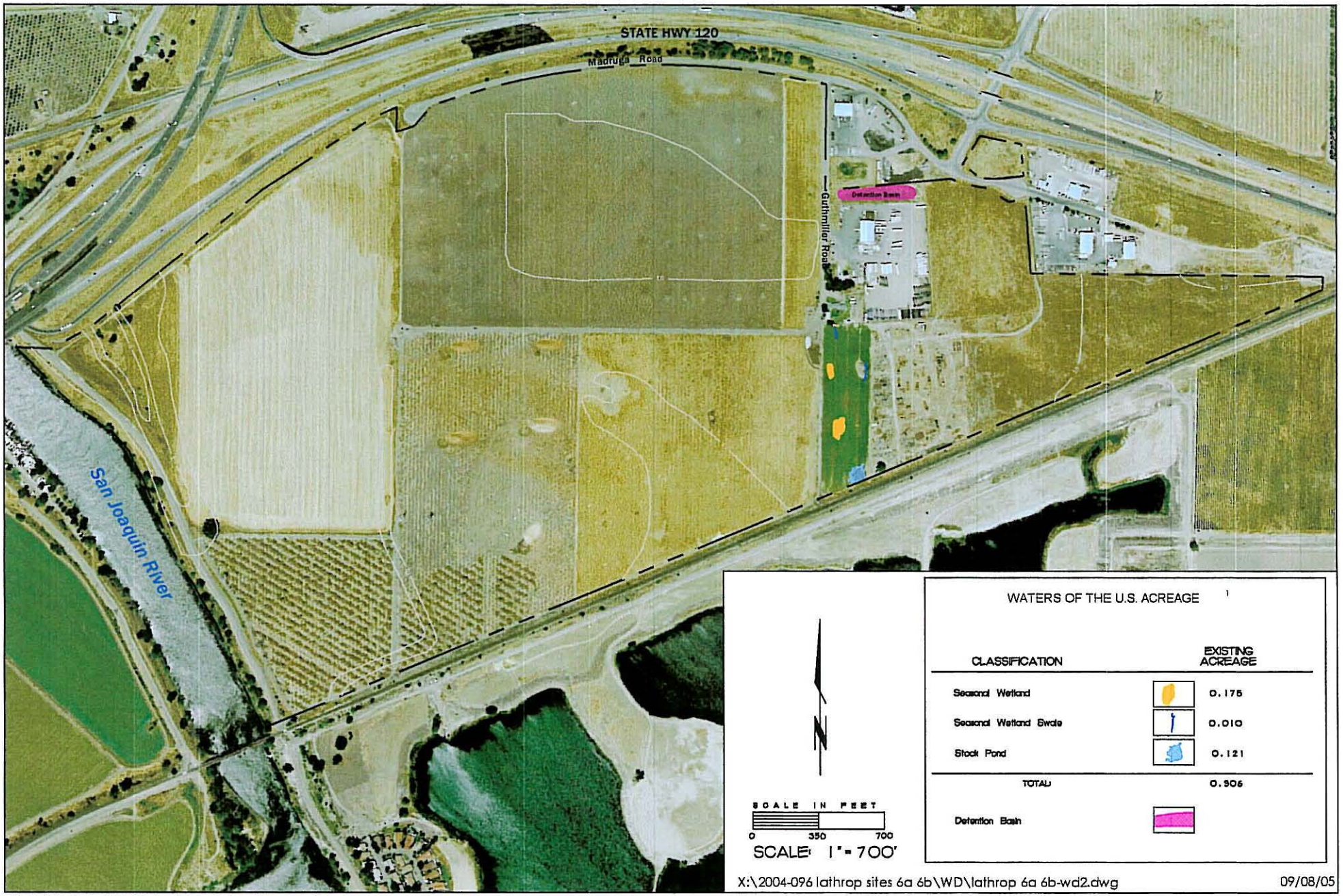

FIGURE 2. Wetland Delineation

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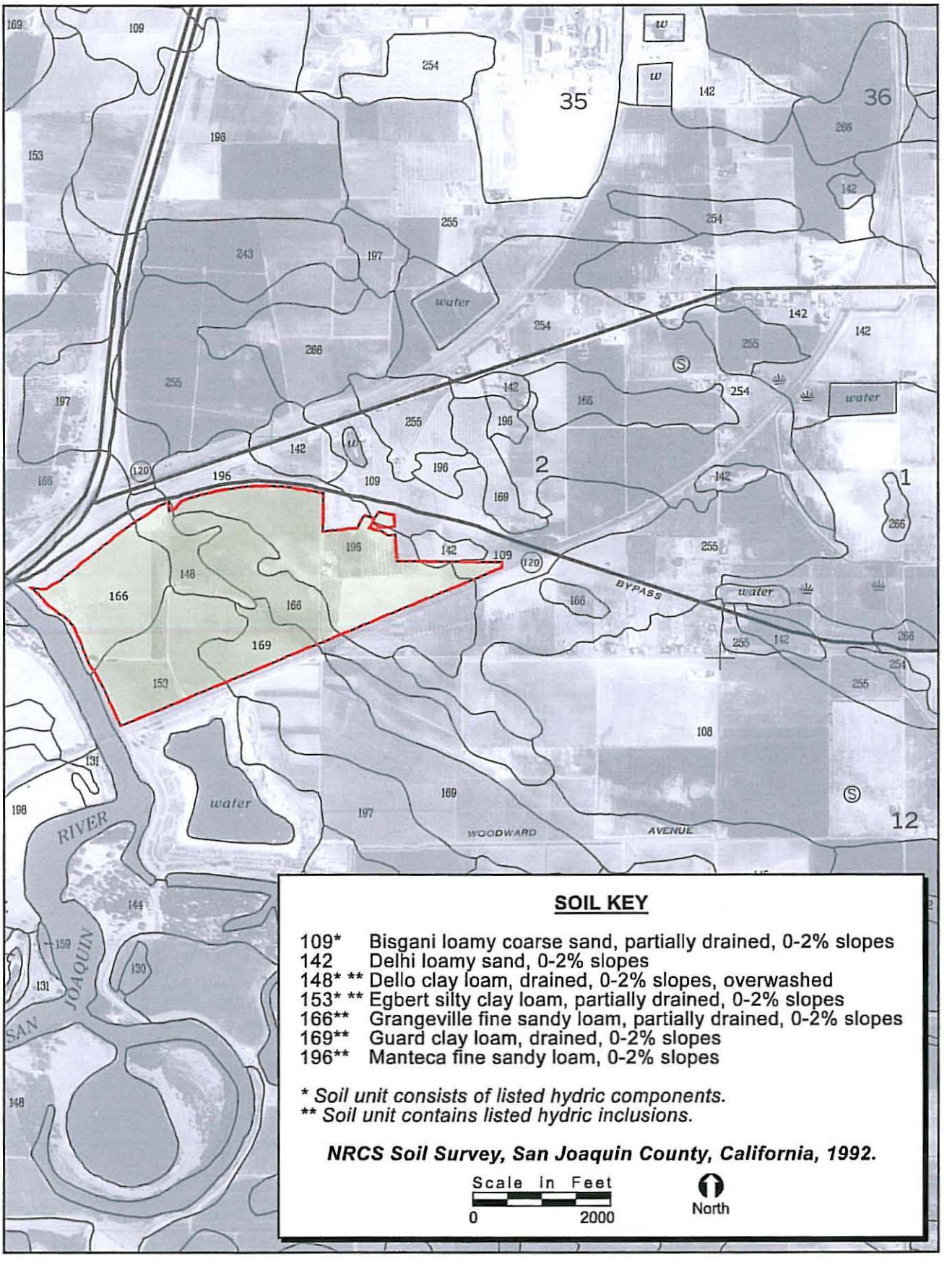


FIGURE 3. Natural Resources Conservation Service Soil Types

METHODS

The special-status plant survey included a review of resource agency species lists, literature review, on-line database query, voucher specimen and reference population review, and field surveys. Background information was collected on the potential existence of the special-status plants within or near the site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CDFG 2003);
- California Native Plant Society's Inventory of Rare and Endangered Plants record search for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles (CNPS 2008);
- Species List for the "Lathrop, California" 7.5-minute quadrangle and the eight surrounding quadrangles created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2008);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2001);
- *Soil Survey of Sa Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992a);
- *Wetland Delineation for South Lathrop* (ECORP 2005); and
- *Special-Status Species Assessment for South Lathrop South Village* (ECORP 2006).

Field surveys were conducted in accordance with guidelines promulgated by U.S. Fish and Wildlife Service (USFWS 2000), California Department of Fish and Game (CDFG 1983), and California Native Plant Society (CNPS 2001). The determinate-level field surveys were conducted on 7 May and 19 June 2008, which coincided with the optimum blooming period for each of the potentially occurring special-status plants. ECORP botanists Daria Snider and Keith Kwan walked meandering transects throughout the site to ensure complete coverage of all suitable habitat, including all aquatic features on-site. A list of field personnel qualifications is included as Attachment A.

Reference populations for the target species were visited throughout the floristic season to assess bloom phenology and to observe species morphology. When reference populations were not available, mounted herbarium specimens were observed at the U.C. Davis Herbarium. Attachment B identifies the reference source for each of the target species including the location of the population, dates of visits, and phenological stage of the species at the time of the field visits.

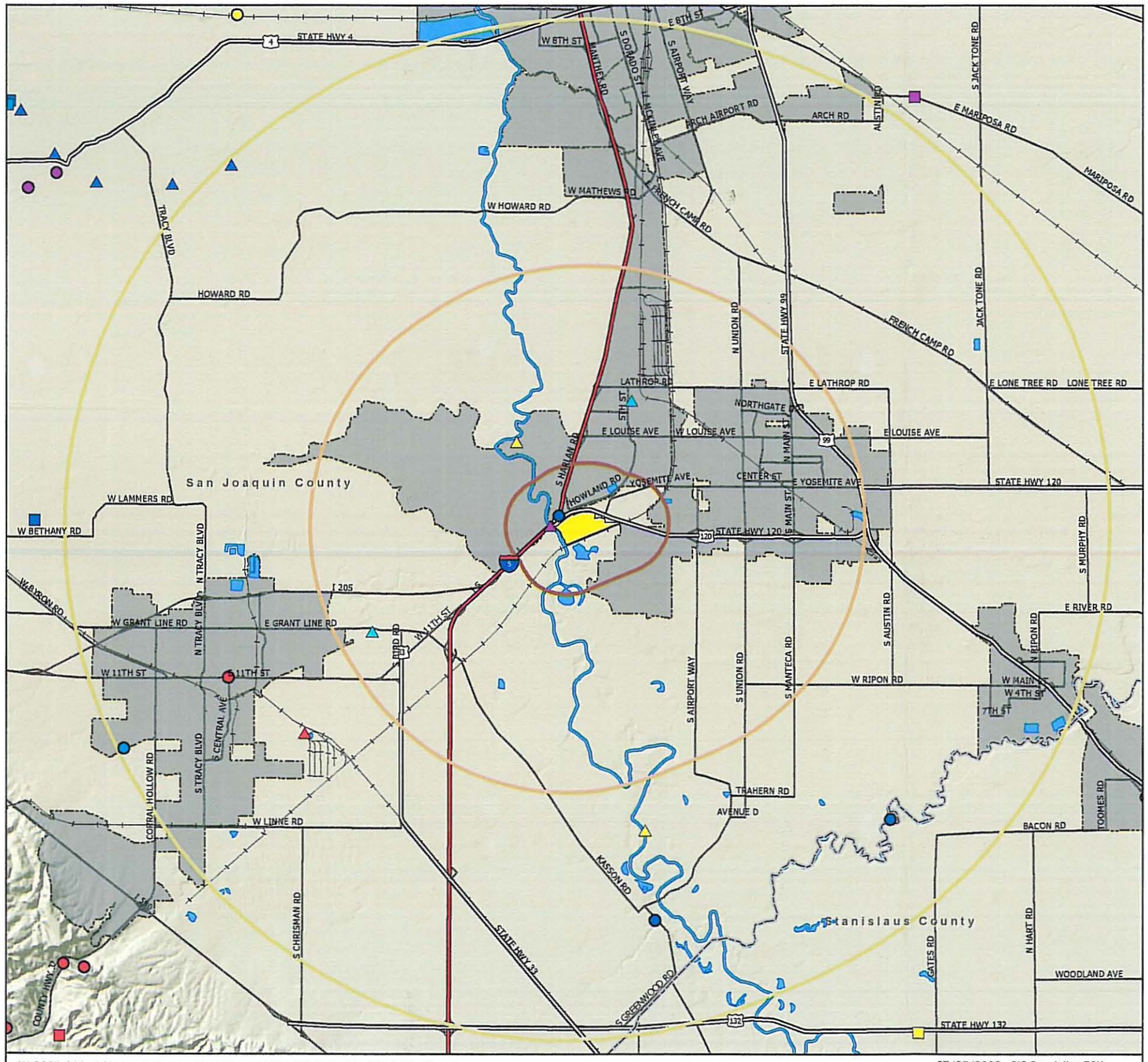
Plant species identification, nomenclature, and taxonomy followed *The Jepson Manual: Higher Plants of California* (Hickman 1993). Vegetation community classification was based on the classification systems presented in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer Jr. 1988).

RESULTS AND DISCUSSION

Previously Documented Special-Status Plant Occurrences

There are no previously documented occurrences of special-status plants within the site in the CNDDB (CDFG 2003). However, several special-status plant species occurrences have been documented within an approximate 10-mile radius of the site (Figure 4. *CNDDB Occurrences of Special-Status Plant Species*). These are:

- big tarplant (*Blepharizonia plumosa*, CNPS List 1B),
- round-leaved filaree (*California macrophylla*, CNPS List 1B),
- slough thistle (*Cirsium crassicaule*, CNPS List 1B),
- Delta button-celery (*Eryngium racemosum*, California endangered, CNPS List 1B),
- woolly rose-mallow (*Hibiscus lasiocarpus*, CNPS List 2),
- Suisun Marsh aster (*Symphyotrichum lentus*, CNPS List 1B),
- Wright's trichocoronis (*Trichocoronis wrightii*, CNPS List 2), and
- caper-fruited tropidocarpum (*Tropidocarpum capparideum*, CNPS List 1B).



N:\2007\2007-213 South Lathrop 6a 6b\MAPS\CNDDB\SL6_CNDDB_Plant_July08.mxd

07/25/2008 GIS Specialist: ECK

Figure 4. CNDDB Occurrences of Special-Status Plant Species

2007-213 South Lathrop 6a/6b

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Map Features

Administrative Boundaries
- Project Boundary [1]
- City Boundary
- County Boundary

Distance From Project
- 1 mile
- 5 mile
- 10 mile

Transportation
- Interstate
- State Highway
- Roads
- Railroads

Aquatic Features
- Lakes and Reservoirs
- Rivers

CNDDB Occurrences [2]
- Big Tarplant
- Bristly Sedge
- Caper-fruited Tropidocarpum
- Delta Button-celery
- Delta Mudwort
- Diamond-petaled California Poppy
- Lesser Saltscale
- Marsh Skullcap
- Mason's Lilaeopsis
- Recurved Larkspur
- Round-leaved Filaree
- Slough Thistle
- Suisun Marsh Aster
- Woolly Rose-mallow
- Wright's Trichocoronis

This map may include multiple species' occurrences at each location, some of which may not be visible on this graphic. The CNDDB occurrences shown may not reflect the actual location of the occurrence.

1 " = 13,000 '

SCALE IN FEET

0 6,500 13,000

NOTES

[1] Project Boundary: San Joaquin Parcel Database

[2] CDFG California Natural Diversity Database (CNDDB), July 2008 Update (GIS Shapefile)

CNDDB Occurrences Located on USGS 7.5' Quadrangles: Avena, Clifton Court Forebay, Holt, Lathrop, Manteca, Midway, Peters, Ripon, Salida, Stockton East, Stockton West, Tracy, Union Island, Vernalis, Woodward Island.

The results of the CNDDB query for the "Lathrop, California" 7.5-minute quadrangle are included as Attachment C. Each of the special-status plant species known to occur within the vicinity of the site was evaluated for its potential to occur on-site.

Several additional species located outside of the 10-mile radius around the site were also evaluated for their potential to occur on-site due to the presence of suitable habitat. These species are: San Joaquin saltbush (*Atriplex joquiniana*, CNPS List 1B), lesser saltscale (*Atriplex minuscula*, CNPS List 1B), and recurved larkspur (*Delphinium recurvatum*, CNPS List 1B).

Target Species

Based on the information listed above, vegetation communities and conditions present within the site, and data on known species' distribution, a list of potentially occurring special-status plants was developed. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis (Table 1).

Excluded Species

Six species (i.e., big tarplant, slough thistle, Delta button-celery, wooly rose-mallow, Suisun marsh aster, and caper-fruited tropidocarpum) were not included as target species, although there are documented occurrences of these species in the vicinity of the site. Big tarplant is known to occur primarily in the Diablo Mountain Range, at elevations above 100 feet above MSL. The project site is situated on the floor of the San Joaquin Valley at an elevation of 5-15 feet above MSL, below the elevational range of big tarplant. Slough thistle, delta button-celery, woolly rose-mallow, and Suisun marsh aster require chenopod scrub, riparian scrub, or marshes (CNPS 2001), none of which are present on-site. Although riparian vegetation is present on-site, it occurs within rock riprap and would not be accurately considered riparian scrub. In addition, there are no shallow water habitats with sediment accumulation for marsh species to establish. Caper-fruited tropidocarpum occurs on alkaline hills in valley and foothill grassland. Although alkaline grassland habitat is present in the eastern portion of the site, this species is considered extirpated from the San Joaquin Valley, and is currently known only from Fort

Table 1 – Potentially Occurring Special-Status Plants

Common Name	Scientific Name	Federal ESA Status	California ESA Status	Other Status	Habitat Description	Approximate Survey Dates
San Joaquin saltbush	*Atriplex joaquiniana*	-	-	1B	alkaline soils in chenopod scrub, meadows and seeps, playas, and valley and foothill grassland (3' - 2,740')	April-October
Lesser saltscale	*Atriplex minuscula*	-	-	1B	alkaline, sandy soils in chenopod scrub, playas, and valley and foothill grassland (50' - 660')	May-October
Round-leaved filaree	*California macrophylla*	-	-	1B	clay soils in cismontane woodland and valley and foothill grassland (50' - 3,940')	March-May
Recurved larkspur	*Delphinium recurvatum*	-	-	1B	alkaline soils in chenopod scrub, cismontane woodland, and valley and foothill grassland (10' - 2,640')	March-June
Wright's trichocoronis	*Trichocoronis wrightii* var. *wrightii*	-	-	2	alkaline meadows and seeps, marshes and swamps, riparian forest, and vernal pools (15' - 1,430')	May-September

Status Codes:

1B - California Native Plant Society/Rare or Endangered in California and elsewhere.

2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.

Hunter Liggett in Monterey County (CNPS 2008). Due to lack of suitable habitat, the above species were excluded from consideration in this survey.

The CNDDB reports an occurrence of Delta button-celery immediately adjacent to the northwest corner of the site; however, this occurrence is reported as possibly extirpated due to lack of suitable habitat (CDFG 2003).

Species Accounts

San Joaquin Spearscale

San Joaquin spearscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in alkaline areas within chenopod scrub, meadows and seeps, and valley and foothill grassland (CNPS 2001). San Joaquin spearscale blooms from April through October, and it is known to occur from 3 to 2,870 feet above mean sea level (CNPS 2001). San Joaquin spearscale is endemic to California, and the current range of this species includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Merced, Monterey, Napa, San Benito, Santa Clara, San Joaquin, San Luis Obispo, Solano, Tulare, and Yolo counties (CNPS 2008). However, it is likely extirpated from Santa Clara, San Joaquin, and Tulare counties (CNPS 2008).

The nearest reported occurrence of San Joaquin spearscale (CNDDB Occurrence No. 70) is located approximately 11 miles north of the site in Stockton (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, San Joaquin spearscale was not observed on-site.

Lesser Saltscale

Lesser saltscale is not listed pursuant to either the California or federal Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs in chenopod scrub, playas, and alkaline sandy soils in valley and foothill grassland

(CNPS 2001). Lesser saltscale blooms from May through October, and it is known to occur from 50 to 650 feet above mean sea level (CNPS 2001). Lesser saltscale is endemic to California, and the current range of this species includes Butte, Fresno, Kern, Madera, Merced, Stanislaus, and Tulare counties (CNPS 2008). However, it is likely extirpated from Stanislaus County (CNPS 2008).

The nearest reported occurrence of lesser saltscale (CNDDB Occurrence No. 29) is located approximately 12 miles southeast of the site along Highway 132 (CDFG 2003). The annual grassland in the eastern portion of the site represents suitable habitat for this species. During the surveys in 2008, lesser saltscale was not observed on-site.

Round-Leaved Filaree

Round-leaved filaree is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 1B species. This species is an herbaceous annual that occurs on clay soils in cismontane woodland, and Valley and foothill grassland communities (CNPS 2001). Round-leaved filaree blooms from March through May, and it is known to occur at elevations ranging from 50 to 3,960 feet above mean sea level (CNPS 2001). The current range of this species in California includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Lake, Lassen, Los Angeles, Merced, Monterey, Napa, Riverside, Santa Barbara, San Benito, Santa Clara, Santa Cruz Island, San Diego, San Joaquin, San Luis Obispo, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Ventura, and Yolo counties (CNPS 2008). However, it is likely extirpated from Butte County and Santa Cruz Island (CNPS 2008).

One occurrence of round-leaved filaree has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDB Occurrence No. 38) is located approximately 7 miles southwest of the site, outside of Tracy. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, round-leaved filaree was not observed on-site.

Recurved Larkspur

Recurved larkspur is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated a CNPS List 1B species. This species is an herbaceous perennial that occurs on alkaline soils in chenopod scrub, cismontane woodland, and Valley and foothill grasslands (CNPS 2008). Recurved larkspur blooms from March through June, and it is known to occur at elevations ranging from 10 to 2,500 feet above mean sea level (CNPS 2008). Recurved larkspur is endemic to California, and the current range of this species includes Alameda, Butte, Contra Costa, Colusa, Fresno, Glenn, Kings, Kern, Madera, Merced, Monterey, San Joaquin, San Luis Obispo, Solano, and Tulare counties (CNPS 2008). However, it is likely extirpated from Butte and Colusa counties (CNPS 2008).

The nearest reported occurrence of recurved larkspur (CNDDB Occurrence No. 73) is located approximately 11 miles northeast of the site, outside of Stockton. The annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, recurved larkspur was not observed on-site.

Wright's Trichocoronis

Wright's trichocoronis is not listed pursuant to either the federal or California Endangered Species Acts; however, it is designated as a CNPS List 2 species. This species is an herbaceous annual that occurs on alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, and vernal pools (CNPS 2001). Wright's trichocoronis blooms from May through September, and it is known to occur at elevations ranging from 15 to 1,425 feet above mean sea level (CNPS 2001). The current range for this species in California includes Colusa, Merced, Riverside, San Joaquin, and Sutter counties (CNPS 2008). However, this species is believed to be extirpated from Colusa, San Joaquin and Sutter counties (CNPS 2008).

One occurrence of Wright's trichocoronis has been reported within 10 miles of the site (CDFG 2003). This occurrence (CNDDB Occurrence No. 6) is located adjacent to the northwestern corner of the site; however the location information for this occurrence in the CNDDB is imprecise, and this species has not been reported in the area since 1914 (CDFG 2003). The

annual grassland in the eastern portion of the site represents potential habitat for this species. During the surveys in 2008, Wright's trichocoronis was not observed on-site.

Field Survey Results

No special-status plants were observed within the site during the determinate-level field surveys conducted on 7 May and 19 June 2008. A complete list of plant species encountered during this survey is included as Attachment D.

CONCLUSION

ECORP conducted a determinate-level special-status plant survey for the South Lathrop 6A and 6B site in San Joaquin County, California on 7 May and 19 June 2008. The target special-status plant species for this survey were San Joaquin saltbush, lesser saltscale, round-leaved filaree, recurved larkspur, and Wright's trichocoronis. No special-status plants were observed on-site during the 2008 field surveys.

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LIST OF ATTACHMENTS

Attachment A – Statement of Qualifications

Attachment B – Target Species Reference Source

Attachment C – California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)

ATTACHMENT A

Statement of Qualifications

Daria Snider B.S.
Botanist, ECORP Consulting, Inc.

Daria Snider is a botanist/biologist and trained wetland delineator specializing in biological resource assessment, plant taxonomy, plant ecology, habitat type assessment, invasive plant species, and California floristics. Mrs. Snider has three years of professional experience conducting field surveys for a variety of special-status plants throughout California. Her experience includes special-status plant surveys, general floristic surveys, floristic habitat assessments, vegetation mapping, riparian restoration design and monitoring, valley elderberry longhorn beetle surveys, and wetland delineation. Her botanical expertise extends throughout the Central Valley and mountain regions of northern California, with an emphasis on vernal pool, grassland, oak woodland, and riparian communities.

Keith Kwan, B.S.
Senior Biologist, ECORP Consulting, Inc.

Keith Kwan is a Biology Department Manager and is a wildlife biologist with experience throughout California in avian and wetland ecology, special-status flora and fauna, and regulatory permitting. Mr. Kwan has over 17 years of professional experience conducting field surveys for a variety of special-status plants and animals. His experience includes special-status species assessment and protocol-level surveys, general floristic and wildlife surveys, CEQA/NEPA compliance, and wetland delineations. His botanical expertise extends throughout Northern California, including the Central Valley and Sierra Nevada, and in the Great Basin in Nevada, with an emphasis on Central Valley annual grassland with vernal pools, oak woodland, Great Basin wetland, Valley/foothill riparian communities, and montane meadows.

ATTACHMENT B

Target Species Reference Source

Target Species Reference Source

Name	Location of Observation	Dates of Observation	Phenology	Remarks
San Joaquin saltbush *Atriplex joaquiniana*	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Leaves triangular, resembling *Chenopodium* leaves.
Lesser saltscale *Atriplex minuscula*	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Neither a reference population nor a herbarium specimen of this species could be located; therefore, the Jepson Manual's description of the species was reviewed thoroughly.
Round-leaved filaree *California macrophylla*	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Plant has heart-shaped palmate leaves and white flowers.
Recurved larkspur *Delphinium recurvatum*	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Reference population not available.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	UC Davis Herbarium	18 March 20008	Mounted herbarium specimens.	Inflorescence looks similar to *Cotula* species, but has weak stems, flower heads are discoid instead of disciform, and the flowers are white and maroon instead of yellow.

ATTACHMENT C

California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

Cirsium crassicaule

slough thistle

Element Code: PDAST2E0U0

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G2	**CNPS List:** 1B.1
State: None	**State:** S2.2	

Habitat Associations

General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M.

Occurrence No. 2 **Map Index:** 24860 **EO Index:** 6754

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown

Dates Last Seen
Element: 1933-07-20
Site: 1974-07-18
Record Last Updated: 1996-09-30

Quad Summary: Lathrop (3712173/462D)
County Summary: San Joaquin

Lat/Long: 37.81005° / -121.31942°
UTM: Zone-10 N4186070 E647935
Radius: 1 mile
Elevation: 10 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 33 **Qtr:** XX
Meridian: M

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.

Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.

Ecological: IN SHALLOW WATER OF CANAL.

Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS.

General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.

Owner/Manager: UNKNOWN

Eryngium racemosum

Delta button-celery — Element Code: PDAPI0Z0S0

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G2Q	CNPS List: 1B.1
State: Endangered	State: S2.1	

Habitat Associations

General: RIPARIAN SCRUB.

Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 3-75M.

Occurrence No. 3 — Map Index: 11611 — EO Index: 20069

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown

Dates Last Seen
Element: XXXX-XX-XX
Site: 1984-08-28
Record Last Updated: 2006-08-15

Quad Summary: Lathrop (3712173/462D)

County Summary: San Joaquin

Lat/Long: 37.78839° / -121.30334°
UTM: Zone-10 N4183692 E649395
Radius: 1 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 3 Qtr: XX
Meridian: M

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MILES SOUTH OF LATHROP.

Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.

General: HABITAT GONE IN 1984. 1913 COLLECTION BY SUKSDORF FROM THE PLAIN NEAR LATHROP AND 1892 COLLECTION BY BIOLETTI FROM LATHROP BOTH ATTRIBUTED HERE. INCLUDES FORMER OCCURRENCE #4.

Owner/Manager: PVT

Symphyotrichum lentum

Suisun Marsh aster — Element Code: PDASTE8470

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B.2

Habitat Associations
General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).
Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145 Map Index: 62567 EO Index: 62604
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1892-09-09
Site: 1892-09-09
Record Last Updated: 2005-09-13

Quad Summary: Lathrop (3712173/462D)
County Summary: San Joaquin

Lat/Long: 37.82249° / -121.27687°
UTM: Zone-10 N4187519 E651655
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 26 Qtr: XX
Meridian: M

Location: LATHROP.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.
Owner/Manager: UNKNOWN

Occurrence No. 146 Map Index: 62568 EO Index: 62605
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1920-09-30
Site: 1920-09-30
Record Last Updated: 2005-09-13

Quad Summary: Tracy (3712164/444B), Vernalis (3712163/444A), Lathrop (3712173/462D), Union Island (3712174/462C)
County Summary: San Joaquin

Lat/Long: 37.75395° / -121.37281°
UTM: Zone-10 N4179762 E643343
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 05E
Section: 24 Qtr: XX
Meridian: M

Location: NEAR BANTA.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.
Owner/Manager: UNKNOWN

Trichocoronis wrightii var. wrightii

Wright's trichocoronis — **Element Code:** PDAST9F031

Status	NDDB Element Ranks	Other Lists
Federal: None	**Global:** G4T3	**CNPS List:** 2.1
State: None	**State:** S1.1	

Habitat Associations

General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.

Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435M.

Occurrence No. 6 **Map Index:** 24681 **EO Index:** 6904

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown

Dates Last Seen
Element: 1914-09-27
Site: 1914-09-27
Record Last Updated: 1993-11-16

Quad Summary: Lathrop (3712173/462D)
County Summary: San Joaquin

Lat/Long: 37.78548° / -121.30651°
UTM: Zone-10 N4183364 E649121
Radius: 2/5 mile
Elevation: 20 ft
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 06E
Section: 3 **Qtr:** XX
Meridian: M

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.

Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.

General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.

Owner/Manager: UNKNOWN

ATTACHMENT D

Plant Species Observed On-Site (7 May and 19 June 2008)

Plant Species Observed On-Site (5 May and 19 June, 2008)
An asterisk (*) indicates a non-native species.

SCIENTIFIC NAME	COMMON NAME
AIZOACEAE	**FIG-MARIGOLD FAMILY**
Sesuvium verrucosum	Western sea purslane
APOCYNACEAE	**DOGBANE FAMILY**
Apocynum cannabinum	Indianhemp dogbane
ASTERACEAE	**SUNFLOWER FAMILY**
Artemisia douglasiana	Mugwort
*Carduus pycnocephalus**	Italian thistle
*Centaurea solstitialis**	Yellow star-thistle
*Chamomilla suaveolens**	Pineapple weed
*Cirsium vulgare**	Bull thistle
*Conyza bonariensis**	South American horseweed
*Gnaphalium luteo-album**	Weedy cudweed
Grindelia camporum	Gumplant
Heliotropium curassavicum	Seaside heliotrope
Hemizonia pungens	Common tarweed
Heterotheca grandiflora	Telegraph weed
*Lactuca serriola**	Prickly lettuce
*Silybum marianum**	Milk thistle
*Sonchus oleraceus**	Common sowthistle
Xanthium strumarium	Rough cockle-bur
AZOLLACEAE	**MOSQUITO FERN FAMILY**
Azolla filiculoides	Mosquito fern
BRASSICACEAE	**MUSTARD FAMILY**
*Brassica nigra**	Black mustard
*Brassica rapa**	Field mustard
*Coronopus didymus**	Wart-cress
*Hirschfeldia incana**	Shortpod mustard
*Lepidium latifolium**	Broad-leaf pepper grass
*Raphanus sativus**	Purple wild radish
Rorippa curvisiliqua	Yellow cress
CAPRIFOLIACEAE	**HONEYSUCKEL FAMILY**
Sambucus mexicana	Blue elderberry
CARYOPHYLLACEAE	**PINK FAMILY**
*Spergularia rubra**	Purple sandspurry

Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)
An asterisk (*) indicates a non-native species.

SCIENTIFIC NAME	COMMON NAME
CONVOLVULACEAE	**MORNING-GLORY FAMILY**
*Convolvulus arvensis**	Morning glory
Cressa truxillensis	Spreading alkali-weed
CUSCUTACEAE	**DODDER FAMILY**
Cuscuta species	Dodder
CYPERACEAE	**SEDGE FAMILY**
Carex aquatilis var. *dives*	Water sedge
Cyperus eragrostis	Tall flatsedge
EUPHORBIACEAE	**SPURGE FAMILY**
Eremocarpus setigerus	Turkey mullein
FABACEAE	**LEGUME FAMILY**
Lathyrus jepsonii var. *californicus*	California tule pea
*Lotus corniculatus**	Birdsfoot trefoil
*Medicago polymorpha**	Bur clover
*Medicago sativa**	Alfalfa
*Melilotus alba**	White sweetclover
*Melilotus indica**	Sweetclover
*Trifolium dubium**	Shamrock clover
*Trifolium repens**	White clover
*Vicia sativa**	Common vetch
*Vicia villosa**	Winter vetch
FAGACEAE	**OAK FAMILY**
Quercus lobata	Valley oak
GERANIACEAE	**GERANIUM FAMILY**
*Erodium cicutarium**	Filaree
JUNCACEAE	**RUSH FAMILY**
Juncus effusus var. *pacificus*	Soft rush
Juncus mexicanus	Mexican rush
LAMIACEAE	**MINT FAMILY**
*Marrubium vulgare**	Common horehound
*Mentha pulegium**	Pennyroyal

Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)
An asterisk (*) indicates a non-native species.

SCIENTIFIC NAME	COMMON NAME
LYTHRACEAE	**LOOSESTRIFE FAMILY**
*Lythrum hyssopifolia**	Hyssop loosestrife
MALVACEAE	**MALLOW FAMILY**
*Malva nicaeensis**	Bull mallow
*Malva parviflora**	Cheeseweed
Malvella leprosa	Alkali-mallow
OLEACEAE	**OLIVE FAMILY**
Fraxinus latifolia	Oregon ash
ONAGRACEAE	**EVENING PRIMROSE FAMILY**
Epilobium brachycarpum	Panicled willow-herb
Ludwigia peploides ssp. peploides	Water primrose
*Oenothera biennis**	Common evening primrose
PLANTAGINACEAE	**PLANTAIN FAMILY**
*Plantago major**	Broad-leaf plantain
POACEAE	**GRASS FAMILY**
*Agrostis avenacea**	Bentgrass
*Avena barbata**	Slender wild oat
*Avena fatua**	Wild oat
*Bromus catharticus**	Rescue grass
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft brome
*Bromus madritensis ssp. rubens**	Red brome
*Crypsis schoenoides**	Swamp grass
*Cynodon dactylon**	Bermuda grass
*Digitaria sanguinalis**	Hairy crabgrass
Distichlis spicata	Inland saltgrass
*Festuca arundinacea**	Kentucky fescue
*Hordeum marinum**	Mediterranean barley
*Hordeum murinum**	Barley
Leersia oryzoides	Rice cutgrass
Leymus triticoides	Creeping wild-rye
*Lolium multiflorum**	Ryegrass
Muhlenbergia rigens	Deergrass
*Paspalum dilatatum**	Dallis grass
*Poa annua**	Annual bluegrass
*Polypogon interruptus**	Beard grass
*Polypogon monspeliensis**	Annual rabbit-foot grass

Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)
An asterisk (*) indicates a non-native species.

SCIENTIFIC NAME	COMMON NAME
Setaria gracilis	Bristley foxtail
*Vulpia myuros**	Rat-tail vulpia
POLYGONACEAE	**BUCKWHEAT FAMILY**
*Polygonum arenastrum**	Prostrate knotweed
*Rumex crispus**	Curly dock
PRIMULACEAE	**PRIMROSE FAMILY**
*Anagallis arvensis**	Scarlet pimpernel
RANUNCULACEAE	**BUTTERCUP FAMILY**
Ranunculus sceleratus	Cursed buttercup
ROSACEAE	**ROSE FAMILY**
*Prunus dulcis**	Almond (cultivated)
Pyracantha species	Pyracantha species
Rosa californica	California rose
*Rubus armeniacus**	Himalayan blackberry
RUBIACEAE	**MADDER FAMILY**
Cephalanthus occidentalis	Common buttonbush
SALICACEAE	**WILLOW FAMILY**
Populus fremontii	Fremont's cottonwood
Populus species	Poplar
Salix exigua	Sandbar willow
Salix gooddingii	Goodding's black willow
Salix lasiolepis	Arroyo willow
SCROPHULARIACEAE	**FIGWORT FAMILY**
Veronica peregrina ssp. *xalapensis*	Purslane speedwell
SOLANACEAE	**NIGHTSHADE FAMILY**
Datura wrightii	Sacred thornapple
Nicotiana glauca	Tree tobacco
TYPHACEAE	**CATTAIL FAMILY**
Typha latifolia	Broad-leaf cattail

Plant Species Observed On-Site (5 May and 19 June, 2008) (Continued)
An asterisk (*) indicates a non-native species.

SCIENTIFIC NAME	COMMON NAME
VERBENACEAE	**VERVAIN FAMILY**
Phyla nodiflora	Common frog-fruit
*Verbena bonariensis**	South American vervain

Special-Status Plant Survey

For

South Lathrop 6A and 6B

San Joaquin County, California

29 August 2008

Prepared For:
Richland Planned Communities, Inc.

LIST OF ATTACHMENTS

Attachment A – Statement of Qualifications

Attachment B – Target Species Reference Source

Attachment C – California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

Attachment D – Plant Species Observed On-Site (7 May and 19 June 2008)

ATTACHMENT A

Statement of Qualifications

ATTACHMENT B

Target Species Reference Source

ATTACHMENT C

California Natural Diversity Database Plant Occurrences for the "Lathrop, California" 7.5-minute Quadrangle

ATTACHMENT D

Plant Species Observed On-Site (7 May and 19 June 2008)

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

25 October 2007

Mr. Clifton Taylor
Richland Planned Communities
2220 Douglas Boulevard, Suite 290
Roseville, California 95661

RE: South Lathrop Sites 6A and 6B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Dear Mr. Taylor:

ECORP Consulting, Inc. (ECORP) has conducted a burrowing owl and riparian brush rabbit habitat assessment within the 277-acre South Lathrop Sites 6A and 6B project area. The project site is located south of Highway 120, east of the Interstate 5 and Highway 560 Interchange, and south of Madruga Road - with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The field study included surveys of all areas that represented potentially suitable habitat for burrowing owls (*Athene cunicularia*), and was conducted via visual observations on 19 October 2007 by ECORP biologist Tom Scofield. Binoculars (10x40 magnification) and a spotting scope (15-45X magnification) were used to assist with field identification and observations. Transects (approximately 30 meters apart) were walked through all non-agricultural open areas to identify and record potential burrowing owls and/or their burrows. California ground squirrel (*Spermophilus beecheyi*) burrows observed were investigated for the presence of owl use (e.g., fecal pellets, white-wash, or feathers). The riparian brush rabbit (*Sylvilagus bachmani riparius*) habitat assessment was conducted in conjunction with the burrowing owl survey on October 19, 2007, and included surveys of the entire property to determine if any areas represented potentially suitable habitat for brush rabbits.

During the survey, no burrowing owls or any sign of burrowing owls were observed on-site or adjacent to the project. The site, however, supports high densities of ground squirrels and associated burrows that provide potentially suitable habitat for burrowing owls. Particularly in non-agricultural areas of the project including earthen berms along dirt roadways, the adjacent railroad earthen berm to the south, and the San Joaquin River levee to the west.

The area of the project bounded by the San Joaquin River levee road on the east, the San Joaquin River to the west, the railroad/railroad bridge to the south, and Highway 120 to the

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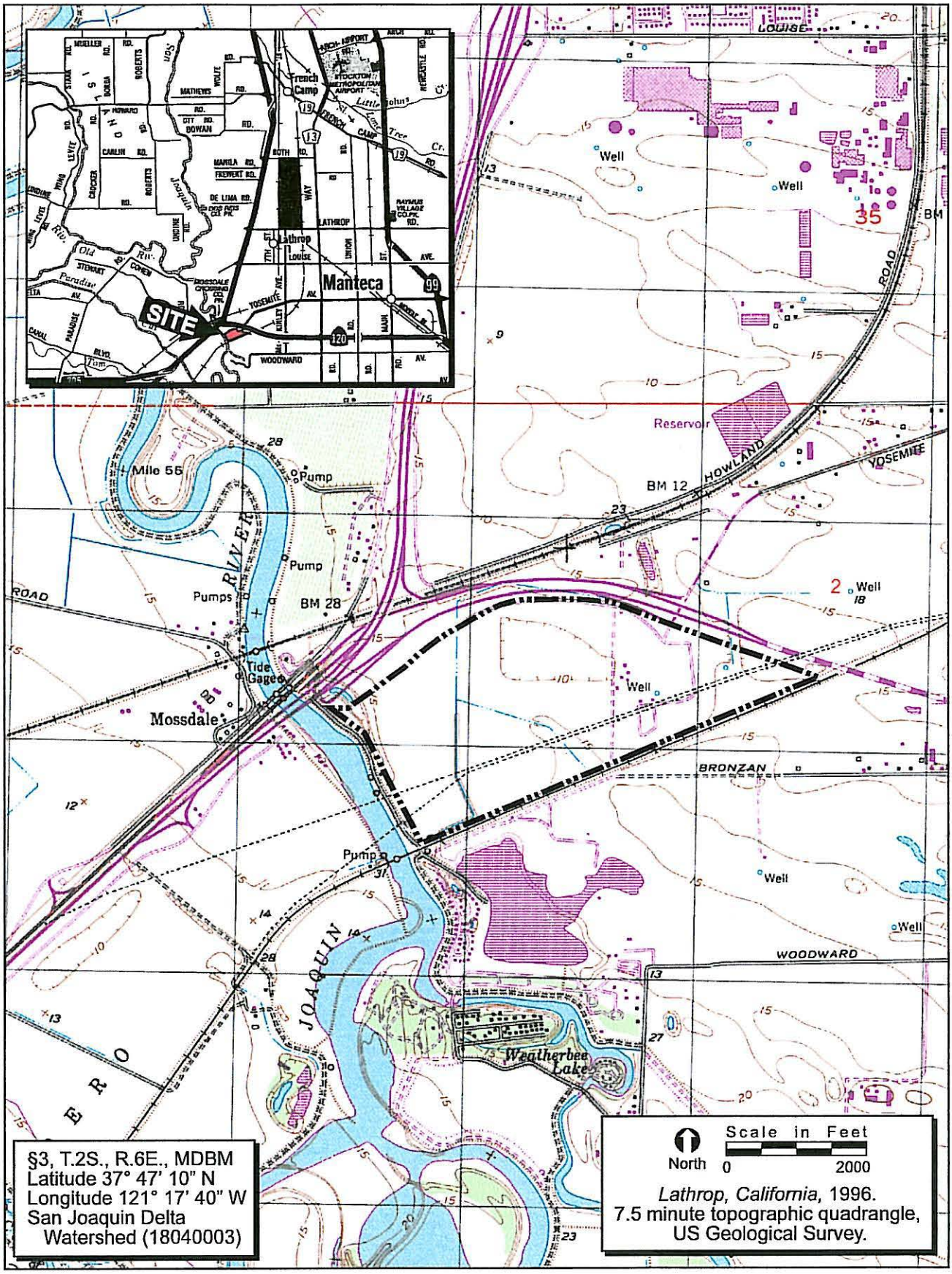

FIGURE 1. Project Site and Vicinity

2004-096 South Lathrop 6a & 6b

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

north represents the only potentially suitable habitat for riparian brush rabbit on-site. The habitat within this narrow strip is highly variable in vegetative composition. The approximate northern half of this area is predominantly non native annual grasslands while the southern half is a mix of oak (*Quercus* spp.), cottonwood (*Populus* spp.), and willow riparian woodland with a variable understory including patches of non-native annual grassland, California wild rose (*Rosa californica)*, stinging nettles (*Urtica dioica*), and willow scrub (*Salix* spp.). As such, the southern portion of the interior (river side) levee area provides potentially suitable riparian habitat for riparian brush rabbit.

In conclusion, no burrowing owls, burrowing owl nests, or occupied burrows were observed during the 19 October 2007 burrowing owl survey visit at the South Lathrop Sites 6A and 6B project area. All raptors (owls, hawks, eagles, and falcons), including their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the Federal Migratory Bird Treaty Act, among other federal and state regulations. The California Department of Fish and Game (CDFG) recommends that a 250-foot radius buffer be placed around active burrowing owl nesting burrows during the active nesting period (approximately February 1 – August 31). During this period, no construction activities shall occur within the buffer area. Approval from the CDFG would be required for any activities within a 250-foot radius of burrowing owl nesting locations within the survey area. Once a qualified biologist has determined that burrowing owl nestlings have fledged, or become independent of their nest, construction activities may proceed within the identified buffer area(s), and individuals may be excluded from their burrows following accepted CDFG methodologies [CDFG *Staff Report on Burrowing Owl Mitigation* (1995)].

Riparian brush rabbits are generally known to inhabit dense, brushy areas of Valley riparian forests marked by extensive thickets of understory vegetation such as California wild rose, California blackberries (*Rubus ursinus)*, and willows. Although the riparian habitat on-site has been disturbed and is subject to ongoing disturbances including flooding, levee maintenance activities (e.g., rip rap placement), and invasion and control of exotic plant species (e.g. weed abatement for non-native annual grasses and forbs), the on-site area occurring on the interior levee side between the San Joaquin River and the levee road, will likely be considered riparian brush rabbit habitat by the United States Fish and Wildlife Service (USFWS). As such, project approval would likely require submittal of a Biological Assessment to the USFWS to address potential affects to riparian brush rabbit, and any additional federally listed species that may occur on-site (e.g., VELB) as part of the Section 7 consultation process.

If you have any questions feel free to contact me at (916) 782-9100.

Sincerely,

Tom Scofield
Wildlife Ecologist

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

6 November 2007

Clifton Taylor
Richland Planned Communities, Inc.
2220 Douglas Boulevard, Suite #290
Roseville, California 95661

RE: South Lathrop 6A and 6B, San Joaquin County, California – Valley Elderberry Longhorn Beetle Survey

Dear Mr. Taylor:

On behalf of Richland Planned Communities, Inc., ECORP Consulting, Inc. (ECORP) conducted a survey for elderberry (*Sambucus* species), host plant of the federally-listed threatened Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, VELB), within the South Lathrop 6A and 6B site. The 277±-acre South Lathrop 6A and 6B site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). This site corresponds to a portion of Section 2 and an unsectioned portion of Township 2 South and Range 6 East (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of the Interior, Geological Survey 1978).

VALLEY ELDERBERRY LONGHORN BEETLE LIFE HISTORY

The VELB was listed as a threatened species pursuant to the federal Endangered Species Act on 08 August 1980 (USFWS 1980). The U.S. Fish and Wildlife Service (USFWS) recently released a status review for the VELB in which it determined that this species is likely no longer in danger of extinction and recommended that it be delisted (USFWS 2006). However, the USFWS is required to undertake a separate rule-making process, distinct from the status review, in order to implement formal changes in the status of a listed species.

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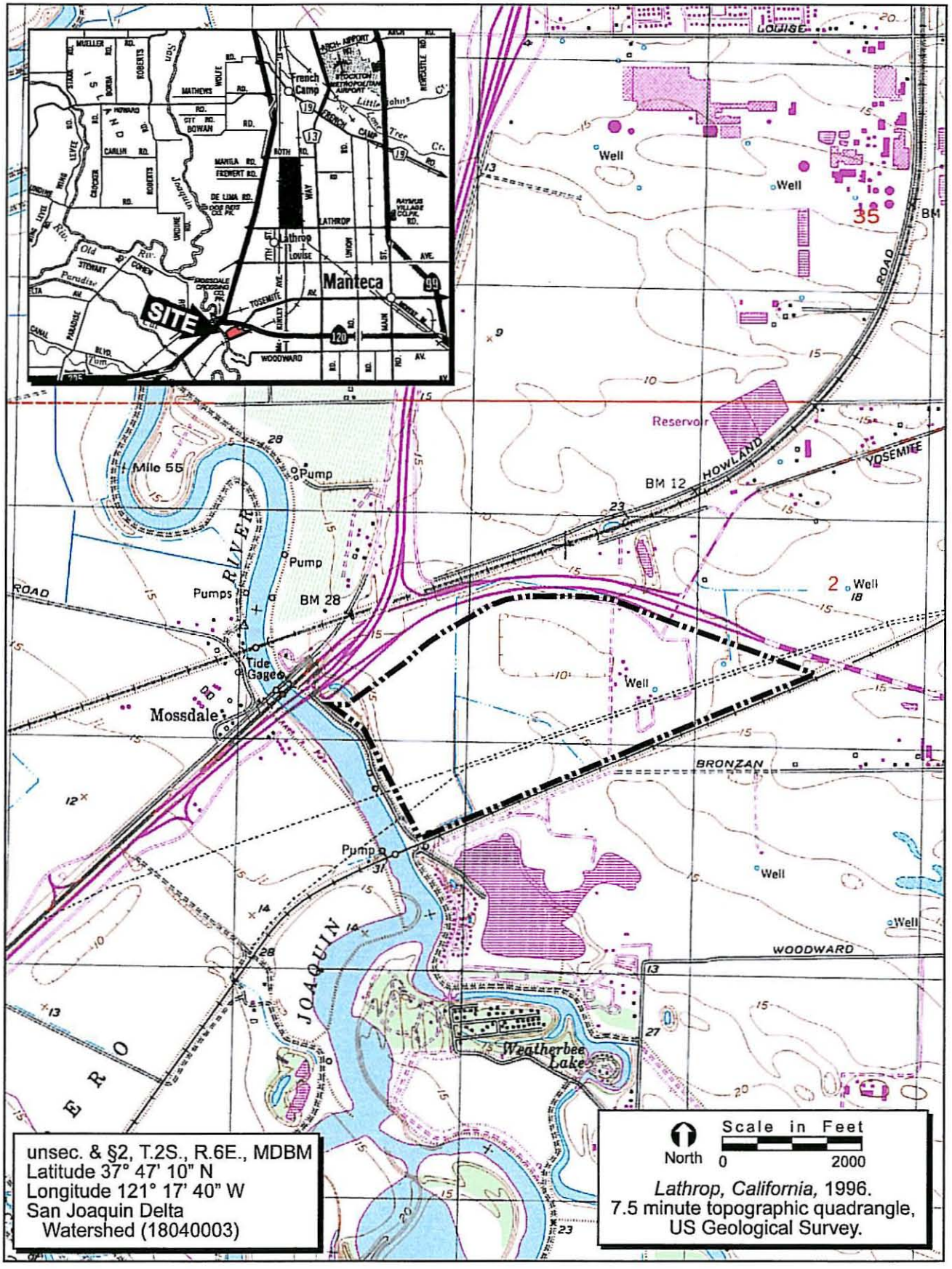

FIGURE 1. Project Site and Vicinity

2007-213 South Lathrop 6a/6b

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The VELB is completely dependent on its host plant, elderberry, which typically occurs in riparian and other woodland communities in California's Central Valley and the associated foothills (USFWS 1999). Elderberry plants, located within the range of VELB, with one or more stems measuring 1.0 inch or greater in diameter at ground level are considered habitat for the species (USFWS 1999).

The adult VELB flight season extends from late March through June. During that time the adults feed on foliage and perhaps flowers, mate, and then females lay eggs on living elderberry plants (Barr 1991). After hatching, VELB larvae bore into live elderberry stems, where they develop for one to two years while feeding on the pith. The final larval stage creates an emergence hole in the stem and then plugs the hole, remaining within the stem through pupation (Collinge et al. 2001, Talley et al. 2007). Following pupation, the adult beetle emerges from the previously created emergence hole and completes its life cycle.

At the time of its listing, the VELB was known from less than 10 localities in Merced, Sacramento, and Yolo counties (USFWS 1980). The VELB's current distribution is patchy throughout California's Central Valley and associated foothills, to an elevation of approximately 3,000 feet (USFWS 1999). All or a portion of the following 31 counties are included within the range of this species: Alameda, Amador, Butte, Calaveras, Colusa, Contra Costa, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Madera, Mariposa, Merced, Napa, Nevada, Placer, Sacramento, San Benito, San Joaquin, San Luis Obispo, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, and Yuba (USFWS 1999).

EXISTING SITE CONDITIONS

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The western portion of the site is currently being used for agricultural practices, including alfalfa (*Medicago sativa*) production. The eastern portion of the site contains a small pasture for cattle and horse grazing, a ruderal grassland community, and various commercial businesses located north of the pasture along Guthmiller and Madruga Roads.

Plant species observed around the agricultural fields included heliotrope (*Heliotropium* species), prostrate knotweed (*Polygonum arenastrum*), curly dock (*Rumex crispus*), mallow (*Malva* species), fireweed (*Epilobium branchycarpum*), and cockle-bur (*Xanthium* species). A riparian community occurs along the western boundary of the site, adjacent to the San Joaquin River. Vegetation observed within this community included Fremont's cottonwood (*Populus fremontii*), Valley oak (*Quercus lobata*), California buttonbush (*Cephalanthus occidentallis* var. *californicus*), willow (*Salix* species), bermuda grass (*Cynodon dactylon*), ripgut brome (*Bromus diandrus*), cockle-bur, Russian thistle (*Salsola tragus*), jimsonweed (*Datura* species), tree tobacco (*Nicotiana glauca*), wild rose (*Rosa* species), fireweed, curly dock, and mugwort (*Artemesia douglasiana*). Vegetation along the southern boundary of the site, adjacent to the railroad tracks, included alder (*Alnus* species), goosefoot (*Chenopodium* species), and Canada horseweed (*Conyza canadensis*).

Vegetation within the pasture included rose clover (*Trifolium hirtum*), bermuda grass, barnyard grass (*Echinochloa crus-galli*), and birdsfoot trefoil (*Lotus corniculatus*). Vegetation within the ruderal grassland community included yellow star-thistle (*Centaurea solstitialis*), telegraph weed (*Heterotheca grandiflora*), and mallow.

METHODS

ECORP biologists Marin Meza and Debra Sykes conducted a determinate elderberry survey within the South Lathrop 6A and 6B site on 17 October 2007. The survey was conducted in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1999). Mrs. Meza and Mrs. Sykes walked the entire site searching for the presence of elderberry shrubs and VELB. The western portion of the site was surveyed primarily from along the edges of the agricultural fields, along the San Joaquin River, and along the railroad tracks, scanning the entire area for elderberry shrubs. Meandering transects were walked throughout the eastern portion of the site.

FINDINGS

Two elderberry shrubs were identified within the South Lathrop 6A and 6B site during the elderberry survey conducted on 17 October 2007 (Figure 2. *Elderberry Shrub Locations*). No evidence of VELB occurrence on-site (i.e., adult beetles or emergence holes) was observed. Elderberry shrub data (height, stem count, etc.) are summarized in Table 1. The results of this survey are valid for a period of two years (USFWS 1999).

Table 1 – Findings of the Elderberry Survey Conducted 17 October 2007

Shrub ID	Max Height (ft)	Number of Stems per Size (in)				Maximum Stem Diameter (in)	Exit Holes (Yes/No)	Riparian (Yes/No)
		<1	≥1-≤3	>3-<5	≥5			
1	7	17	14	0	0	1	No	No
2	10	51	11	1	0	3.5	No	No

If you have any further questions regarding the findings of this survey, please feel free to call me at (916) 782-9100.

Sincerely,

Marin Meza
Biologist

Location: J:\GIS_Maps\2004-096_South_Lathrop_6A_6B\Elderberry.mxd

Figure 2. Elderberry Shrub Locations

2007-213 South Lathrop 6A/6B

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REFERENCES

Barr, C.B. 1991. The distribution, habitat and status of the valley elderberry longhorn beetle (*Desmocerus californicus dimorphis* Fisher) (Coleoptera: Cerambycidae). U.S. Fish and Wildlife Service, Sacramento, CA.

Collinge, S.K., M. Holyoak, C.B. Barr, and J.T. Marty. 2001. Riparian habitat fragmentation and population persistence of the threatened valley elderberry longhorn beetle in central California. Biological Conservation 100(2001): 103-113.

Talley, T.S., E. Fleishman, M. Holyoak, D.D. Murphy, and A. Ballard. 2007. Rethinking a rare-species conservation strategy in an urban landscape: The case of the valley elderberry longhorn beetle. Biological Conservation 135(2007):21-32.

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U.S. Department of the Interior, Fish and Wildlife Service (USFWS). 2006. Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*) 5-Year Status Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, CA.

U.S. Department of the Interior, Geological Survey. 1978. Hydrologic Unit Map, State of California. Geological Survey. Reston, Virginia.

U.S. Department of the Interior, Geological Survey. 1996. "Lathrop, California" 7.5-minute Quadrangle, Geologic Survey. Denver, Colorado.

WETLAND DELINEATION

FOR

SOUTH LATHROP 6A & 6B

SAN JOAQUIN COUNTY, CALIFORNIA

November 10, 2005

Prepared for:
Richland Planned Communities

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Wetland Delineation

South Lathrop 6A & 6B

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Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

1.0 INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a wetland delineation of the 277-acre South Lathrop 6a & 6b project site. The project site is located south of Highway 120 and east of the Interstate 5 and Highway 560 interchange and south of Madruga Road with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity Map*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

This report describes waters of the United States, including wetlands, identified within the project site that may be regulated by the U.S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The information presented in this report provides data required by the U.S. Army Corps of Engineers Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetland Delineations* (U.S. Army Corps of Engineers 2001). The waters of the U.S. boundaries depicted in this report represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process.

APPLICANT:

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Richland Planned Communities
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AGENT:

Attn: Ms. Stacy Roper
ECORP Consulting, Inc.
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Roseville, California 95661
Phone: (916) 782-9100
Fax: (916) 782-9134

1.1 Existing Site Conditions

The site is composed of relatively flat terrain and is situated at an elevation of approximately 15 feet above mean sea level. The majority of the project site is being used for agricultural

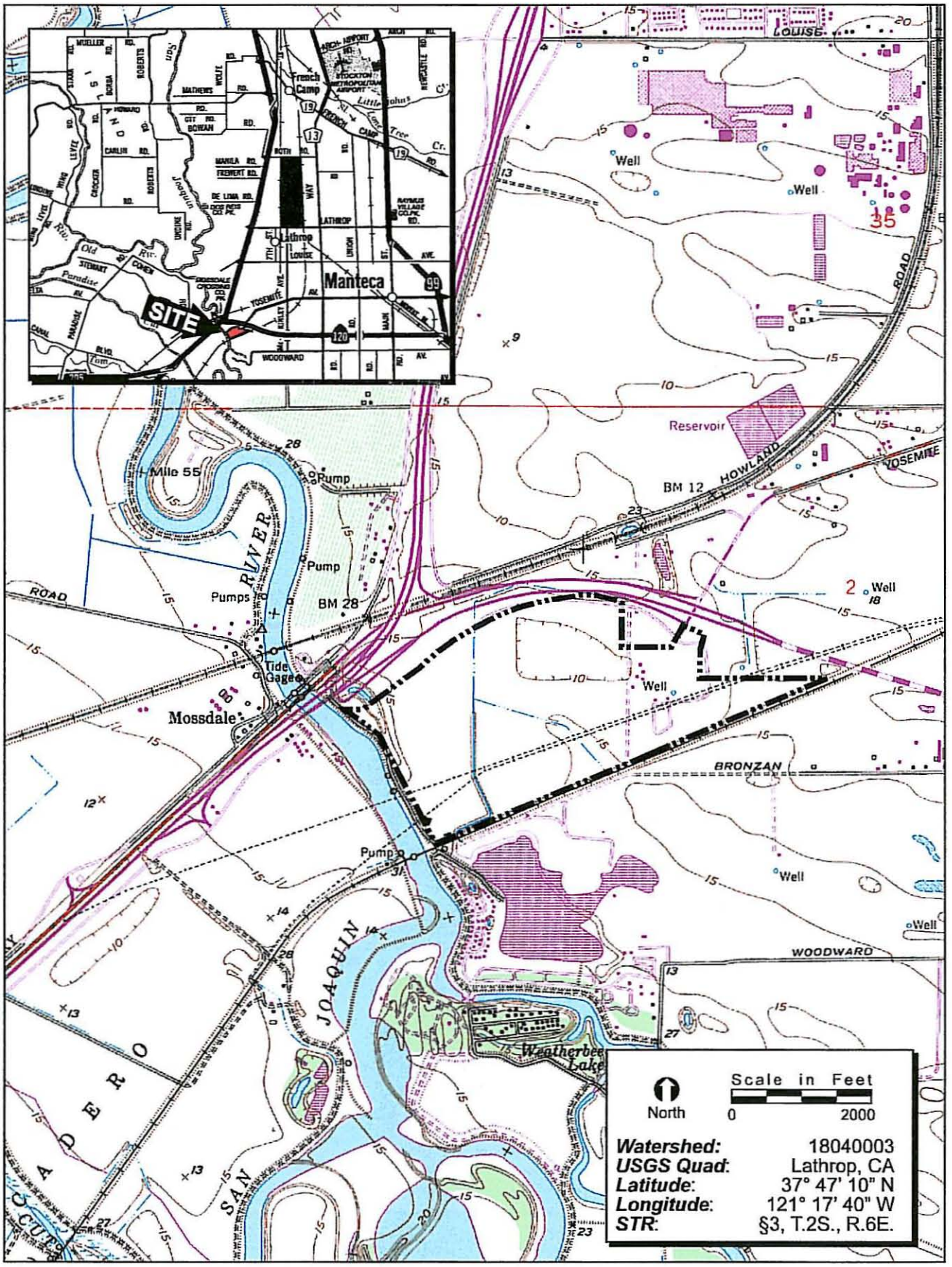

FIGURE 1. Project Site and Vicinity Map

2004-096 South Lathrop 6a & 6b

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ENVIRONMENTAL CONSULTANTS
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practices (i.e., alfalfa, winter wheat, and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production with a small cattle grazing area located in the southern central portion of the project site. The vegetation within the pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crusgalli*), and birdsfoot trefoil (*Lotus corniculatus*). There are several buildings located within the project site including farmhouses and truck maintenance company east of Guthmiller Road. The rest of the project site is ruderal grassland habitat. The vegetation within the ruderal grassland habitat include yellow-star thistle (*Centaurea solstitialis*), Telegraph weed (*Heterotheca grandiflora*), and Common mallow (*Malva neglecta*).

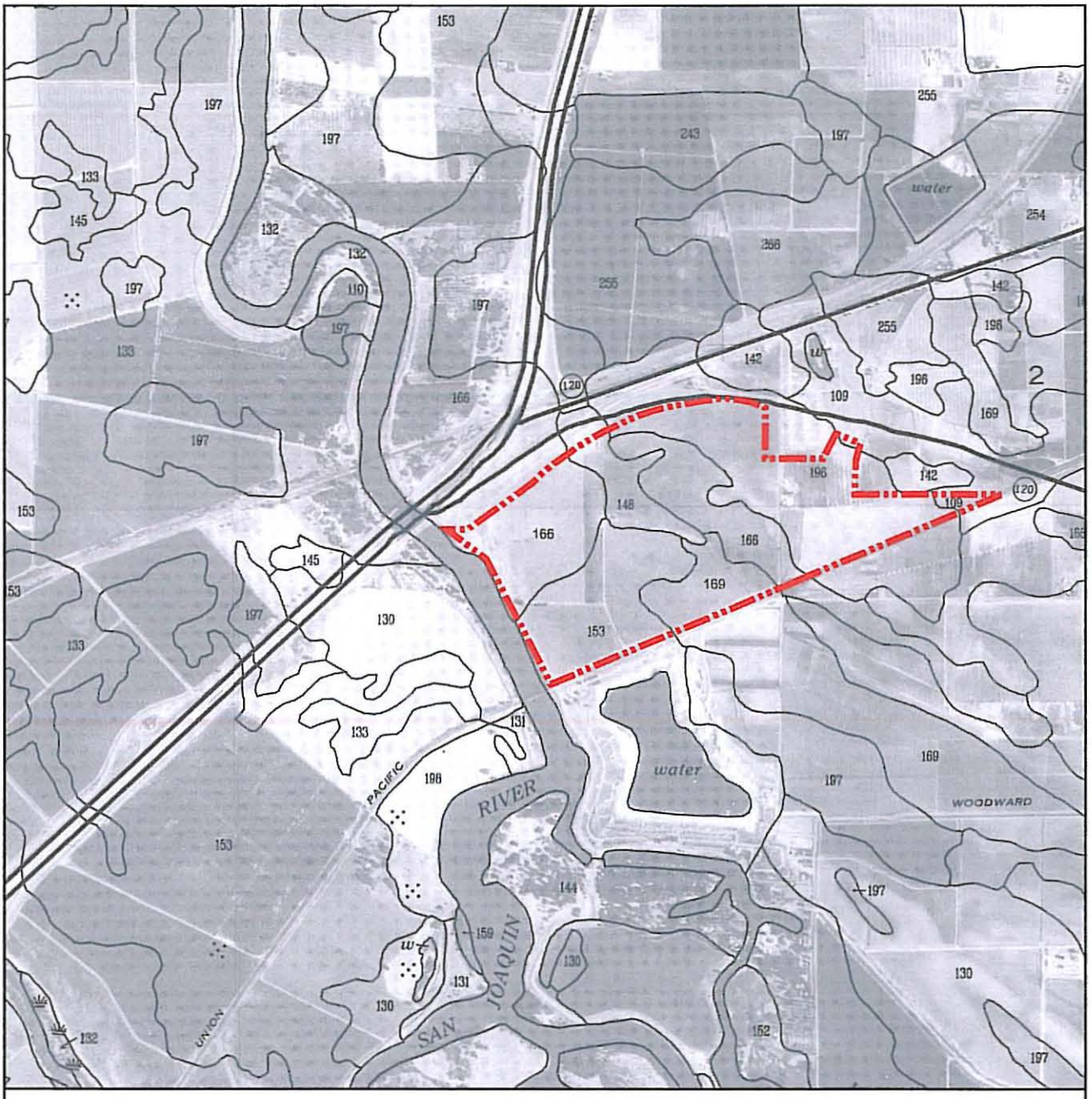
A detention basin is located north of the truck maintenance yard and collects runoff throughout the year. Runoff is coming from storm drains within the parking lot. There is no outflow of water from the detention basin. Water is evaporated out of the detention basin.

Aquatic features on-site include a stock pond, seasonal wetlands, seasonal wetland swales, and a detention basin. These features are further described in the Results section.

According to the *Soil Survey of San Jaoquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992), six soil units, or types, have been mapped within the project site (Figure 2. *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0-2% slopes, 148) Dello clay loam, drained, 0-2% slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0-2% slopes, (166) Grangeville fine sandy loam, partially drained, 0-2% slopes, (169) Guard clay loam, drained, 0-2% slopes, and (196) Manteca fine sandy loam, 0-2% slopes. All the soil units contain hydric inclusions. Dello clay loam and Egbert silty clay loam consists of listed hydric components (U.S. Department of Agriculture, Soil Conservation Service 1992).

2.0 METHODS

This wetland delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). The waters of the U.S. boundaries were



SOIL KEY

109* Bisgani loamy coarse sand, partially drained, 0-2% slopes
148* ** Dello clay loam, drained, 0-2% slopes, overwashed
153* ** Egbert silty clay loam, partially drained, 0-2% slopes
166** Grangeville fine sandy loam, partially drained, 0-2% slopes
169** Guard clay loam, drained, 0-2% slopes
196** Manteca fine sandy loam, 0-2% slopes

** Soil unit consists of listed hydric components.*
*** Soil unit contains listed hydric inclusions.*

NRCS Soil Survey, San Joaquin County, California, 1992.

North

Scale in Feet
0 2000

FIGURE 2. Natural Resources Conservation Service Soil Types

delineated through aerial photograph interpretation and standard field methodologies (i.e., paired data set analyses), and all wetland data were recorded on Routine Wetland Determination Forms (Appendix A). A color aerial photograph (1"=300' scale, Airphoto 2002) was used to assist with mapping and ground-truthing. *Munsell Soil Color Charts* (Kollmorgen Instruments Co. 1990) and the *Soil Survey of San Joaquin County, California* (U.S. Department of Agriculture, Soil Conservation Service 1992) were used to aid in identifying hydric soils in the field. *The Jepson Manual* (Hickman, *ed.* 1993) was used for plant nomenclature and identification.

Field wetland surveys were conducted on December 8, 2004 and August 15, 2005 by ECORP biologist Stacy Roper. Ms. Roper walked the entire 277±-acre project site to determine the location of potentially jurisdictional boundaries within the property. Six paired data point locations and four single point locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a determination of wetland or non-wetland status. At each paired location, one point was located such that it was within the estimated wetland area, and the other point was situated outside the limits of the estimated wetland area. The data collected at each single point location was used to support a non-wetland determination. The total area of the wetlands within the property was recorded in the field using a post-processing capable global positioning system (GPS) unit with sub-meter accuracy (Trimble GeoXT).

2.1 Waters Of The United States

This report describes waters of the United States that may be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Wetlands are "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (Environmental Laboratory 1987). Wetlands can be perennial or intermittent, and isolated or adjacent to other waters.

Other waters are non-tidal, perennial, and intermittent watercourses and tributaries to such watercourses (33 CFR 328.3(a) Corps Regulatory Program Regulations, *Federal Register* 51(219), November 13, 1986). The limit of Corps jurisdiction for non-tidal watercourses (without adjacent wetlands) is defined in 33 CFR 328.3 (e) as the "ordinary high water mark" (OHWM). The

OHWM is defined as the "*line on the (watercourse banks) established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding areas*"(33 CFR 328.3 (e). The bank-to-bank extent of the channel that contains the water-flow during a normal rainfall year generally serves as a good first approximation of the lateral limit of Corps jurisdiction. The upstream limits of other waters are defined as the point where the OHWM is no longer perceptible.

2.2 Routine Determinations

To be determined a wetland; the following three parameters should be present:

- A majority of dominant vegetation species are wetland associated species;
- Hydrologic conditions exist that result in periods of flooding, ponding, or saturation during the growing season; and
- Hydric soils are present.

2.2.1 Vegetation

Hydrophytic vegetation is defined as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanent or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present (Environmental Laboratory 1987). The definition of wetlands includes the phrase "a prevalence of vegetation typically adapted for life in saturated soil conditions." Prevalent vegetation is characterized by the dominant plant species comprising the plant community (Environmental Laboratory 1987). The "50/20 rule" was used to determine the dominant plant species at each data point location. The rule states that for each stratum in the plant community, dominant species are the most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that immediately exceed 50 percent of the total dominance measure for the stratum, plus any additional species that individually

comprise 20 percent or more of the total dominance measure for the stratum (HQUSACE 1992).

Dominant plant species observed at each data point were then classified according to their indicator status (probability of occurrence in wetlands) (Table 1), in accordance with the U.S. Fish and Wildlife Service's (USFWS) National List of Vascular Plant Species That Occur in Wetlands: California (Region 0) (Reed 1988). If the majority (greater than 50 percent) of the dominant vegetation on a site are classified as obligate (OBL), facultative wetland (FACW), or facultative (FAC) (excluding FAC-), then the site is considered to by dominated by hydrophytic vegetation.

Table 1. Classification of Wetland-Associated Plant Species[1]

Plant Species Classification	Abbreviation[2]	Probability of Occurring in Wetland
Obligate	OBL	>99%
Facultative Wetland	FACW	66-99%
Facultative	FAC	33-66%
Facultative Upland	FACU	1-33%
Upland	UPL	<1%
No indicator status	NI	Insufficient information to determine status
Plants That Are Not Listed (assumed upland species)	NL	Does not occur in wetlands in any region.

[1] Source: Reed 1988

[2] A '+' or '–' symbol can be added to the classification to indicate greater or lesser probability, respectively, of occurrence in a wetland.

2.2.2 Soils

A hydric soil is defined as a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS 2003). Indicators that a hydric soil is present include soil color (gleyed soils and soils with bright mottles and/or low matrix chroma), aquic or preaquic moisture regime, reducing soil conditions, sulfidic material (odor), soils listed on hydric soils list, iron and manganese concretions, organic soils (Histosols), histic epipedon, high organic content in surface layer in sandy soils, and organic streaking in sandy soils.

A soil pit was excavated to a depth of 16 inches or refusal at each data point. The soil was then examined for hydric soil indicators. The matrix color and mottle color (if present) of the soil was determined using the *Munsell Soil Color Charts*.

2.2.3 Hydrology

Wetlands, by definition, are seasonally inundated or saturated at or near (within 12 inches of) the soil surface. To be classified as a wetland, a site should have at least one primary indicator or two secondary indicators of wetland hydrology. Primary indicators of wetland hydrology may include, but are not limited to: water marks, drift lines, sediment deposition, drainage patterns, visual observation of saturated soils, and visual observation of inundation. In addition to the primary indicators, there are a variety of secondary wetland hydrology indicators. Secondary indicators include, but are not limited to: oxidized root channels in the upper 12 inches, water-stained leaves, and local soil survey data. When no primary indicators of wetland hydrology are observed at a data point, two or more secondary indicators are required to confirm wetland hydrology.

3.0 RESULTS

A total of 0.306 acre of potentially jurisdictional waters of the U.S has been mapped for this site (Table 2). The routine wetland determination forms are included in Appendix A, and a list of plant species observed at the data points is included in Appendix B. A discussion of the wetlands and other waters is presented below, and wetland delineation maps are presented in Figure 3 and Appendix C.

Table 2. Waters of the U.S.

Wetland Type	Acreage
Wetlands	
Seasonal Wetland	0.175
Seasonal Wetland Swale	0.010
Other Waters	
Stock Pond	0.121
Total	**0.306**

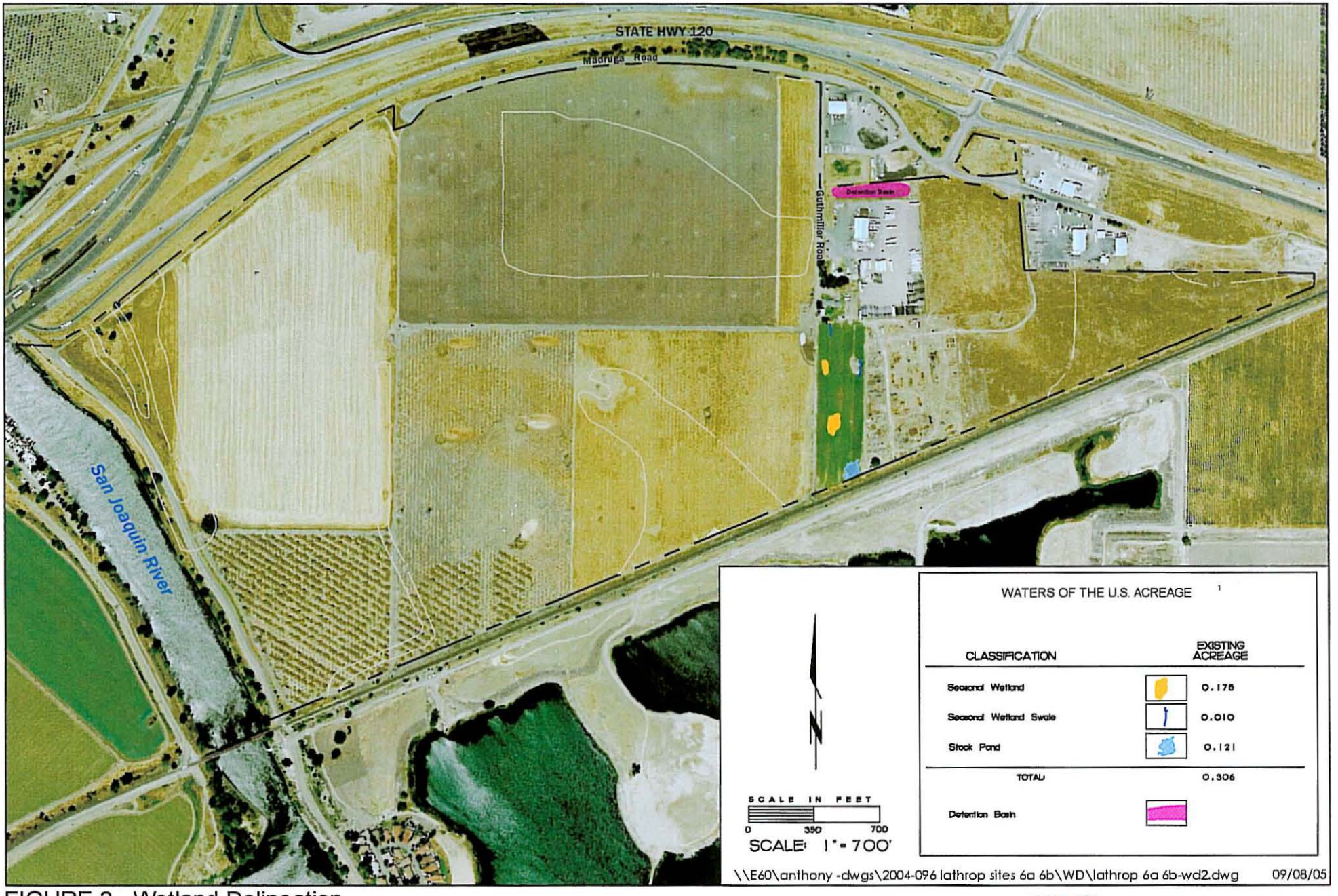


FIGURE 3. Wetland Delineation

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3.1 Jurisdictional Wetlands

3.1.1 Seasonal Wetland

Seasonal wetlands are ephemerally wet due to accumulation of surface runoff and rainwater within low-lying areas. Inundation periods tend to be relatively short and they are commonly dominated by non-native annual, and sometimes perennial, hydrophytic species. Plant species identified within the seasonal wetland include bentgrass (*Agrostis avenacea*), Bermuda grass, and rose clover (*Trifolium hirtum*).

Wetland hydrology indicators observed within the seasonal wetlands on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field surveys was conducted. Within seasonal wetland features, these indicators are generally only observable during the wet season and early in the growing season.

The soil matrix color within the seasonal wetland was 10YR4/1 without redoxmorphic (redox) features (i.e., mottles). The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetlands were of high chroma colors including 10YR3/2 (without redox features).

3.1.2 Seasonal Wetland Swale

These are linear wetland features that do not exhibit an ordinary high water mark. The seasonal wetland swale is located in the southern central portion. Plants species identified within the seasonal wetland swale include barnyard grass (*Echinochloa crusgalli*) and Bermuda grass.

Wetland hydrology indicators observed within the seasonal wetland swales on-site include watermarks. Other hydrologic indicators (i.e., soil saturation and inundation) were not observed due to the time of year that this field survey was conducted.

The soil matrix color within the seasonal wetland swale was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the seasonal wetland swale were of high chroma colors including 10YR3/2 (without redox features).

3.2 Other Waters

3.2.1 Stock Pond

There is a stock pond located in the southern central portion of the irrigated pasture within the project site. Vegetation within the stock pond included predominately water primrose (*Ludwigia peploides* var *peploides*) and an algal bloom.

Wetland hydrology indicators observed within the stock pond on-site include inundation (>12 inches) and soil saturation.

The soil matrix color within the stock pond was 10YR4/1 without redox features. The soils were determined to be hydric based on the low chroma colors and containing listed hydric inclusions. Soil matrix colors in upland areas adjacent to the stock pond were high chroma colors including 10YR4/2 (without redox features).

4.0 INTERSTATE COMMERCE

The San Joaquin River is located along the western side of the project site and is considered navigable waters. The project site is adjacent to the San Joaquin River by a levee. Thus, the seasonal wetlands, seasonal wetland swales, and stock ponds on-site should be considered connected with and/or adjacent to a Waters of a U.S., and would therefore be subject to interstate and/or foreign commerce.

5.0 CONCLUSION

A total of 0.306 acre of potentially jurisdictional waters of the U.S. has been mapped on-site. These acreages represent a calculated estimation of the jurisdictional area within the project site, and are subject to modification following the Corps verification process. Fill within jurisdictional features would require permitting pursuant to Section 404 and 401 of the federal Clean Water Act.

6.0 REFERENCES

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LIST OF APPENDICES

Appendix A. Routine Wetland Determination Forms

Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

APPENDIX A

Routine Wetland Determination Forms

ECORP Consulting, Inc.
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ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 6a + 6b Date: 08-15-05 Sample Point: 01N

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain:

Atypical Situation? Yes ☐ No ☒ Explain:

Is this a potential Problem Area? Yes ☐ No ☒ Explain:

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☐ No ☒

	Dominant Species	Ind. Status	Stratum	Rel. % Cover		Dominant Species	Ind. Status	Stratum	Rel. % Cover
1)	Tri hir	N/L	H	34.8	5)				
2)	Agr ave	FACW	H	34.8	6)				
3)					7)				
4)					8)				

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments:

HYDROLOGY — WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes,

Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: _____ (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other

Comments: no 1° or 2° indicators

SOILS — HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 166 Grangeville fine sandy loam, partially drained 0-2% slopes Drainage Class: partially drained

Taxonomy [Subgroup]: Thermic - Fluvaquentic - Haploxerolls Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other

Inclusions [Series/Phase]: Merrill, Columbia, Dello, Egbert On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
A	A	10YR 4/2	—	—	sandy

Comments:

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the parameters

General comments:

Wetland Type:

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Tri hir	40	34.8
Cyn dac	35	30.4
Agr ave	40	34.8
TOTAL SUM (Σ) =	115	**100%**

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other _____	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Tri hir	34.8	34.8		
Agr ave	34.8	69.6		
TOTAL SUM (Σ) =	**100%**			

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ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 60 + 66 Date: 08-15-05 Sample Point: 02

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: S 3 T 2S R 6E

Do normal environmental conditions exist site? Yes ☐ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☐ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☐ Explain: _____

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Lud pep	OBL		100	5)			
2)				6)			
3)				7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: _____

HYDROLOGY — WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: >12 (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: _____ (in.)

Primary Indicators: ☒ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: _____

SOILS — HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: 166 Grangeville fine sandy loam, partially drained 0-2% slopes Drainage Class: partially drained

Taxonomy [Subgroup]: thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: merritt, columbia, Dello, Egbert On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
>12	A	10YR 4/1	—	—	sandy

Comments: _____

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all three parameters

General comments: _____

Wetland Type: Stock pond

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Lud pep	80	100
TOTAL SUM (Σ) =	80	**100%**

***COVER*:**

Vegetation	75
Bare Ground	
Rocks	
Other algae bloom	25
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Lud pep	100	100		
TOTAL SUM (Σ) =	100%			

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ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 + 66 Date: 08-15-05 Sample Point: 03N

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: S 3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☒ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Agr ave	FACW	H	36.4	5)			
2) Tri hir	N/L	H	31.8	6)			
3) Cyn dac	FAC	H	31.8	7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments: _____

HYDROLOGY — WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: _____ (in.) Depth to free water in pit: _____ (in.) Depth to saturated soil: _____ (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: no 1° or 2° indicators

SOILS — HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 196 Manteca fine sandy loam, 0-2% slopes Drainage Class: well drained

Taxonomy [Subgroup]: Xeric Haplic Durixerolls Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: Traver On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
	A	10YR 3/2	—	—	sandy

Comments: _____

DECISION — WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet 2 of the 3 parameters

General comments: _____

Wetland Type: _____

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Agr ave	40	36.4
Tri hir	35	31.8
cyn dac	35	31.8
TOTAL SUM (Σ) =	110	100%

COVER:

Vegetation	100
Bare Ground	
Rocks	
Other ______	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Agr ave	36.4	36.4		
Tri hir	31.8	68.2		
Cyn dac	31.8	100		
TOTAL SUM (Σ) =	100%			

ECORP Consulting, Inc.

ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 + 66 Date: 08-15-05 Sample Point: 04

Applicant/Owner: Richland Communities Field Investigator(s): S. Rogers

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: 33 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☒ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Cynodon	FAC	H	71.4	5)			
2) Enh cru	FACW	H	28.6	6)			
3)				7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/1 = 100 %

Comments: _____

HYDROLOGY — WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: _____ (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: _____

SOILS — HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: 196 Marteca fine sandy loam, 0-2% slopes Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Haplic Durixeralls Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: +Rahern On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
16	A	10YR 4/1	—	—	sandy

Comments: _____

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 criteria

General comments: _____

Wetland Type: Seasonal wetland swale

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Ech cru	10	28.6
Cyn dac	25	71.4
TOTAL SUM (Σ) =	35	100%

COVER:	
Vegetation	35
Bare Ground	65
Rocks	
Other	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Cyn dac	71.4	71.4		
Ech cru	28.6	100		

TOTAL SUM (Σ) = 100%

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 & 66 Date: 08-15-05 Sample Point: 05N

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: S3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain:

Atypical Situation? Yes ☐ No ☒ Explain:

Is this a potential Problem Area? Yes ☐ No ☒ Explain:

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☒ No ☐

	Dominant Species	Ind. Status	Stratum	Rel. % Cover		Dominant Species	Ind. Status	Stratum	Rel. % Cover
1)	Agr dac	FACW	H	36.4	5)				
2)	Cyn dac	FAC	H	31.8	6)				
3)	Tri hir	N/L	H	31.8	7)				
4)					8)				

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments:

HYDROLOGY — WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes,

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other

Comments:

SOILS — HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 196 Manteca fine sandy loam, 0-2% slope Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Haplic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other

Inclusions [Series/Phase]: trahern On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
6	A	10YR 3/2	—	—	

Comments:

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Does not meet hydrology or soils parameters

General comments:

Wetland Type:

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
unk A	40	36.4
Cyn dac	35	31.8
Tri hir	35	31.8
TOTAL SUM (Σ) =	110	**100%**

COVER:

Vegetation	
Bare Ground	
Rocks	
Other	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
unk A	36.4	36.4		
Cyn dac	31.8	68.2		
Tri hir	31.8	100		
TOTAL SUM (Σ) =	**100%**			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 + 66 Date: 05-15-05 Sample Point: 66

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: 33 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain:

Atypical Situation? Yes ☐ No ☒ Explain:

Is this a potential Problem Area? Yes ☐ No ☒ Explain:

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

	Dominant Species	Ind. Status	Stratum	Rel. % Cover		Dominant Species	Ind. Status	Stratum	Rel. % Cover
1)	Cyn dac	FAC	H	58.8	5)				
2)	Tri hir	N/L	H	23.5	6)				
3)	Agr ave	FACW	H	17.6	7)				
4)					8)				

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/3 = 66 %

Comments:

HYDROLOGY

WETLAND HYDROLOGY? Yes ☒ No ☐

Recorded Data: Yes ☐ No ☒ If yes,

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☒ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other

Comments:

SOILS

HYDRIC SOILS? Yes ☒ No ☐

Series/Phase: 196 Mantece fine sandy loam, 0-2% slope Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Haplic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other

Inclusions [Series/Phase]: Tracy On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
6	A	10YR 4/1	—	—	sandy

Comments:

* DECISION *

WETLAND / WATERS DETERMINATION? Yes ☒ No ☐

Rationale: Meets all 3 parameters

General comments:

Wetland Type: Seasonal wetland

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Ags ave	15	17.6
Cyn dac	50	58.8
Tri hir	20	23.5
TOTAL SUM (Σ) =	85	**100%**

COVER:

Vegetation	85
Bare Ground	15
Rocks	
Other _____	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Cyn dac	58.8	58.8		
Tri hir	23.5	82.3		
Ags ave	17.6	100		
TOTAL SUM (Σ) =	**100%**			

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ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 6a + 6b Date: 08-15-05 Sample Point: 07N

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: irrigated pasture

Quad(s): Lathrop Section/Township/Range: §3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain:

Atypical Situation? Yes ☐ No ☒ Explain:

Is this a potential Problem Area? Yes ☐ No ☒ Explain:

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☒ No ☐

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Agr ave	FACW	H	33.3	5)			
2) Cyn dac	FAC	H	33.3	6)			
3) Tri hir	N/L	H	33.3	7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 3/3 = 100 %

Comments:

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes,

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other

Comments: no 1° or 2° indicators

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 96 Manteca fine sandy loam, 0-2% Slope Drainage Class: well drained

Taxonomy [Subgroup]: Thermic Haplic Durixeralfs Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other

Inclusions [Series/Phase]: Irahern On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
6	A	10YR 3/2	—	—	Sandy

Comments:

* DECISION *

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet all of the parameters

General comments:

Wetland Type:

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Agr ave	35	33.3
cyn dac	35	33.3
Tri hir	35	33.3
TOTAL SUM (Σ) =	105	**100%**

COVER:

Vegetation	1000
Bare Ground	
Rocks	
Other	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Agr ave	33.3	33.3		
cyn dac	33.3	66.6		
Tri hir	33.3	99.9		
TOTAL SUM (Σ) =	**100%**			

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ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 + 66 Date: 08-15-05 Sample Point: 08N

Applicant/Owner: Richland Communities Field Investigator(s): S. Roper

County: San Joaquin State: CA Plant Community: grassland

Quad(s): Lathrop Section/Township/Range: S3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☒ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☐ No ☒

	Dominant Species	Ind. Status	Stratum	Rel. % Cover		Dominant Species	Ind. Status	Stratum	Rel. % Cover
1)	Pop fre	FAC+*	T	56.25	5)				
2)	Cyn dac	FAC	H	18.75	6)				
3)	Bro hor	FACU	H	12.5	7)				
4)	Hol vir	N/L	H	12.5	8)				

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 2/4 = 50 %

Comments: _____

HYDROLOGY — WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: _____ (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: no 1° or 2° indicators

SOILS — HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 166 Grangeville fine sandy loam, partially drained 0-2% slope Drainage Class: partially drained

Taxonomy [Subgroup]: Thermic Fluvaquentic Haploxerolls Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: merritt, columbia, Dello, Egbert On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
8	A	10YR 3/3	—	—	sandy

Comments: _____

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the parameters

General comments: _____

Wetland Type: _____

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Boo hor	10	12.5
Pop fre	45	56.25
Hol vir	10	12.5
Cyn dac	15	18.75
TOTAL SUM (Σ) =	80	**100%**

COVER:

Vegetation	80
Bare Ground	20
Rocks	
Other	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Pop fre	56.25	56.25		
Cyn dac	18.75	75		
Boo hor	12.5	87.5		
Hol vir	12.5	100		
TOTAL SUM (Σ) =	**100%**			

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62 & 66 Date: 12-8-05 Sample Point: 9N

Applicant/Owner: Richland Communities Field Investigator(s): S. Stocker

County: San Joaquin State: CA Plant Community: _____

Quad(s): Lathrop Section/Township/Range: S3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☒ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION

HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Lon arv	N/L	H	50	5)			
2) Cyn dac	FAC	H	30	6)			
3)				7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/2 = 50 %

Comments: _____

HYDROLOGY

WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: — (in.) Depth to free water in pit: — (in.) Depth to saturated soil: — (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: no 1° or 2° indicators

SOILS

HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: Delhi clay loam, drained, 0-2% slope overwashed Drainage Class: poorly drained

Taxonomy [Subgroup]: Thermic Typic Psammaquents Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: columbia, merritt, egbert On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
16	A	7.5YR 3/2	—	—	—

Comments: _____

* DECISION *

WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the criteria

General comments: _____

Wetland Type: _____

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Con arv	25	50
Cir spe	10	20
Cyn dac	15	30
TOTAL SUM (Σ) =	50	100%

COVER:	
Vegetation	50
Bare Ground	50
Rocks	
Other	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Con arv	50	50		
Cyn dac	30	80		

TOTAL SUM (Σ) = 100%

ECORP Consulting, Inc.

ENVIRONMENTAL CONSULTANTS

ROUTINE WETLAND DELINEATION

Project/Site: South Lathrop 62566 Date: 12-8-05 Sample Point: 10N

Applicant/Owner: Richland Communities Field Investigator(s): S. Stoker

County: San Joaquin State: CA Plant Community: _____

Quad(s): Lathrop Section/Township/Range: S3 T2S R6E

Do normal environmental conditions exist site? Yes ☒ No ☐ If no, explain: _____

Atypical Situation? Yes ☐ No ☒ Explain: _____

Is this a potential Problem Area? Yes ☐ No ☒ Explain: _____

VEGETATION — HYDROPHYTIC VEGETATION? Yes ☐ No ☒

Dominant Species	Ind. Status	Stratum	Rel. % Cover	Dominant Species	Ind. Status	Stratum	Rel. % Cover
1) Cyp dac	FAC	H	50	5)			
2) Conarv	N/L	H	25	6)			
3) Cir spe	–	H	25	7)			
4)				8)			

Percentage of dominant species that are OBL, FACW, and/or FAC [excluding FAC-]: 1/3 = 33 %

Comments: _____

HYDROLOGY — WETLAND HYDROLOGY? Yes ☐ No ☒

Recorded Data: Yes ☐ No ☒ If yes, _____

Depth of surface water: – (in.) Depth to free water in pit: – (in.) Depth to saturated soil: – (in.)

Primary Indicators: ☐ Inundated ☐ Saturated in Upper 12 in. ☐ Water Marks ☐ Drift Lines ☐ Sediment Deposits ☐ Drainage Patterns in Wetland:

Secondary Indicators (2 or more required):

☐ Oxidized Root Channels in Upper 12 in. ☐ Water-stained Leaves ☐ Local Soil Survey Data ☐ FAC-Neutral Test ☐ Other _____

Comments: no 1° or 2° indicators

SOILS — HYDRIC SOILS? Yes ☐ No ☒

Series/Phase: 148 Dello clay loam, drained, 0-2% slope overwashed Drainage Class: poorly drained

Taxonomy [Subgroup]: Thermic Typic Psammaquents Confirm Map Type: Yes ☐ No ☒

☐ Histosol ☐ Histic Epipedon ☐ Sufidic Odor ☐ Aquic Moisture Regime ☐ Reducing Conditions ☐ Gleyed/Low Chroma Colors ☐ Concretions

☐ High Organic Content in Surface Layer in Sandy Soils ☐ Organic Streaking in Sandy Soils ☐ Listed on Hydric Soils List ☐ Other _____

Inclusions [Series/Phase]: Columbia, merritt, egbert On Hydric Soils List: Yes ☒ No ☐

Depth (in.)	Horizon	Matrix Color	Mottle Color	Mottle (Abund/Contrast/Size)	Texture, Concretions, Structure
10	A1	7.5YR 3/2	–	–	

Comments: _____

* DECISION * — WETLAND / WATERS DETERMINATION? Yes ☐ No ☒

Rationale: Does not meet any of the parameters

General comments: _____

Wetland Type: _____

HERBACEOUS COVER / DOMINANCE WORK SHEET

Species Observed	Actual Cover	Relative Cover
Cyn dac	40	50
Con arv	20	25
Cir spe	20	25
TOTAL SUM (Σ) =	80	**100%**

COVER:

Vegetation	80
Bare Ground	20
Rocks	
Other ______	
TOTAL =	*100%*

Species (Descending Order)	Relative Cover	Cumulative Cover	Indicator Status	Dominants
Cyn dac	50	50		
Con arv	25	75		
Cir spe	25	100		
TOTAL SUM (Σ) =	100%			

APPENDIX B

Plant Species Observed at Data Point Locations

Attachment B – Dominant Plant Species at the Lathrop 6a and 6b Project Area December, 2004 and August 2005.

Abbr.	Scientific Name	Common Name	Indicator Status
AGR AVE	*Agrostis avenacea*	Bentgrass	FACW
BRA spe.	*Brassica species*	Mustard	N/L
BRO HOR	*Bromus hordeaceus*	Soft brome	FACU-
CEN SOL	*Centaurea solstitialis*	Yellow star-thistle	N/L
CIR VUL	*Cirsium vulgare*	Bull thistle	FAC
CON ARV	*Convolvulus arvensis*	Morning glory	N/L
CYN DAC	*Cynodon dactylon*	Bermuda grass	FAC
ECH CRU	*Echinochloa crusgalli*	Barnyard grass	FACW
HEM PUN	*Hemizonia pungens*	Common tarweed	FAC
HOL VIR	*Holocarpha virgata*	Sticky tarweed	N/L
LUD PEP	*Ludwigia peploides var peploides*	Water primrose	OBL
LUP spe.	*Lupinus species*	Lupine	N/L
PIC ECH	*Picris echioides*	Bristly oxtongue	FAC
POP FRE	*Populus fremontii*	Fremont's cottonwood	FAC+*
QUE LOB	*Quercus lobata*	Valley oak	FACU
TRI HIR	*Trifolium hirtum*	Rose clover	N/L
TRI spe.	*Trifolium species*	Clover	N/L

Indicator Status Codes
OBL = Obligate Wetland; occur almost always (estimated probability >99%) under natural conditions in wetlands.
FACW = Facultative Wetland; usually occur in wetlands (estimated probability 67%-99%) under natural conditions in wetlands.
FAC = Facultative; equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
FACU = Facultative Upland; usually occur in non-wetlands (estimated probability 67%-99%).
UPL = Obligate Upland; occur almost always (estimated probability >99%) in non-wetlands in the region specified.
N/L = Not Listed.
NI = No indicator was recorded for those species for which insufficient information was available to determine a status.
-- = May or may not occur in wetlands depending upon species.
A positive (**+**) sign indicates a frequency toward the higher (more frequently found in wetlands) end of the facultative categories.
A negative (**-**) sign indicates a frequency toward the lower (less frequently found in wetlands) end of the facultative categories.
An asterisk (*) indicates a tentative assignment based upon limited information or conflicting review.

APPENDIX C

Wetland Delineation

PROJECT NAME: SOUTH LATHROP 6A & 6B - WETLAND DELINEATION

Stock Pond	Existing Acreage	Seasonal Wetland	Existing Acreage	Seasonal Wetland Swale	Existing Acreage
SP-1	0.121	SW-1	0.002	SWS-1	0.005
Total	0.121	SW-2	0.048	SWS-2	0.005
		SW-3	0.125	**Total**	0.010
		Total	0.175		

3 PARAMETER SAMPLE POINT		GPS COORDINATES LAT/LONG		
△	**01N**	37.78378234	/	-121.28968440
△	**02**	37.78371374	/	-121.28962099
△	**03N**	37.78526796	/	-121.28948885
△	**04**	37.78520629	/	-121.28946902
△	**05N**	37.78422642	/	-121.28975566
△	**06**	37.78431818	/	-121.28988732
△	**07N**	37.78561687	/	-121.29013566
△	**08N**	37.78368649	/	-121.28927556
△	**09N**	37.78885784	/	-121.29711306
△	**10N**	37.78850182	/	-121.29809548

WATERS OF THE U.S. ACREAGE [1]

CLASSIFICATION	EXISTING ACREAGE
WETLANDS:	
Seasonal Wetland	0.175
Seasonal Wetland Swale	0.010
OTHER WATERS:	
Stock Pond	0.121
TOTAL:	0.306

△02 Three Parameter Sample Point (Wetland)

△01N Three Parameter Sample Point (Upland)

Detention Basin

NOTES

Gross project acreage: +/- 277 acres

Base data provided by: McKay and Somps

Aerial source: Air Photo USA, November, 2002

Topographic data provided by: USGS, LATHROP QUAD

Boundary Source: APN, San Joaquin County.

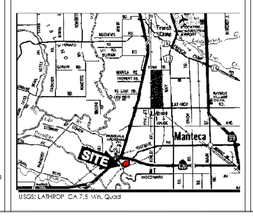
This exhibit depicts information and data produced in strict accord with the U.S. Army Corps of Engineers wetland delineation methods described in the 1987 Corps of Engineers Wetland Delineation Manual and conforms to specifications per the Sacramento Corps District. However, wetland boundaries have not been legally surveyed and may be subject to minor adjustments if exact locations are required.

SCALE IN FEET

0 150 300 600

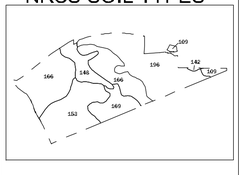
SCALE: 1"=300'

VICINITY MAP



USGS: LATHROP CA 7.5 Min. Quad

NRCS SOIL TYPES



160 BURBANK LOAMY COARSE SAND, PARTIALLY DRAINED, 0 TO 2 PERCENT SLOPES
142 DELHI LOAMY SAND, 0 TO 2 PERCENT SLOPES
151 FLORAY SILTY CLAY LOAM, PARTIALLY DRAINED, 0 TO 2 PERCENT SLOPES
159 GUARD CLAY LOAM, DRAINED, 0 TO 2 PERCENT SLOPES
166 GRANGEVILLE FINE SANDY LOAM, PARTIALLY DRAINED, 0 TO 2 PERCENT SLOPES
196 MANTECA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES

SOUTH LATHROP 6A & 6B

WETLAND DELINEATION

Subject to U.S. Army Corp of Engineer's verification

DATE: 08 SEPTEMBER 2005	REVISION:	PROJECT NO: 2004-096
DRAWN BY: CN/ET	SCALE: 1"=300'	FILE NAME: Lathrop 6a 6b-wd2.dwg
CHECKED BY:		LAYOUT: 30X25
WETLAND VERIFICATION LETTER DATE:		

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Inland Empire
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Northern California
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Building B, Ste 103
Santa Ana, CA 92701
Ph: (714) 648-0630

JOB NAME: SOUTH LATHROP 6A & 6B - WD
SCALE: 1"=300' MSL:
DATE: 08 SEPTEMBER 2005
REVISION:
FILE NAME: Lathrop 6a 6b-wd2.dwg

X:\2004-096 lathrop sites 6a 6b\WD\lathrop 6a 6bwd2.dwg

PROJECT NAME: SOUTH LATHROP 6A & 6B - WETLAND DELINEATION

APPENDIX D

Wetland Delineation Shape File (to be include with Corps submittal only)

APPENDIX E

Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

WETLAND DELINEATION

FOR

SOUTH LATHROP 6A & 6B

SAN JOAQUIN COUNTY, CALIFORNIA

November 10, 2005

Prepared for:

Richland Planned Communities

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Appendix B. Plant Species Observed at Data Point Locations

Appendix C. Wetland Delineation

Appendix D. Wetland Delineation Shape File (to be included with Corps submittal only)

Appendix E. Corps-Verified Wetland Map and Verification Letter (to be included in ECORP's master copy only)

APPENDIX A

Routine Wetland Determination Forms

APPENDIX B

Plant Species Observed at Data Point Locations

APPENDIX C

Wetland Delineation

APPENDIX D

Wetland Delineation Shape File (to be include with Corps submittal only)

Information Provided in Support of

Section 7 Consultation with the U.S. Fish and Wildlife Service

For

South Lathrop 6a and 6b

San Joaquin County, California

29 August 2008

Prepared For:
Richland Planned Communities

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Attachment B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment
Attachment C – Special-Status Plant Survey

INTRODUCTION

A Special-Status Species Assessment was prepared for the South Lathrop 6a and 6b project on 8 September 2006. The Special-Status Species Assessment is included as part of herein as Attachment A. Impacts to the following federally endangered (E) or threatened (T) species potentially occurring on the South Lathrop 6a and 6b project are covered through the San Joaquin Multiple Species Habitat Conservation and Open Space Plan (SJMSCP) Minimization Measures:

Invertebrates

- *Branchinecta lynchi* – vernal pool fairy shrimp (T)
- *Desmocerus californicus dimorphus* – valley elderberry longhorn beetle (T)
- *Lepidurus packardi* – vernal pool tadpole shrimp (E)

Fish

- *Hypomesus transpacificus* – delta smelt (T)
- *Oncorhynchus mykiss* – Central Valley steelhead (T)
- *Oncorhynchus tshawytscha* – Central Valley spring-run chinook salmon (T)
- *Oncorhynchus tshawytscha* – winter-run chinook salmon, Sacramento River (E)

Amphibians

- *Ambystoma californiense* – California tiger salamander (T)
- *Rana aurora draytonii* – California red-legged frog (T)

Reptiles

- *Thamnophis gigas* – giant garter snake

Birds

- *Haliaeetus leucocephalus* – bald eagle (T)

The federally listed species which has the potential to occur at the South Lathrop 6a and 6b project site, which is not covered under the SJMSCP, is the riparian brush rabbit (*Sylvilagus bachmani riparius;* federally endangered). Historically, they have been found in the San Joaquin Valley riparian areas. The riparian habitat at the western perimeter may represent suitable habitat for riparian brush rabbit. An assessment of habitat for the riparian brush rabbit was conducted and is included herein as Attachment B.

Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). ECORP conducted determinate special-status plant surveys for the project site on 30 May and 7 June 2008. No special-status plants were observed on-site during the 2008 field survey. The Special-Status Plant Survey Report is included herein as Attachment C.

The purpose of this document is to review the proposed South Lathrop 6a and 6b project to evaluate to what extent the proposed action may affect the endangered riparian brush rabbit (*Sylvilagus bachmani riparius*).

PROJECT PROPONENT

Applicant:

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Address: Richland Planned Communities
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Roseville, California 95661
Phone: (916) 782-3330
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Agent:

Attn: Michelle Archuleta
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2525 Warren Drive
Rocklin, California 95677
Phone: (916) 782-9100
Fax: (916) 782-9134

CONSULTATION TO DATE

There has been no consultation to date with the U.S. Fish and Wildlife Service (USFWS) regarding the South Lathrop 6a and 6b project and riparian brush rabbit (RBR).

DESCRIPTION OF THE PROPOSED ACTION

The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). This site corresponds to a portion of Section 2 and an unsectioned portion of Township 2 South and Range 6 East (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of the Interior, Geological Survey 1978). The proposed South Lathrop 6a and 6b project (Figure 2. *Proposed Impact Plan*) consists of a 277-acre light industrial, office, and commercial development in south-central San Joaquin County within the City of Lathrop.

Development of the South Lathrop 6a and 6b project will occur over approximately 10 years, with most activities associated with ground disturbance occurring during the first three years. Ground disturbance will be limited to the 277-acre development footprint situated east of the San Joaquin River. Only minor construction activity is anticipated in the riparian area located east of the San Joaquin River. Construction activities include the installation of an outfall structure and a trail system.

The area of the project bounded by the San Joaquin River levee road on the east, the San Joaquin River to the west, the railroad/railroad bridge to the south, and Highway 120 to the north, represents the only potentially suitable habitat for riparian brush rabbit on-site. Riparian brush rabbits are generally known to inhabit dense, brushy areas of Valley riparian forests marked by extensive thickets of understory vegetation such as California wild rose, California blackberries (*Rubus ursinus)*, and willows. The habitat within this narrow strip is highly variable

in vegetative composition. The approximate northern half of this area is predominantly non native annual grasslands while the southern half is a mix of oak (*Quercus* spp.), cottonwood (*Populus* spp.), and willow riparian woodland with a variable understory including patches of non-native annual grassland, California wild rose (*Rosa californica)* , stinging nettles (*Urtica dioica*), and willow scrub (*Salix* spp.). Although the riparian habitat on-site has been disturbed and is subject to ongoing disturbances including flooding, levee maintenance activities (e.g., rip rap placement), and invasion and control of exotic plant species (e.g., weed abatement for non-native annual grasses and forbs), the on-site area occurring on the interior levee side between the San Joaquin River and the levee road, provides potentially suitable riparian habitat for riparian brush rabbit.

Conservation Measures

The following is a description of the conservation measures that have been incorporated into the project to avoid, minimize, and compensate for potential impacts associated with the riparian brush rabbit.

Public Education and Permanent Signage

Educational materials regarding the riparian habitat and the riparian brush rabbit will be provided annually for businesses located within the South Lathrop 6a and 6b project area. This material will discuss the species' biology, habitat, endangered status under the Act, threats to the rabbits, and any other activities that could negatively impact the riparian brush rabbit or this species' habitat. Signs will be posted in the riparian area along the trail that will provide information to the public regarding the protected nature of the riparian habitat (e.g., not allowing pets to enter riparian areas).

Sensitivity Training

A worker training program for construction and other on-site personnel will be conducted before groundbreaking at the project site. The program will consist of a brief presentation by the on-site biologist who will explain endangered species concerns to all contractors, their employees,

and agency personnel involved in the project. The program will include a description of the riparian brush rabbit, their habitat needs, an explanation of their protection under the Endangered Species Act, and a description of the measures being taken to reduce effects to the species during project construction and implementation.

Avoidance of Nests

During the breeding season (December through May), project construction activities will avoid any identified active riparian brush rabbit nests with a buffer of at least 152 m (500 ft). If identified, the nest areas will be mapped and marked by brightly colored markers or other easily visible, temporary fencing. Protocol for presence/absence surveys to identify potentially nesting rabbits, will be developed through correspondence with the USFWS.

Temporary Signage

During construction (not including construction activities for the outfall and trails in the riparian area), the riparian area will be protected with high-visibility fencing that is at least 1.5 m (5 ft) tall will be placed to prevent encroachment of construction personnel and equipment. If plastic netting is used for the fencing material, the holes will be of a size such that riparian brush rabbits are unable to become entrapped in it. To allow riparian brush rabbits to pass through the fence, breaks in the fencing at least 0.61 m (2 ft) wide will be placed every 3.05 m (10 ft). The fencing will be inspected before the start of each work day by the on-site biologist and maintained by the applicant until completion of the project. The fencing will be removed following completion of the project.

Signs that can be easily read from at least 6.1m (20 ft) away will be placed on the fencing to indicate riparian habitat that must be avoided by construction personnel.

Biological Monitoring

A qualified biologist will be on-site during all activities that could result in the take of a riparian brush rabbit, specifically, when the outfall and trail system are constructed. The biologist will be given the authority to stop any work that may result in take of listed species.

Entrapment Prevention

To prevent inadvertent entrapment of riparian brush rabbits, all excavated, steep-walled holes or trenches more than 0.61 m (2 ft) deep and within 152 m (500 ft) of the ESA will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. The holes and trenches will be inspected for trapped animals prior to being filled. If at any time a trapped riparian brush rabbit is discovered, the on-site biologist will be contacted to provide escape ramps, or assistance to allow the animal to escape, or the Service will be contacted for advice.

ACTION AREA

The Action Area has been defined as the entire project boundary (see Figure 1).

SPECIES ACCOUNTS AND STATUS OF THE SPECIES IN THE ACTION AREA

The riparian brush rabbit, one of eight subspecies found in California, was listed as endangered on March 24, 2000 (65 **FR** 8881). The species range includes the area west of the Cascade-Sierra crest from the Columbia River to the tip of Baja California (Williams and Basey 1986). Riparian brush rabbits are small, brownish rabbits similar to the desert cottontail (*Sylvilagus audubonii*), but can be distinguished from the desert cottontail, the by a smaller, more inconspicuous tail and short, uniformly-colored ears (no black tip). Adult riparian brush rabbits are about 11.8 to 14.8 inches long, and weigh approximately 17.6 to 28.2 ounces. Hind foot length is from 2.7 to 3.1 inches and ear from notch is from 2.7 to 3.2 (Orr 1940). When viewed from above, the riparian brush rabbit's cheeks protrude outward rather than being straight or

concave (Orr 1940). A detailed account of the species' biology and ecology can be found in the *Recovery Plan for Upland Species of the San Joaquin Valley, California* (Service 1998) (Valley Recovery Plan).

Life History and Habitat

The riparian brush rabbit breeding season occurs from December to May (Williams 1988, Basey 1990). Gestation is generally 27 days, with a litter size of approximately three or four, and females produce three to four litters during the season. On average, a female may produce nine to 16 young each year. This is a relatively high reproductive rate, it is still lower than many other cottontail species, and five out of six rabbits do not survive to the next breeding season (Mossman 1955, Chapman and Harman 1972). According to Davis (1936) and Orr (1940, 1942), riparian brush rabbits nest in shallow "forms" or cavities, natural or scraped out, approximately 3 to 6 inches deep, in the ground, usually beneath brushy cover. Riparian brush rabbits are not known to regularly use or dig burrows. The nest is probably lined with dry vegetation in which the riparian brush rabbits take cover.

Riparian brush rabbits live in the San Joaquin Valley within riparian areas characterized by large clumps of shrubs and vines, generally with sparse or no overstory of trees (Williams ad Basey 1986). Forests with closed canopies generally lack the sufficient understory of shrubs to meet the riparian brush rabbit's habitat requirements. Where dense low growing wild roses (*Rosa californica*), wild grape (*Vitis californica*), and blackberries (*Rubus ursinus*) are found in savanna-like settings, brush rabbits live in tunnels through the vines and shrubs.

Riparian brush rabbits appear to prefer a mix of roses, blackberries, marsh baccharis (*Baccharis pilularis)*. Sites occupied by riparian brush rabbits have more ground litter and rose bushes, and fewer willows when compared to sites occupied by desert cottontails. Presence of surface litter and the absence of willows in the understory signify areas of higher ground that are not flooded regularly or heavily (Williams and Basey 1986). Riparian brush rabbits have been found, however, in areas with willows.

Historical and Current Distribution

The riparian brush rabbit was historically distributed throughout the riparian forests that existed along portions of the San Joaquin River and its tributaries on the Valley floor, from Stanislaus County north to the Delta (Orr 1940).

By the mid-1980s, the riparian forest within the former range of the riparian brush rabbit had been reduced to a few small and widely scattered fragments, totaling about 5,189 acres. The Caswell Memorial State Park, 258.2 acres on the Stanislaus River in southern San Joaquin County, is one of the largest remaining fragments of suitable riparian forest (Warner 1984), and home to one of the three known extant populations of riparian brush rabbit (Williams and Basey 1986).

Riparian brush rabbits have been observed at Paradise Cut, the Mossdale Landing development, and at scattered locations along the San Joaquin River in the Tracy/Lathrop area. In 2002, a riparian brush rabbit controlled propagation program began and rabbits were released during 2002 to San Joaquin River National Wildlife Refuge. Monitoring is being conducted by the Endangered Species Recovery Program to track movement and survival of animals released at the San Joaquin Refuge in order to determine the success of the reintroduction program.

Reasons for Decline

Several factors have contributed to the decline of the riparian brush rabbit. In the mid-1800s, ferries operating on the San Joaquin River required a local source of fuel. Hundreds of miles of riparian forest were harvested to meet this need for fuel. Large dams constructed for irrigation and flood control on the major rivers of the Central Valley changed the hydrology of the ecosystem contributing to the destruction and fragmentation of the San Joaquin Valley riparian forest. More recently, riparian forests were converted to various urban and agricultural uses, and further degraded through a variety of human activities. By the mid-1980's the population had been reduced to only about 5.8 percent of its original extent (Larsen 1993).

Land within the floodplain of the San Joaquin River has been converted from shrub-dotted grassland to vineyards, orchards, and row crops, with attendant land clearing and leveling, and the building and maintenance of levees. Consequently, the small patches of shrub-covered upland that once provided refuge from flooding and predation generally do not exist (Williams and Basey 1986, Williams 1988).

Riparian Brush Rabbit in Action Area

A habitat assessment was conducted by ECORP Consulting, Inc on 19 October 2007 (see Attachment A). During the assessment, suitable habitat was identified as discussed above, however, no riparian brush rabbits were observed.

EFFECTS

Direct Effects

There are no anticipated direct effects to the riparian brush rabbit associated with the construction of the project.

Indirect, Interrelated, and Interdependent Effects

Indirect effects that are likely to occur as a result of the proposed project include the potential mortality of riparian brush rabbits from the direct predation caused by pets (cats and dogs) that enter the avoidance area.

Additionally, indirect effects are also likely to occur from people that are associated with the South Lathrop 6a and 6b commercial development that enter the riparian area and disturb riparian brush rabbits during the normal activities or during their breeding season.

The indirect effects from people and pets entering the avoidance area will also be reduced through the installation of signs prohibiting certain uses of the area.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in this biological assessment. Future Federal actions that are unrelated to the proposed project are not considered in this section, because they require separate consultation pursuant to Section 7 of the Act. An undetermined number of future land use conversions and routine agricultural practices are not subject to Federal authorization or funding and may alter the habitat or increase incidental take of riparian brush rabbit, and are, therefore, cumulative to the proposed project. Most of these future non-Federal projects are considered indirect effects of the proposed action and effects are addressed through the SJMSCP and *Intra-Service Biological and Conference Opinion*, which provides mitigation and minimization measures for 44 covered species and their habitats converted by activities covered under the SJMSCP.

Cumulative effects to the riparian brush rabbit by the continued development of agriculture, cities, industry, transportation, and water resources, are likely to result in loss of riparian and other habitats containing these species.

CONCLUSION AND DETERMINATION

The effects of the proposed action may adversely affect the riparian brush rabbit and thus require the implementation of effective conservation measures as described in the project description. The project includes avoidance, minimization, and conservation measures sufficient to offset the adverse effects of the proposed action to the riparian brush rabbit.

After assessing the current status of riparian brush rabbit, the environmental baseline for the action area, the effects of the proposed South Lathrop 6a and 6b project, and cumulative effects, it is the conclusion of this biological assessment that the proposed project is not likely to jeopardize the continued existence of the riparian brush rabbit.

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Williams, D.F. and G.E. Basey. 1986. Population status of the riparian brush rabbit (*Sylvilagus bachmani riparius*). California Dept. of Fish and Game, Sacramento, Wildlife Management Division, Nongame Bird and Mammal Section Rep., 21. pp.

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Figure 1. Project Site and Vicinity

Figure 2. Proposed Impact Plan

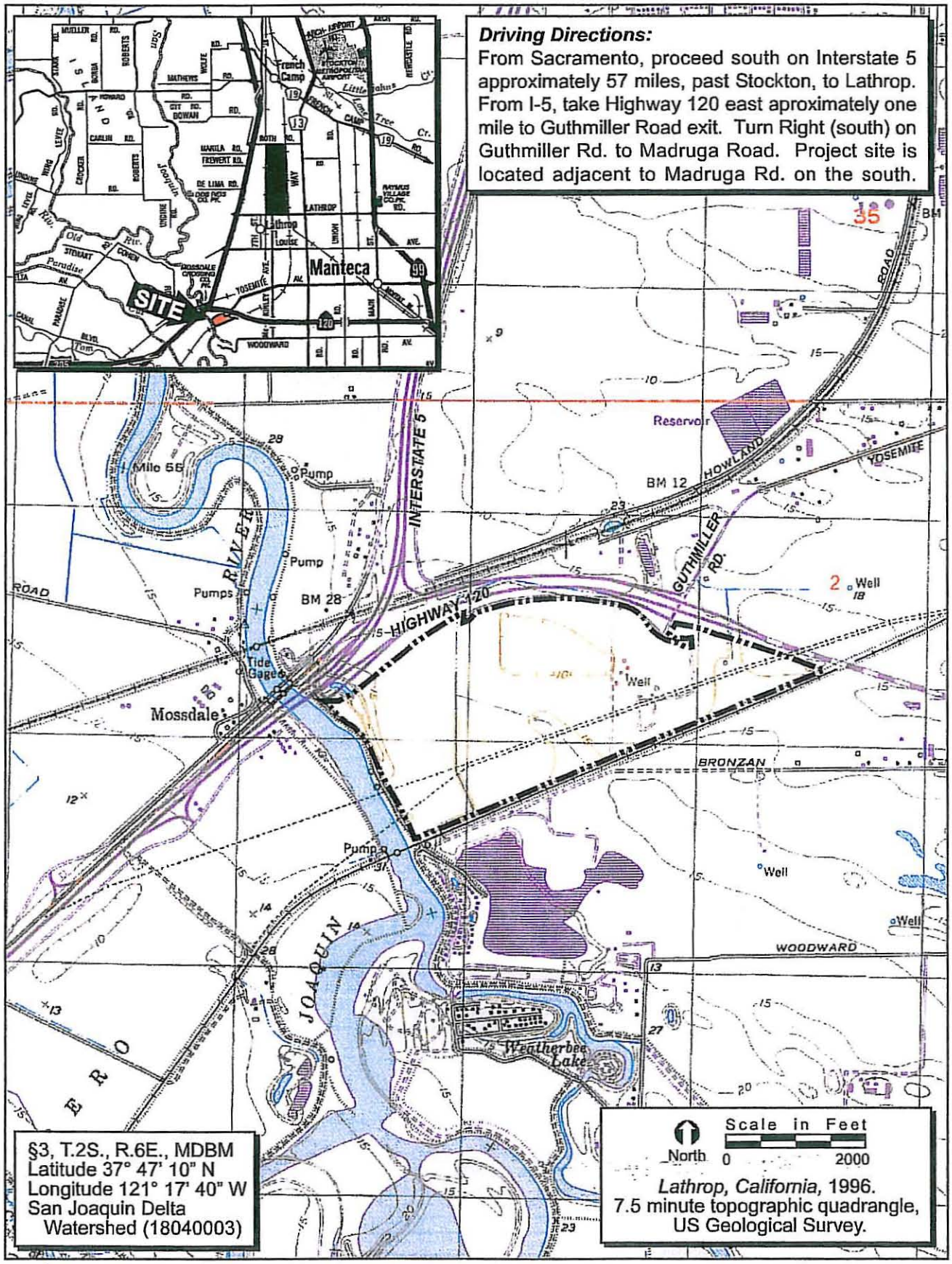
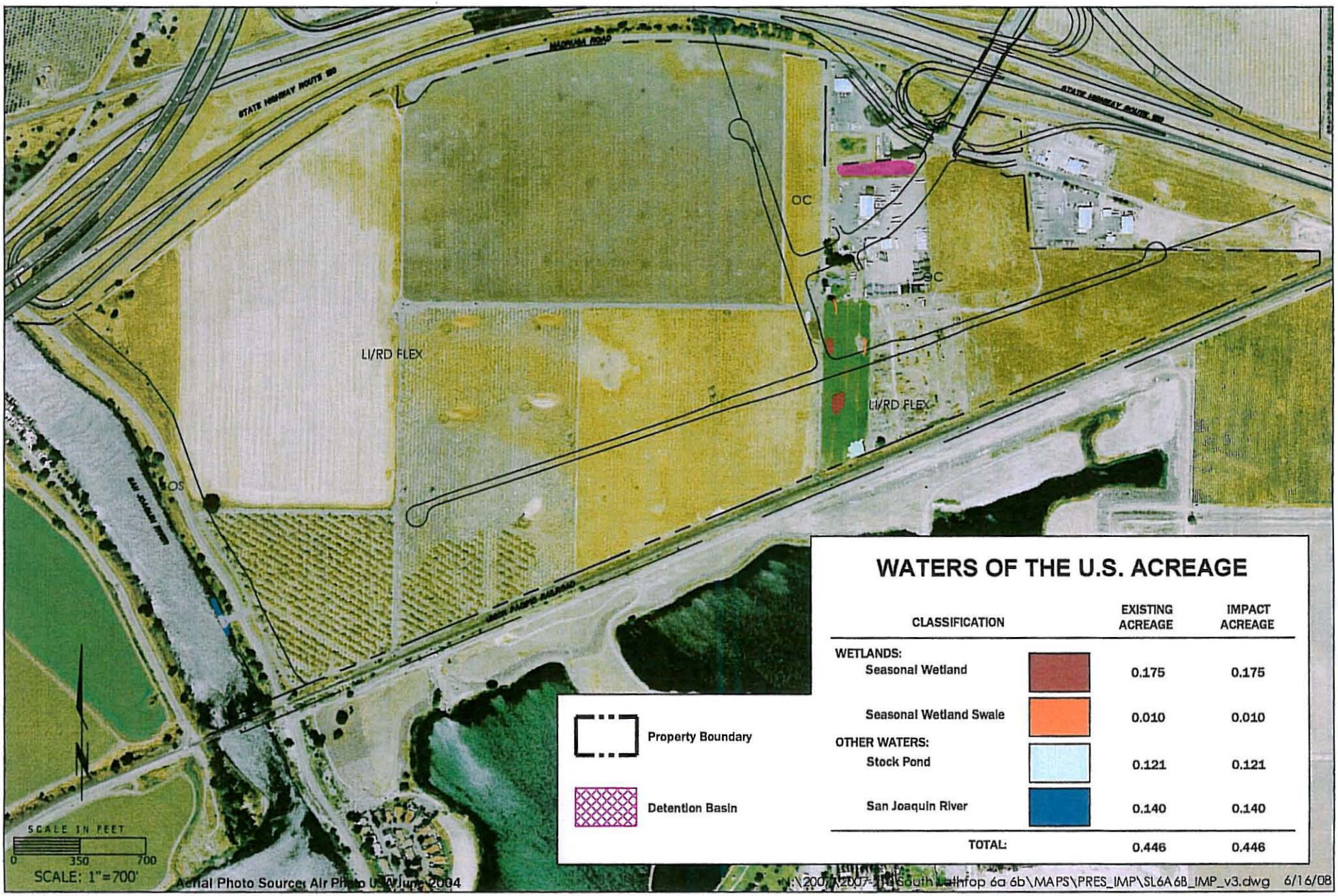


FIGURE 1. Project Site and Vicinity

2007-213 South Lathrop 6a & 6b

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS



WATERS OF THE U.S. ACREAGE

CLASSIFICATION	EXISTING ACREAGE	IMPACT ACREAGE
WETLANDS:		
Seasonal Wetland	0.175	0.175
Seasonal Wetland Swale	0.010	0.010
OTHER WATERS:		
Stock Pond	0.121	0.121
San Joaquin River	0.140	0.140
TOTAL:	0.446	0.446

FIGURE 2. Proposed Impact Plan

2007-213 South Lathrop 6a/6b

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

LIST OF ATTACHMENTS

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Attachment B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Attachment C – Special-Status Plant Survey

ATTACHMENT A

Special-Status Species Assessment

Special-Status Species Assessment

For

South Lathrop South Village

San Joaquin County, California

September 8, 2006

Prepared for:
Richland Planned Communities

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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Attachment A – Rarefind 2 Data Report

INTRODUCTION

On behalf of Richland Planned Communities, ECORP Consulting, Inc. (ECORP) has conducted a special-status species assessment of 277-acre South Lathrop South Village project site. The project site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1 – *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The purpose of this special-status species assessment is to assess the potential for occurrence of special-status plant and wildlife species, or their habitat, within the project site.

The conclusions and recommendations presented in this report are based upon limited office review and do not include site reconnaissance or species-specific field surveys. Determinate-level surveys were not conducted.

METHODOLOGY

Special-Status Species Assessment

For the purposes of this assessment, "special-status species" refers to those plant or wildlife species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;

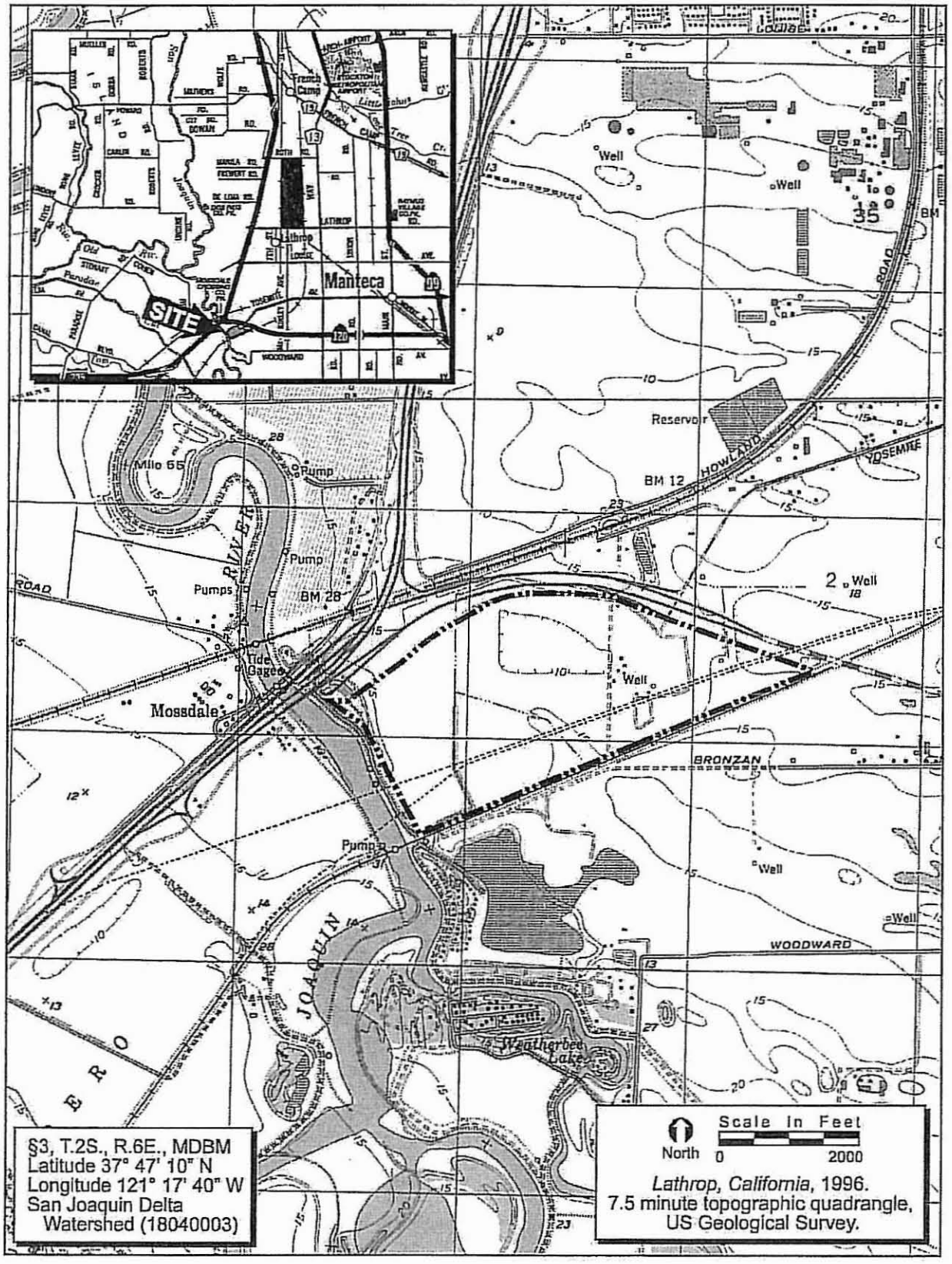

FIGURE 1. Project Site and Vicinity

2004-096 South Lathrop South Village

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- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are identified as a species of special concern by the California Department of Fish and Game (CDFG);
- Plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.);
- Fully protected in California in accordance with the Fish and Game Code of California, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes); or
- Are tracked by CDFG's Natural Diversity Database (CNDDB), but do not have any of the above-listed designations.

Background information was collected on the potential existence of the special-status species within or near the project site from a variety of sources including:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search for the "Lathrop, California" 7.5-minute quadrangle (CDFG 2003) (Attachment A);
- Species List for the "Lathrop, California" 7.5-minute quadrangle created by the U.S. Fish and Wildlife Service (USFWS) (USFWS 2006);
- California Native Plant Society's Inventory of Rare and Endangered Plants Record Search for the "Lathrop, California" 7.5-minute quadrangle (CNPS 2006);
- *Status of Rare, Threatened, and Endangered Animal and Plants of California 2000-2004* (CDFG 2005);
- *Fairy Shrimps of California's Puddles, Pools, and Playas* (Eriksen and Belk 1999);
- *Bird Species of Special Concern in California* (Remsen, Jr. 1978);
- *Amphibian and Reptile Species of Special Concern in California* (Jennings and Hayes 1994);
- *Mammalian Species of Special Concern in California* (Williams 1986);
- *California's Wildlife*, Volumes I-III (Zeiner, *et al.* 1988, 1990a, 1990b); and
- *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer, eds. 1988).

The special-status species assessment included a review of resource agency species lists, taxa-specific literature review, CNDDB query, previously conducted wetland delineation and an aerial photograph review. No site visit was conducted. The special-status species considered for this site are those that have a reasonable probability of occurring on-site under current site conditions. This assessment does not constitute determinate-level field surveys conducted according to agency-approved protocols.

RESULTS AND DISCUSSION

Existing Site Conditions

The site is comprised of relatively flat terrain and is situated at an elevation of approximately 5 to 15 feet above mean sea level. The majority of the project site is being used for agricultural practices (i.e., alfalfa (*Medicago sativa*), winter wheat (*Triticum aestivum*), and cattle grazing). The western portion is being utilized for alfalfa and winter wheat production, and an irrigated cattle pasture is located in the southern central portion of the project site. The vegetation within the irrigated pasture includes rose clover (*Trifolium hirtum*), Bermuda grass (*Cynodon dactylon*), barnyard grass (*Echinochloa crus-galli*), and birdsfoot trefoil (*Lotus corniculatus*). Riparian habitat is present along the western boundary of the site, adjacent to the San Joaquin River. Common vegetation in riparian corridors includes Fremont's cottonwood (*Populus fremontii*), valley oak (*Quercus lobata*), willow (*Salix* species), blue elderberry (*Sambucus mexicana*), and mugwort (*Artemesia douglasiana*). There are several buildings located within the project site including farmhouses and a number of commercial facilities on Guthmiller and Madruga Roads. The rest of the project site is ruderal grassland habitat. Vegetation within the ruderal grassland habitat includes yellow-star thistle (*Centaurea solstitialis*), telegraph weed (*Heterotheca grandiflora*), and common mallow (*Malva neglecta*).

A detention basin located north of a truck maintenance yard collects runoff from storm drains within the parking lot throughout the year. A stock pond, three seasonal wetlands, and two seasonal wetland swales are present in the cattle pasture.

According to the Soil Survey of San Joaquin County, California (U.S. Department of Agriculture, Soil Conservation Service 1992), seven soil units, or types, have been mapped within the project site (Figure 2 – *Natural Resource Conservation Service Soil Types*). These are: (109) Bisgani loam coarse sand, partially drained, 0 to 2 percent slopes, (142) Delhi loamy sand, 0 to 2 percent slopes, (148) Dello clay loam, drained, 0 to 2 percent slopes, overwashed, (153) Egbert silty clay loam, partially drained, 0 to 2 percent slopes, (166) Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes, (169) Guard clay loam, drained, 0 to 2 percent slopes, and (196) Manteca fine sandy loam, 0 to 2 percent slopes. Soil units (109), (148) and (153) contain listed hydric components, and all of the soil units except (109) and (142) may contain hydric inclusions (U.S. Department of Agriculture, Soil Conservation Service 1992).

The surrounding properties include agricultural, rural residential properties, and a gravel mine.

Special-Status Species

Based upon vegetation communities present on-site, current site conditions, and known species distributions, a list of potentially occurring special-status species has been developed for South Lathrop South Village (Table 1). CNDDB occurrences of special-status species in the vicinity of the project site are presented in Figure 3. There are currently no previously documented occurrences of special-status species within the site (CDFG 2003). Potentially occurring special-status species include three plants, one invertebrate, one reptile, sixteen birds, and five mammals.

Plants

Riparian habitat on the western boundary of the site represents potentially-suitable habitat for slough thistle (*Cirsium crassicaule*, CNPS 1B), Delta button celery (*Eryngium racemosum*, California endangered, CNPS 1B), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*, CNPS List 2). Occurrences of Delta button-celery and Wright's trichocoronis have been reported immediately adjacent to the northwest corner of the site (CDFG 2003).

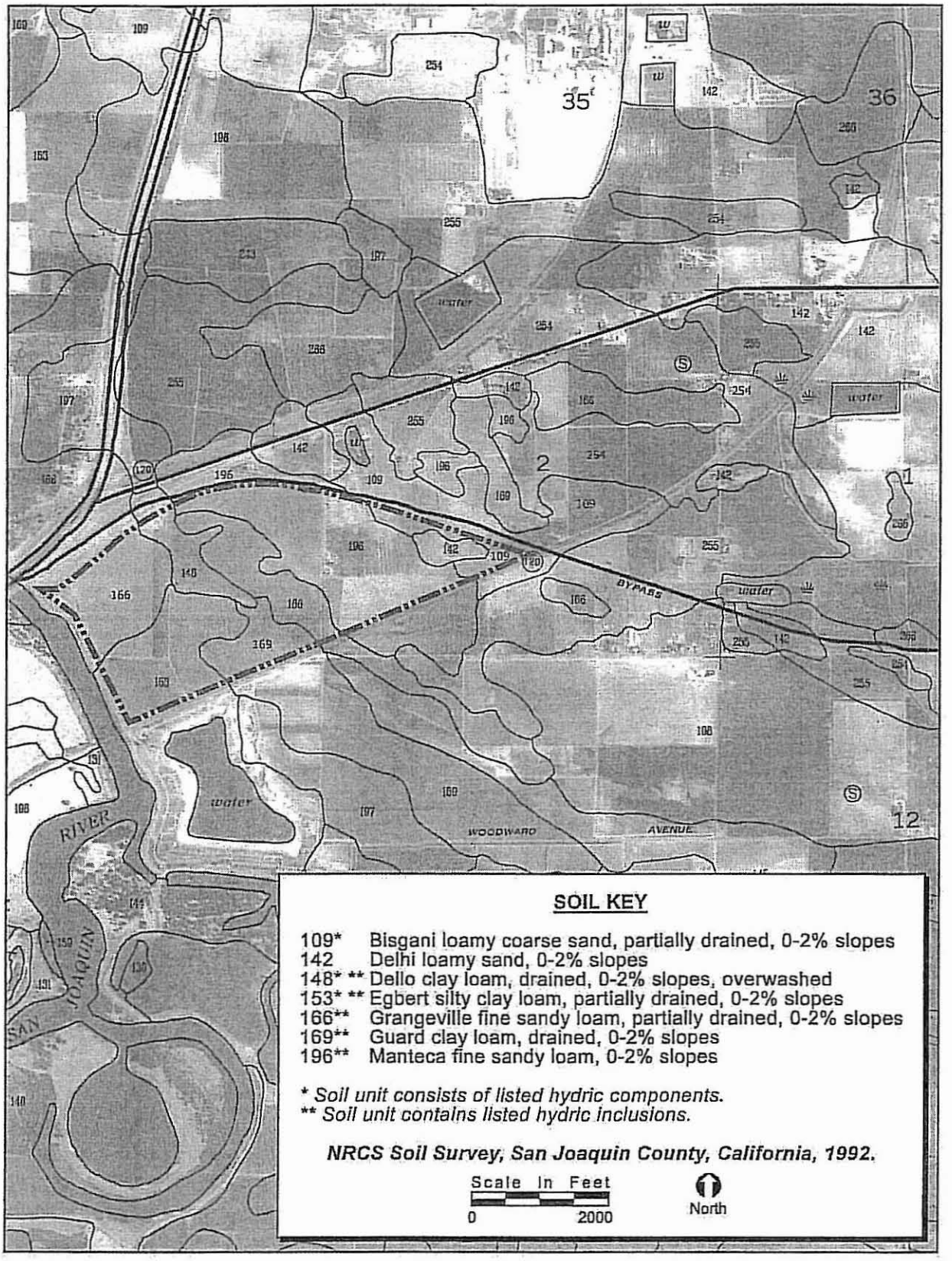


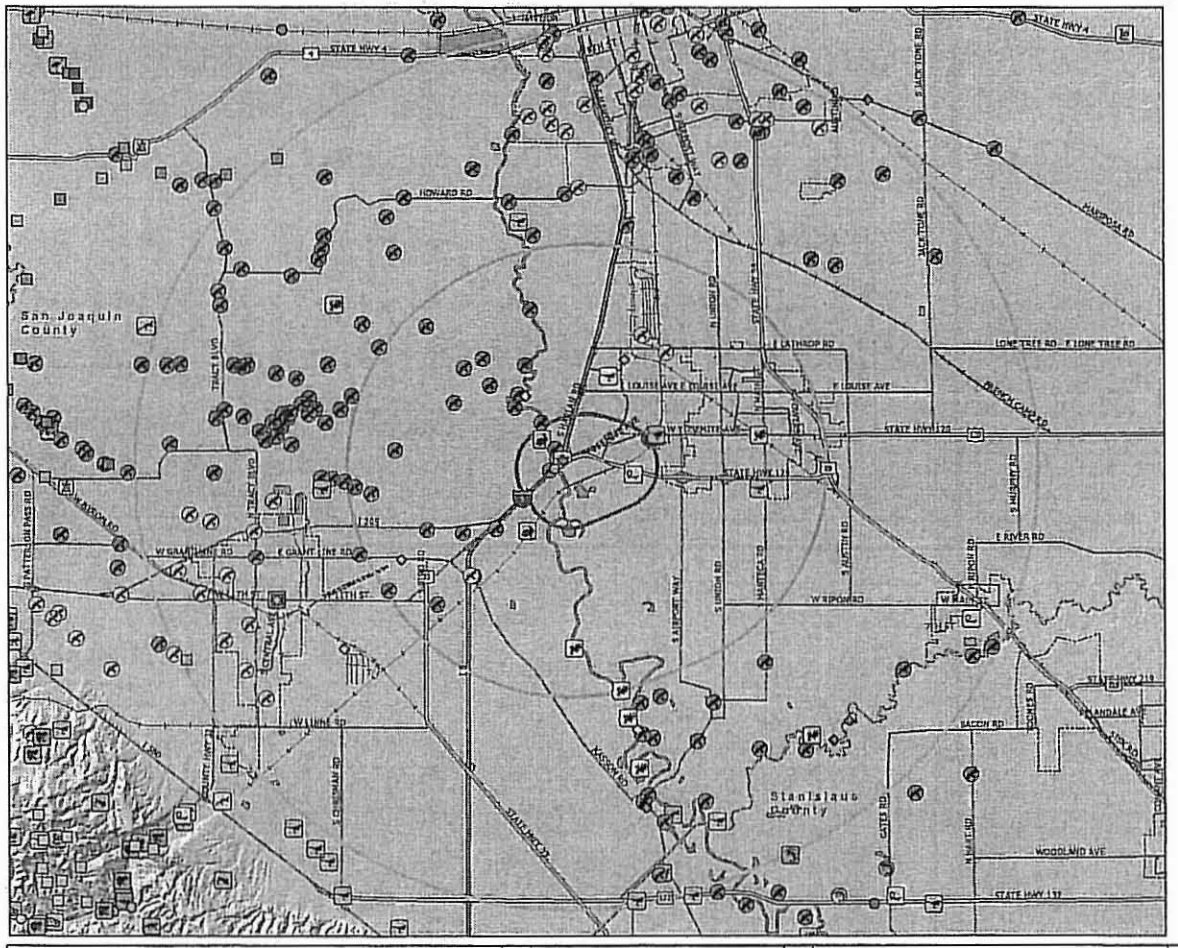
FIGURE 2. Natural Resources Conservation Service Soil Types

Table 1 - Potentially Occurring Special-Status Species

Common Name	Scientific Name	Federal Status	State Status	Other Status	Habitat Description	Approximate Survey
Plants						
Slough thistle	*Cirsium crassicaule*	-	-	1B	chenopod scrub, riparian scrub, marshes and swamps	May-August
Delta button celery	*Eryngium racemosum*	-	CE	1B	seasonally wet riparian	June-August
Wright's trichocoronis	*Trichocoronis wrightii* var. *wrightii*	-	-	2	alkaline (meadows, marsh, riparian, vernal pools)	May-September
Invertebrates						
Valley elderberry longhorn beetle	*Desmocerus californicus dimorphus*	FT	-	-	elderberry shrubs	any season
Reptiles						
Giant garter snake	*Thamnophis gigas*	FT	CT	-	ditches, sloughs, marshes	April-October
Birds						
Double-crested cormorant (rookery)	*Phalacrocorax auritus*	-	-	CSC	open water, riparian	April-July
Great blue heron (rookery)	*Ardea herodias*	-	-	CNDDB	rookery sites (marsh, riparian)	February-July
Great egret (rookery)	*Ardea alba*	-	-	CNDDB	rookery sites (marsh, riparian)	March-July
Snowy egret (rookery)	*Egretta thula*	-	-	CNDDB	rookery sites (marsh, riparian)	March-July
Black-crowned night heron (rookery)	*Nycticorax nycticorax*	-	-	CNDDB	rookery sites (marsh, riparian)	February-July
White-tailed kite (nesting)	*Elanus leucurus*	-	-	CFP	woodland, grassland	March-June
Northern harrier (nesting)	*Circus cyaneus*	-	-	CSC	marsh, grassland	April-September
Cooper's hawk (nesting)	*Accipiter cooperii*	-	-	CSC	woodland	April-July
Swainson's hawk (nesting)	*Buteo swainsoni*	-	CT	BCC	grassland, riparian	March-August
Ferruginous hawk (wintering)	*Buteo regalis*	-	-	CNDDB	grassland	November-February
Golden eagle (wintering)	*Aquila chrysaetos*	-	-	BCC, CSC, CFP	grassland	October-February
Merlin (wintering)	*Falco columbarius*	-	-	CSC	woodland, grassland	September-April
Prairie falcon (wintering)	*Falco mexicanus*	-	-	BCC, CSC	grassland	October-February
Burrowing owl (burrow sites)	*Athene cunicularia*	-	-	BCC, CSC	grassland	March-August
Loggerhead shrike	*Lanius ludovicianus*	-	-	BCC, CSC	grassland, woodland	March-July
Tricolored blackbird (nesting colony)	*Agelaius tricolor*	-	-	BCC, CSC	marsh, grassland	April-June
Mammals						
Yuma myotis	*Myotis yumanensis*	-	-	CNDDB	riparian woodland, caves, mines, buildings, bridges, rock crevices, trees	April-September
Hoary bat	*Lasiurus cinerus*	-	-	CNDDB	dense foliage of medium to large trees	April-September
Western red bat	*Lasiurus blossevillii*	-	-	CNDDB	riparian woodlands, orchards	April-September
Pallid bat	*Antrozous pallidus*	-	-	CSC	mines, man-made structures, rock outcrops, and woodland near open grasslands for foraging	April-September
Riparian brush rabbit	*Sylvilagus bachmani riparius*	FE	CE	-	Riparian woodland	any season

Status Codes:

- FE - Federal ESA listed, Endangered.
- FT - Federal ESA listed, Threatened.
- FPE - Formally Proposed for federal ESA listing as Endangered.
- FPT - Formally Proposed for federal ESA listing as Threatened.
- FPD - Listed under Federal ESA, but formally proposed for delisting.
- Fd - Formally Delisted (delisted species are monitored for 5 years).
- FC - Candidate for federal ESA listing as Threatened or Endangered.
- BCC - U. S. Fish and Wildlife Service Bird of Conservation Concern (USFWS, 2002).
- CE - California ESA or Native Plant Protection Act listed, Endangered.
- CT - California ESA or Native Plant Protection Act listed, Threatened.
- CR - California ESA or Native Plant Protection Act listed, Rare.
- CC - Candidate for California ESA listing as Endangered or Threatened.
- CFP - Fish and Game Code of California Fully Protected Species (§1511-birds, §4700-mammals, §5050-reptiles/amphibians).
- CSC - California Department of Fish and Game Species of Special Concern (CDFG, updated August 2004).
- 1A - California Native Plant Society/Presumed extinct.
- 1B - California Native Plant Society/Rare or Endangered in California and elsewhere.
- 2 - California Native Plant Society/Rare or Endangered in California, more common elsewhere.
- 3 - California Native Plant Society/Plants about which we need more information
- 4 - California Native Plant Society/Plants of Limited Distribution.
- CNDDB - Species that is tracked by CDFG's Natural Diversity Database but does not have any of the above special-status designations otherwise.



Map Features

Administrative Boundaries
- City Boundary
- County Boundary
- [1] Project Boundary

Buffers
- 1 mile
- 5 mile
- 10 mile

Transportation Network
- Interstate
- State Highway
- Roads
- Railroads

Hydrologic Features
- Lakes and Reservoirs
- Rivers

[2] CNDDB Occurrences

Plants
- Wright's trichocoronis
- bristly sedge
- diamond-petaled California poppy
- lesser saltscale
- showy madia
- marsh skullcap
- recurved larkspur
- slough thistle
- Suisun Marsh aster
- round-leaved filaree
- Delta button-celery
- Delta mudwort
- Delta tule pea
- caper-fruited tropidocarpum
- Mason's lilaeopsis
- rose-mallow
- big tarplant

Reptiles / Amphibians
- giant garter snake
- San Joaquin whipsnake
- Coast (California) horned lizard
- California tiger salamander
- western pond turtle
- California red-legged frog
- western spadefoot

Invertebrates
- California linderiella
- Conservancy fairy shrimp
- vernal pool fairy shrimp
- monarch blister beetle
- valley elderberry longhorn beetle
- Sacramento anthicid beetle

Birds
- yellow-headed blackbird
- western yellow-billed cuckoo
- tricolored blackbird
- California horned lark
- cackling (=Aleutian Canada) goose
- great blue heron
- California black rail
- burrowing owl
- Swainson's hawk

Mammals
- western mastiff bat
- riparian (=San Joaquin Valley) woodrat
- San Joaquin pocket mouse
- riparian brush rabbit
- San Joaquin kit fox
- American badger

NOTES

[1] Project Boundary: ECORP Wetland Delineation

[2] CDFG California Natural Diversity Database (CNDDB), August 2006 Update (GIS Shapefile)

Map Projection: California State Plane Zone III (NAD83) feet

Map Extents Located on USGS 7.5' Quadrangles: Woodward Island, Holt, Stockton West, Stockton East, Peters, Union Island, Lathrop, Manteca, Arena, Clifton Court Forebay, Midway, Tracy, Vernalis, Ripon and Salida, CA

1 " equals 15,000 '

VICINITY MAP

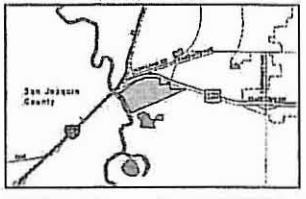


FIGURE 3. CNDDB SPECIAL-STATUS SPECIES

2004-096 South Lathrop Village

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Original Production Date: 08/17/06	Revision:	GIS Specialist: JDS
Printing Date: 09/07/06	Scale: 1 " equals 15,000 '	

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Delta button celery is listed and protected pursuant to the State Endangered Species Act. Slough thistle and Wright's trichocoronis are not listed or protected under either the State or federal Endangered Species Acts, but these species are listed by the CNPS and may be considered by the Lead Agency during the CEQA review process.

The seasonal wetlands on-site represent marginal habitat for dwarf downingia (*Downingia pusilla*, CNPS List 2), Boggs Lake hedge hyssop (*Gratiola heterosepala*, California endangered, CNPS List 1B), legenere (*Legenere limosa*, CNPS List 1B), pincushion navarretia (*Navarretia myersii* ssp. *myersii*, CNPS 1B), and slender orcutt grass (*Orcuttia tenuis*, federal threatened, California endangered, CNPS List 1B). The vegetative community within the seasonal wetlands suggests that these features receive supplemental irrigation throughout the year, which would diminish the potential for the occurrence of these vernal pool species.

Invertebrates

The site is located within the range of the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*, federal threatened). This species is completely dependent on its host plant, elderberry (*Sambucus* species). Elderberry shrubs may occur on-site. A formal survey, conducted in accordance with the *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (USFWS 1996), would be required to ascertain the presence/absence of elderberry shrubs on-site and evidence of the beetles' use of the shrubs, if present. All elderberry shrubs located within the range of the Valley elderberry longhorn beetle that contain one or more stems measuring one inch or greater in diameter at ground level are considered suitable habitat for the species (USFWS 1996).

The seasonal wetlands in the irrigated pasture on-site are considered unsuitable habitat for vernal pool fairy shrimp (*Branchinecta lynchi*, federal threatened), midvalley fairy shrimp (*Branchinecta mesovallensis*, CNDDB), vernal pool tadpole shrimp (*Lepidurus packardi*, federal endangered), and California linderiella (*Linderiella occidentalis*, CNDDB). The vegetative community within the seasonal wetlands indicates that these features receive supplemental

irrigation throughout the year, which would render these features unsuitable as habitat for the above-listed species.

Reptiles

The riparian habitat adjacent to the San Joaquin River represents potentially-suitable upland habitat for giant garter snake (*Thamnophis gigas*, federal threatened, California threatened). Essential giant garter snake habitat components consist of 1) adequate water during early spring through mid fall to provide prey base and cover, 2) emergent wetland vegetation for escape cover and foraging habitat, 3) uplands for basking and retreat sites, and 4) higher elevation upland for cover and flood refugia. The USFWS considers areas within 200 feet of aquatic habitat to represent potential upland habitat. Additionally, the USFWS identifies various levels of impact to giant garter snake habitat, from temporary to permanent, and applies mitigation requirements accordingly. Mitigation required for any temporary or permanent impacts to suitable habitat (aquatic and adjacent uplands) on the property would ultimately be assessed by the USFWS. The nearest previously documented GGS occurrence is located greater than 10 miles to the northeast of the site (CDFG 2003). It is considered unlikely that this species would occur on-site; however, this species is addressed in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, which covers the site.

Birds

Plant communities within South Lathrop South Village may provide suitable habitat for a variety of potentially occurring special-status birds. Potential nesting habitat is present for colonial nesting water birds, special-status and common raptors, and special-status songbirds. Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants.

Colonial Nesting Water Birds

The California Department of Fish and Game's Natural Diversity Database keeps track of colonial nesting water bird rookery sites of double-crested cormorant (*Phalacrocorax auritus*), great blue heron (*Ardea herodias*), great egret (*Ardea alba*), snowy egret (*Egretta thula*), and black-crowned night heron (*Nycticorax nycticorax*), among others. As such, they are subject to analysis pursuant to CEQA. These species are not formally listed and protected pursuant to either State or federal Endangered Species Acts but are of stated interest to CDFG.

The riparian habitat adjacent to the San Joaquin River represents potentially suitable nesting habitat for these species, although rookeries of these species have not been previously reported in this area. In general, the nesting season for these colonial nesters is from March through July, but may vary depending on weather conditions or disturbances.

Nesting Raptors (Birds of Prey)

All raptors (owls, hawks, eagles, falcons), including common species, and their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the federal Migratory Bird Treaty Act, among other federal and State regulations.

The riparian habitat adjacent to the San Joaquin River and other trees throughout the site represent potentially suitable nesting habitat for a variety of special-status raptors. These are: white-tailed kite (*Elanus leucurus*, Fish and Game Code of California fully protected species), Cooper's hawk (*Accipiter cooperii*, CDFG species of special concern), and Swainson's hawk (*Buteo swainsoni*, California threatened). The pasture and ruderal grassland represent potentially suitable nesting habitat for the ground-nesting northern harrier (*Circus cyaneus*, CDFG species of special concern) and burrowing owl (*Athene cunicularia*, CDFG species of special concern, USFWS bird of conservation concern). The CNDDB currently contains nesting records for Swainson's hawk and burrowing owl within 1 mile of the site (CDFG 2003).

In general, raptor nesting occurs from late February and early March through late July and early August, depending on various environmental conditions. In addition to the species described above, common raptors such as red-tailed hawk (*Buteo jamaicensis*) and great horned owl (*Bubo virginianus*), among others, may nest on-site.

Nesting Songbirds

Potentially suitable nesting habitat is present on-site for two regionally occurring special-status songbirds, loggerhead shrike (*Lanius ludovicianus*, CDFG species of special concern and USFWS bird of conservation concern) and tricolored blackbird (*Agelaius tricolor*, CDFG species of special concern and USFWS bird of conservation concern). Loggerhead shrikes nest in small trees and shrubs within oak woodland/savannah and grassland communities. Tricolored blackbirds nest in large colonies in patches of cattails, tule, or other dense vegetation near water.

Other Non-Nesting Birds

Other special-status birds that may occur on-site are not known to nest in this region, or suitable nesting habitat is not present on-site. These are: ferruginous hawk (*Buteo regalis*, CNDDB), golden eagle (*Aquila chrysaetos*, Fish and Game Code of California fully protected species, CDFG species of special concern, USFWS bird of conservation concern), merlin (*Falco columbarius*, CDFG species of special concern) and prairie falcon (*Falco mexicanus*, CDFG species of special concern, USFWS bird of conservation concern).

Mammals

The riparian habitat on-site may represent potential roosting habitat for four special-status bats. These are: Yuma myotis (*Myotis yumanensis*, CNDDB), hoary bat (*Lasiurus cinerus*, CNDDB), western red bat (*Lasiurus blossevillii*, CNDDB), and pallid bat (*Antrozous pallidus*, CDFG species of special concern). These species may roost in trees throughout the site. In addition, the San Joaquin River represents potential foraging habitat for these species. These species are not listed or protected pursuant the California or federal Endangered Species Act.

However, they are considered CDFG species of special concern and/or are tracked by the CNDDB.

The riparian habitat may represent suitable habitat for riparian brush rabbit (*Sylvilagus bachmani riparius*, federal endangered, California endangered). Riparian brush rabbits inhabit dense, brushy areas of valley riparian forests marked by extensive thickets of California wild rose (*Rosa californica*), California blackberries (*Rubus ursinus*), and willows. Historically, the riparian brush rabbit is believed to have inhabited riparian forests, woodlands, and brushlands along portions of the San Joaquin River and it tributaries in California's Central Valley, from Stanislaus County to the Sacramento-San Joaquin Delta (Orr 1935). The breeding season of the riparian brush rabbit occurs from December to May (Williams 1986).

CONCLUSION

The vegetation communities observed on-site represent potentially suitable habitat for several regionally occurring special-status species. Plants include slough thistle, Delta button celery, and Wright's trichocoronis. Valley elderberry longhorn beetle may occur in elderberry shrubs potentially present in riparian habitat on-site. Riparian habitat adjacent to the San Joaquin River may provide suitable upland habitat for giant garter snake. Potential nesting habitat is present for colonial nesting water birds (i.e., double-crested cormorant, great blue heron, great egret, snowy egret, and black-crowned night heron), special-status raptors (i.e., white-tailed kite, northern harrier, Cooper's hawk, Swainson's hawk, and burrowing owl), common raptors (e.g., red-tailed hawk and great-horned owl), and special-status songbirds (i.e., loggerhead shrike and tricolored blackbird). Other special-status birds that may occur on-site do not nest in this region and represent migrants or winter visitants. These are: ferruginous hawk, golden eagle, merlin, and prairie falcon. Special-status bats that may roost and forage on-site include Yuma myotis, hoary bat, western red bat, and pallid bat. Potentially suitable habitat for riparian brush rabbit may be present in the riparian corridor. Determinate surveys, conducted during the appropriate survey periods, would be required to evaluate the presence/absence of these species within this site.

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ATTACHMENT A

Rarefind 2 Data Report

Agelaius tricolor

tricolored blackbird — Element Code: ABPBXB0020

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G2G3	CDFG Status: SC
State: None	State: S2	

Habitat Associations

General: (NESTING COLONY) HIGHLY COLONIAL SPECIES, MOST NUMBEROUS IN CENTRAL VALLEY & VICINITY. LARGELY ENDEMIC TO CALIFORNIA.

Micro: REQUIRES OPEN WATER, PROTECTED NESTING SUBSTRATE, & FORAGING AREA WITH INSECT PREY WITHIN A FEW KM OF THE COLONY.

Occurrence No. 95 Map Index: 11686 EO Index: 24732

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEHAVEN, R. (OBS)

Dates Last Seen — Element: 1971-05-05 Site: 1971-05-05
Record Last Updated: 1991-07-25

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79714° / -121.26327°
UTM: Zone-10 N4184728 E652905
Radius: 1/5 mile
Elevation: 20 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S Range: 06E Section: 01 Qtr: XX Meridian: M

Location: 0.25 MI W OF HWY 120 AND SWANSON RD JCT, APPROX 2.5 MI W OF MANTECA.

Location Detail: NESTING (FLEDGLING STAGE) IN GIANT CANE; OBS BY DE HAVEN. COLONY SIZE APPROX 0.25 ACRE

Ecological: NO WATER PRESENT.

Owner/Manager: UNKNOWN

Occurrence No. 96 Map Index: 11583 EO Index: 12696

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOSEA, R. 1986 (OBS)

Dates Last Seen — Element: 1972-05-26 Site: 1972-05-26
Record Last Updated: 1991-07-25

Quad Summary: LATHROP (3712173/462D), STOCKTON WEST (3712183/462A)
County Summary: SAN JOAQUIN

Lat/Long: 37.86954° / -121.32273°
UTM: Zone-10 N4192677 E647525
Radius: 1 mile
Elevation: 5 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 01S Range: 05E Section: 4 Qtr: XX Meridian: M

Location: 0.75 MI SE OF JUNCT OF SAN JOAQUIN RIVER AND RD J-9.

Location Detail: COLONY OF APPROX 5000 OBS BY DE HAVEN NESTING IN CATTAIL/BULRUSH HABITAT; FLEDGLING STAGE OF NESTING. COLONY SIZE 0.75 ACRE.

Owner/Manager: UNKNOWN

Occurrence No. 99 Map Index: 11611 EO Index: 24729

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOSEA, R. 1986 (OBS)

Dates Last Seen — Element: 1974-06-05 Site: 1974-05-05
Record Last Updated: 1989-08-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334°
UTM: Zone-10 N4183692 E649395
Radius: 1 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S Range: 06E Section: 3 Qtr: XX Meridian: M

Location: ALONG HWY 120, 5 MI W OF MANTECA.

Location Detail: COLONY OF 25-50 OBS BY NEFF IN GIANT CANE IN MAY 1972; POST-FLEDGING. COLONY OF >500 OBS BY NEFF NESTING IN GIANT CANE IN JUNE 1974; POST-FLEDGING AND NEW CLUTCHES.

Owner/Manager: UNKNOWN

Ambystoma californiense

California tiger salamander — Element Code: AAAAA01180

Status	NDDB Element Ranks	Other Lists
Federal: Threatened	Global: G2G3	CDFG Status: SC
State: None	State: S2S3	

Habitat Associations

General: CENTRAL VALLY DPS LISTED AS THREATENED. SANTA BARBARA & SONOMA COUNTY DPS LISTED AS ENDANGERED.

Micro: NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS & VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING

Occurrence No. 37 Map Index: 11647 EO Index: 28418

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: TATARIAN, T. 1995 (OBS)

Dates Last Seen
Element: 1996-04-11
Site: 1996-04-11

Record Last Updated: 2001-03-13

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78368° / -121.27287°
UTM: Zone-10 N4183219 E652087
Radius: 1/10 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 02 Qtr: SE
Meridian: M

Location: SOUTH SIDE OF HIGHWAY 120, NEAR THE JUNCTION OF MCKINLEY ROAD, SOUTH OF LATHROP

Location Detail: 1974 OBSERVATION WAS ON THE MATLEY PROPERTY 2785 BRONZAN ROAD, W MCKINLEY.

Ecological: HABITAT CONSISTS OF A SEASONAL POND CREATED BY THE BERM OF HIGHWAY 20. SITE IS SURROUNDED BY RESIDENTIAL DEVELOPMENT.

General: OBSERVED IN 1974 (S. MCGINNIS, PERSONAL COMMUNICATION). ~50 LARVAE OBSERVED ON 11 APR 1996.

Owner/Manager: PVT

Aster lentus

Suisun Marsh aster — Element Code: PDAST0T540

Status
Federal: None
State: None

NDDB Element Ranks
Global: G2
State: S2.2

Other Lists
CNPS List: 1B
R-E-D Code: 2-2-3

Habitat Associations
General: MARSHES AND SWAMPS (BRACKISH AND FRESHWATER).
Micro: MOST OFTEN SEEN ALONG SLOUGHS WITH PHRAGMITES, SCIRPUS, BLACKBERRY, TYPHA, ETC. 0-3M.

Occurrence No. 145 Map Index: 62567 EO Index: 62604
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: MICHENER SN UC #71891 (HERB)

Dates Last Seen
Element: 1892-09-09
Site: 1892-09-09
Record Last Updated: 2005-09-13

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82249° / -121.27667°
UTM: Zone-10 N4187519 E651655
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 05E
Section: 26
Qtr: XX
Meridian: M

Location: LATHROP.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1892 COLLECTION BY MICHENER AND BIOLETTI.
Owner/Manager: UNKNOWN

Occurrence No. 145 Map Index: 62568 EO Index: 62605
Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: ABRAMS, L. #7788 UC #893616 (HERB)

Dates Last Seen
Element: 1920-09-30
Site: 1920-09-30
Record Last Updated: 2005-09-13

Quad Summary: VERNALIS (3712163/444A), TRACY (3712164/444B), LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.75395° / -121.37281°
UTM: Zone-10 N4179752 E643343
Radius: 1 mile
Elevation:
Mapping Precision: NON-SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 05E
Section: 24
Qtr: XX
Meridian: M

Location: NEAR BANTA.
Location Detail: EXACT LOCATION UNKNOWN.
General: ONLY SOURCE OF INFORMATION FOR THIS OCCURRENCE IS A 1920 COLLECTION BY ABRAMS.
Owner/Manager: UNKNOWN

Athene cunicularia

burrowing owl — Element Code: ABNSB10010

Status — **NDDB Element Ranks** — **Other Lists**

Federal: None — Global: G4 — CDFG Status: SC
State: None — State: S2

Habitat Associations

General: (BURROW SITES) OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.
Micro: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Occurrence No. 251 — Map Index: 36447 — EO Index: 31444 — **Dates Last Seen**
Occ Rank: Fair — Element: 2000-01-21
Origin: Natural/Native occurrence — Site: 2000-01-21
Presence: Presumed Extant
Trend: Unknown — Record Last Updated: 2000-01-01
Main Source: CROWE, R. 1997 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79797° / -121.26440° — Township: 01S
UTM: Zone-10 N4184818 E652804 — Range: 06E
Radius: 1/10 mile — Mapping Precision: NON-SPECIFIC — Section: 36 — Qtr: SW
Elevation: 25 ft — Symbol Type: POINT — Meridian: M

Location: NORTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF THE INTERSECTION OF YOSEMITE AVENUE AND MCKINLEY AVENUE, SE OF LATHROP
Location Detail: BURROW IS LOCATED IN A NEWLY-CREATED DETENTION BASIN NORTH OF THE SAN JOAQUIN RAIL STATION PARKING LOT.
Ecological: HABITAT SURROUNDING BURROW CONSISTS OF WINTER WHEAT TO THE WEST, A SMALL BAND OF ANNUAL GRASSLAND TO THE EAST, AND THE REMAINDER IS SCRAPED CLEAN.
Threat: THREATENED BY DEVELOPMENT.
General: 2 ADULTS AND 2 JUVENILES OBSERVED ON 24 JUL 1997. 1 ADULT OBSERVED ON 21 JAN 2000.
Owner/Manager: PVT

Occurrence No. 265 — Map Index: 38438 — EO Index: 33445 — **Dates Last Seen**
Occ Rank: Fair — Element: 1997-03-14
Origin: Natural/Native occurrence — Site: 1997-03-14
Presence: Presumed Extant
Trend: Unknown — Record Last Updated: 1998-03-23
Main Source: CROWE, R. 1997 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82534° / -121.25893° — Township: 01S
UTM: Zone-10 N4187864 E653229 — Range: 06E
Radius: 80 meters — Mapping Precision: SPECIFIC — Section: 25 — Qtr: NE
Elevation: 20 ft — Symbol Type: POINT — Meridian: M

Location: 0.3 MILES WSW OF INTERSECTION OF LATHROP RD & DURHAM FERRY RD. 0.75 MILES EAST OF LATHROP.
Ecological: HABITAT CONSISTS OF IRRIGATED PASTURE.
Threat: POSSIBLE THREAT FROM COMMERCIAL CONSTRUCTION.
General: ON 14 MARCH 1997, A PAIR OF OWLS WAS OBSERVED, POSSIBLY WITH EGGS.
Owner/Manager: UNKNOWN

Occurrence No. 342 — Map Index: 42086 — EO Index: 42086 — **Dates Last Seen**
Occ Rank: Excellent — Element: 2005-05-13
Origin: Natural/Native occurrence — Site: 2005-05-13
Presence: Presumed Extant
Trend: Unknown — Record Last Updated: 2005-05-25
Main Source: BARCLAY, J. 1999 (OBS)

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83121° / -121.26926° — Township: 01S
UTM: Zone-10 N4188499 E652308 — Range: 06E
Area: 314.8 ac — Mapping Precision: NON-SPECIFIC — Section: 24 — Qtr: NE
Elevation: 20 ft — Symbol Type: POLYGON — Meridian: M

Location: SHARPE DEPOT, LATHROP
Location Detail: BURROWS ARE LOCATED BETWEEN AN ABANDONED RUNWAY AND THE RAILROAD TRACKS. ARTIFICIAL BURROWS WERE INSTALLED IN 1999 TO MITIGATE THE LOSS OF HABITAT FROM CONSTRUCTION OF A LARGE BUILDING. 4 PAIRS UTILIZED ARTIFICIAL BURROWS IN 1999.
Ecological: HABITAT CONSISTS OF MOWED NON-NATIVE GRASSLAND VEGETATION, DOMINATED BY YELLOW STAR THISTLE AND BERMUDA GRASS; SURROUNDED BY A MILITARY SUPPLY/STORAGE AREA.
Threat: THREATENED BY PROLIFERATION OF YELLOW STAR THISTLE (EVEN THOUGH VEGETATION IS MOWED), CONSTRUCTION, AND PREDATION.
General: 8 PAIRS EST. 1997. 4 PAIRS & YOUNG, 1998. 7 PAIRS/JUVS. OBS IN 1999. 13 PAIRS/55 JUVS. 24 MAY-29 JUN 2001. 20 PAIRS/55 JUVS. MAY-JUN 2002. 19 PAIRS/41 JUVS. 15 JUN 2003. 43 ADS/57 JUVS. 22 JUN 2004. 37 ADS/60 JUVS. MAY-JUN 2005.
Owner/Manager: DOD-SHARPE DEPOT

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 17 Map Index: 11557 EO Index: 27288

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH & GAME 1984 (PERS)

Dates Last Seen:
Element: 1979-08-03
Site: 1982-05-29
Record Last Updated: 1999-08-10

Quad Summary: VERNALIS (3712163/444A), LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.74880° / -121.34133°
UTM: Zone-10 N4179239 E646127
Radius: 1/5 mile
Elevation: 20 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 20 Qtr: NW
Meridian: M

Location: HWY I-5 & KASSON RD.

General: DFG SWHA #SJ007. TWO ADULTS OBSERVED, BUT NO NEST FOUND IN 1979. SITE INACTIVE IN 1982.

Owner/Manager: PVT

Occurrence No. 387 Map Index: 21219 EO Index: 9047

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: HOLT, W. 1990 (OBS)

Dates Last Seen:
Element: 1990-05-31
Site: 1990-05-31
Record Last Updated: 1993-05-14

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82271° / -121.33793°
UTM: Zone-10 N4187445 E646281
Radius: 1/5 mile
Elevation: 10 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 06E
Section: 20 Qtr: SW
Meridian: M

Location: ROBERTS ISLAND, SOUTH OF THE JUNCTION OF UNDINE ROAD AND ROBERTS ROAD, 3 MI WEST OF LATHROP.

Ecological: NEST TREE IS A VALLEY OAK WITHIN A GROUP OF LARGE VALLEY OAKS AROUND FARM BUILDINGS. SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: DFG SWHA #SJ057. ONE ADULT OBSERVED CARRYING A VOLE TO THE NEST, INDICATING THE PRESENCE OF NESTLING(S), ALTHOUGH NONE WERE VISIBLE. 2 YOUNG WERE EVENTUALLY FLEDGED IN 1990

Owner/Manager: PVT

Occurrence No. 391 Map Index: 21509 EO Index: 17717

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: SCHMOLDT, D. 1992 (OBS)

Dates Last Seen:
Element: 1992-05-22
Site: 1992-05-22
Record Last Updated: 1992-05-02

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.78508° / -121.30863°
UTM: Zone-10 N4183316 E648935
Radius: 80 meters
Elevation: 15 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 3 Qtr: XX
Meridian: M

Location: JUST WEST OF THE MOSSDALE MARINA, ABOUT 200 FEET NORTH OF I-5, 5 MI WEST OF MANTECA.

Ecological: NEST TREE IS A LARGE VALLEY OAK IN A PRIVATE YARD, SURROUNDING HABITAT IS AGRICULTURAL LAND.

General: BIRD(S) FIRST OBSERVED ON 20 MAY 1992 CARRYING PREY INTO NEST TREE; NEST DISCOVERED ON A RETURN VISIT ON 22 MAY 1992, WHEN ONE BIRD WAS OBSERVED ON THE NEST AND THE OTHER WAS SOARING ABOVE.

Owner/Manager: PVT

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 681 Map Index: 33403 EO Index: 22464

Occ Rank: Fair
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: LAWRENCE, M. 1996 (OBS)

Dates Last Seen
Element: 2002-07-17
Site: 2002-07-17
Record Last Updated: 2005-05-11

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76337° / -121.34603°
UTM: Zone-10 N4180849 E645684
Radius: 80 meters
Elevation: 10 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 18 Qtr: XX
Meridian: M

Location: WEST SIDE OF BERRY AVENUE, 0.1 MILE SOUTH THE INTERSECTION WITH CANAL BOULEVARD, 5 MILES NORTH OF TRACY

Location Detail: THERE WERE 3 VALLEY OAKS IN A ROW, THE 1996 NEST TREE WAS THE CENTER ONE, WITH THE NEST LOCATED IN THE UPPER PORTION OF THE TREE. THE 2002 NEST TREE WAS WITHIN A FARMSTEAD TO THE SOUTH, ALONG BERRY AVENUE.

Ecological: NEST TREE IS A LARGE VALLEY OAK; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURAL FIELDS PLANTED IN ROW CROPS TO THE SE AND SW, FALLOW FIELDS TO THE NE, AND ROADWAY/COMMERCIAL TO THE NW.

General: NEST AND 2 ADULTS OBSERVED ON 26 MAR 1996, 2000; NEST CONTAINING 2 DOWNY YOUNG OBSERVED ON 9 JUN 2002; NESTING SUSPECTED ON 20 APR; NEST WITH 1 FEATHERED CHICK OBSERVED ON 27 JUN; 2 JUV PERCHED IN NEST TREE ON 17 JUL.

Owner/Manager: UNKNOWN

Occurrence No. 697 Map Index: 38803 EO Index: 33810

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: CROWE, R. 1998 (OBS)

Dates Last Seen
Element: 1998-04-14
Site: 1998-04-14
Record Last Updated: 1998-05-18

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79613° / -121.26609°
UTM: Zone-10 N4184611 E652658
Radius: 1/10 mile
Elevation: 25 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 01 Qtr: NW
Meridian: M

Location: SOUTH SIDE OF YOSEMITE AVENUE, 0.3 MILE EAST OF MCKINLEY AVENUE, SOUTH OF LATHROP.

Location Detail: NEST IS LOCATED IN A WIND BREAK BETWEEN AN AGRICULTRUAL FIELD AND HOUSES.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDED BY AGRICULTURAL FIELDS (ROW CROPS) AND ASSOCIATED RESIDENCES.

General: 2 ADULTS/NEST OBSERVED ON 14 APRIL 1998.

Owner/Manager: UNKNOWN

Occurrence No. 937 Map Index: 45622 EO Index: 45622

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen
Element: 2001-05-21
Site: 2001-05-21
Record Last Updated: 2002-03-12

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80628° / -121.32392°
UTM: Zone-10 N4185644 E647546
Radius: 80 meters
Elevation: 18 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 06E
Section: 33 Qtr: XX
Meridian: M

Location: SAN JOAQUIN RIVER, AT THE HEAD OF OLD RIVER, SW OF LATHROP

Location Detail: 2000 NEST TREE WAS A COTTONWOOD, LOCATED ON THE NORTH BANK OF OLD RIVER, AT THE ELBOW. 2001 NEST TREE WAS A 35-FT TALL WILLOW.

Ecological: NEST TREE IS A 35-FT TALL WILLOW, WITHIN A GROUP OF 3 TREES; SURROUNDED BY SUBSTANTIAL ALFALFA FIELDS.

Threat: THREATENED BY HUMAN DISTURBANCE (BOATS, CARS, FARM MACHINERY) AND LIVESTOCK.

General: NEST WAS MONITORED THROUGH THE 2000 NESTING SEASON; 2 ADULTS AND 1 JUVENILE OBSERVED ON 14 JUN 2000. 2 ADULTS AND 2 YOUNG OBSERVED ON 21 JUN 2001; YOUNG WERE BANDED.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 944 Map Index: 45715 EO Index: 45715

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen:
Element: 2001-05-16
Site: 2001-05-16
Record Last Updated: 2003-07-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81072° / -121.32260°
UTM: Zone-10 N4186139 E647654
Area: 11.3 ac
Elevation: 25 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 01S
Range: 06E
Section: 33 Qtr: XX
Meridian: M

Location: ALONG SAN JOAQUIN RIVER, 0.3 MILE DOWNSTREAM OF THE HEAD OF OLD RIVER, WEST OF LATHROP

Location Detail: 2000 NEST TREE WAS A 40-50' TALL BLACK WALNUT ON THE NORTH BANK. 2001 NEST TREE WAS A COTTONWOOD ON THE SOUTH BANK.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDED BY MATURE RIPARIAN FOREST AND AGRICULTURE (INCLUDING SUBSTANTIAL ALFALFA).

Threat: THREATENED BY RECREATIONAL USE OF THE AREA (BOATERS AND FISHERMEN).

General: 2 ADULTS OBSERVED NESTING DURING 2000, BUT THE NEST FAILED AND THE ADULTS ABANDONED; FEMALE OBSERVED ON THE NEST ON 8 MAY 2000, AND NEST WAS ACTIVE ON 7 JUL 2000. 2 ADULTS OBSERVED NESTING ON 16 MAY 2001, BUT THE NEST LATER FAILED.

Owner/Manager: UNKNOWN

Occurrence No. 997 Map Index: 47404 EO Index: 47404

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen:
Element: 2001-05-16
Site: 2001-05-16
Record Last Updated: 2002-03-12

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81945° / -121.34580°
UTM: Zone-10 N4187072 E645594
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 30 Qtr: XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, DOWNSTREAM OF THE HEAD OF OLD RIVER, SOUTH OF STOCKTON.

Location Detail: NEST TREE IS LOCATED ON THE LAND SIDE OF THE LEVEE.

Ecological: NEST TREE IS A LARGE OAK, WITHIN A CLUSTER OF OAKS, WILLOWS, AND COTTONWOODS; SURROUNDED BY AGRICULTURAL FIELDS.

Threat: POSSIBLE THREAT OF DISTURBANCE FROM HUMAN RECREATIONAL USE OF AREA (BOATING, FISHING, ETC).

General: PAIR OBSERVED NESTING ON 19 APR 2000. PAIR OBSERVED NESTING ON 16 MAY 2001; FEMALE ON NEST.

Owner/Manager: UNKNOWN

Occurrence No. 1109 Map Index: 50998 EO Index: 50998

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 1999 (OBS)

Dates Last Seen:
Element: 1999-07-05
Site: 1999-07-05
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.79152° / -121.37565°
UTM: Zone-10 N4183926 E643021
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 02S
Range: 05E
Section: 01 Qtr: XX
Meridian: M

Location: WEST SIDE OF PARADISE ROAD, 0.3 MILE SOUTH OF DELTA AVENUE, NE OF TRACY

Ecological: NEST TREE IS A LONE COTTONWOOD NEXT TO SOME HOUSES; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.

General: NEST SITE ACTIVE IN 1997 AND 1998. 2 ADULTS AND 2 JUVENILES OBSERVED AT THE NEST SITE ON 6 JUL 1999.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1110 Map Index: 51000 EO Index: 51000

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen:
Element: 2000-04-19
Site: 2000-04-19
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81362° / -121.33465°
UTM: Zone-10 N4186464 E646567
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 29 Qtr: XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, 0.75 MILE UPSTREAM FROM THE SAN JOAQUIN RIVER CONFLUENCE, NORTH OF TRACY

Ecological: NEST TREE IS AN OAK WITHIN REMNANT RIPARIAN ON A DISTURBED LEVEE SLOPE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE.

General: NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 19 APR 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1111 Map Index: 51001 EO Index: 51001

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2000 (OBS)

Dates Last Seen:
Element: 2000-05-03
Site: 2000-05-03
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.82062° / -121.31955°
UTM: Zone-10 N4187243 E647903
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 20 Qtr: XX
Meridian: M

Location: EAST SIDE OF SAN JOAQUIN RIVER, 0.25 MILE EAST OF THE SOUTH END OF UNDINE ROAD, NE OF TRACY

Ecological: NEST TREE IS A LARGE OAK WITHIN WITHIN A LINE OF OAKS, JUST OFF THE LEVEE; SURROUNDING FORAGING HABITAT CONSISTS OF AGRICULTURE (MAINLY ROW CROPS AND ALFALFA).

General: NEST SITE ACTIVE IN 1998 AND 1999. 2 ADULTS OBSERVED AT THE NEST SITE ON 3 MAY 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1112 Map Index: 51002 EO Index: 51002

Occ Rank: Excellent
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen:
Element: 2001-04-16
Site: 2001-04-16
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80762° / -121.35015°
UTM: Zone-10 N4185752 E645234
Radius: 80 meters
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POINT
Township: 01S
Range: 06E
Section: 31 Qtr: XX
Meridian: M

Location: STEWART ROAD, 0.4 MILE EAST OF PARADISE ROAD, NE OF TRACY

Ecological: NEST TREE IS ONE OF TWO ROADSIDE OAKS; SURROUNDING FORAGING HABITAT CONSISTS OF ALFALFA.

General: 2 ADULTS OBSERVED DURING NEST-BUILDING ON 16 APR 2001.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1113 Map Index: 51003 EO Index: 51003

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen: Element: 2001-04-27; Site: 2001-04-27
Record Last Updated: 2003-04-16

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.86532° / -121.31645°
UTM: Zone-10 N4192207 E648086
Radius: 80 meters
Elevation: 10 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 09 Qtr: XX
Meridian: M

Location: NORTH SIDE OF BOWMAN ROAD, 0.4 MILE EAST OF BOWMAN BRIDGE OVER THE SAN JOAQUIN RIVER, SOUTH OF STOCKTON.

Ecological: NEST TREE IS SURROUNDED BY RURAL AGRICULTURE WITH A FEW HOUSES, BUT GOOD FORAGE CROPS.

Threat: THREATENED BY URBAN ENCROACHMENT.

General: 2 ADULTS OBSERVED NESTING ON 27 APR 2001.

Owner/Manager: UNKNOWN

Occurrence No. 1114 Map Index: 51005 EO Index: 51005

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRADBURY, M. 2001 (OBS)

Dates Last Seen: Element: 2001-05-12; Site: 2001-05-12
Record Last Updated: 2003-04-17

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83343° / -121.36235°
UTM: Zone-10 N4188597 E644110
Radius: 80 meters
Elevation:

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 19 Qtr: XX
Meridian: M

Location: SOUTH SIDE OF UNDINE ROAD, 1.3 MILES WEST OF ROBERTS ROAD, NW OF TRACY

Location Detail: NEST TREE LOCATED NEXT TO A FARM HOUSE.

Ecological: NEST TREE IS A COTTONWOOD; SURROUNDING FORAGING HABITAT CONSISTS OF VINEYARDS, ORCHARDS, AND SOME GOOD FORAGE CROPS.

General: ACTIVE NEST IN 2000. 2 ADULTS OBSERVED NESTING ON 12 MAY 2001.

Owner/Manager: UNKNOWN

Occurrence No. 1190 Map Index: 51170 EO Index: 51170

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen: Element: 2000-05-15; Site: 2000-05-15
Record Last Updated: 2003-04-30

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.83943° / -121.31726°
UTM: Zone-10 N4189334 E648066
Radius: 80 meters
Elevation: 10 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 21 Qtr: NE
Meridian: M

Location: SAN JOAQUIN RIVER, AT RIVER MILE 50(L), 5 MILES NW OF MANTECA

Ecological: NEST TREE IS A 70' TALL COTTONWOOD

General: ADULT(S) OBSERVED AT THE NEST ON 15 JUN 2000.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1198 Map Index: 51190 EO Index: 51190

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen — Element: 2000-05-20 Site: 2000-05-20
Record Last Updated: 2003-05-01

Quad Summary: LATHROP (3712173/462D), UNION ISLAND (3712174/462C)
County Summary: SAN JOAQUIN

Lat/Long: 37.85878° / -121.37668°
UTM: Zone-10 N4191388 E642800
Radius: 80 meters
Elevation: 5 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 12 Qtr: XX
Meridian: M

Location: WEST SIDE OF MIDDLE RIVER, 1.3 MILES SSE OF THE INTERSECTION OF HOWARD ROAD AND WING LEVEE ROAD, 7 MILES NORTH OF TRACY

Ecological: NEST TREE IS A 30' TALL VALLEY OAK, SURROUNDED BY RIPARIAN TO THE SE AND SW, AND BY ROW CROPS TO THE NE AND NW.

General: ADULTS OBSERVED FEEDING 2 PARTIALLY-FEATHERED YOUNG IN THE NEST ON 20 JUN 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1221 Map Index: 51733 EO Index: 51733

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: GIFFORD, D. 2000 (OBS)

Dates Last Seen — Element: 2000-07-07 Site: 2000-07-07
Record Last Updated: 2003-07-10

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.80121° / -121.31241°
UTM: Zone-10 N4185100 E648570
Radius: 80 meters
Elevation: 15 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 06E
Section: 33 Qtr: XX
Meridian: M

Location: EAST SIDE OF OLD RIVER, 1.2 MILES SW OF THE INTERSECTION OF LOUISE AVENUE AND I-5, SW OF LATHROP

Ecological: NEST TREE IS A 25' WILLOW, SURROUNDED BY CROPLAND IN ALL DIRECTIONS.

General: NEST WITH 2 FEATHERED YOUNG OBSERVED ON 7 JUL 2000.

Owner/Manager: UNKNOWN

Occurrence No. 1587 Map Index: 63290 EO Index: 63362

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen — Element: 2002-07-18 Site: 2002-07-18
Record Last Updated: 2005-12-01

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.86883° / -121.27610°
UTM: Zone-10 N4192662 E651627
Radius: 80 meters
Elevation: 22 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 06E
Section: 11 Qtr: NE
Meridian: M

Location: BETWEEN SOUTH HARLAN ROAD AND SOUTH MCKINLEY ROAD, 1 MILE SOUTH OF FRENCH CAMP, SW OF STOCKTON AIRPORT

Location Detail: NEST TREE LOCATED NEXT TO HOUSE, ON THE WEST SIDE OF THE RAILROAD TRACKS AND EAST OF I-5.

Ecological: NEST TREE WAS A LARGE WILLOW, SURROUNDED BY GRASSLANDS TO THE NE AND SW, RESIDENTIAL/URBAN TO THE SE, AND COMMERCIAL/HIGHWAY TO THE NW

General: NEST AND COPULATING ADULTS OBSERVED ON 19 APR; 1 ADULT IN NEST ON 24 MAY, BUT NO YOUNG VISIBLE; 2 CHICKS OBSERVED IN THE NEST ON 9 JUN; 2 JUVENILES AND 1 ADULT OBSERVED ON 18 JUL 2002.

Owner/Manager: UNKNOWN

Buteo swainsoni

Swainson's hawk — Element Code: ABNKC19070

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: Threatened	State: S2	

Habitat Associations

General: (NESTING) BREEDS IN STANDS WITH FEW TREES IN JUNIPER-SAGE FLATS, RIPARIAN AREAS AND IN OAK SAVANNAH.

Micro: REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Occurrence No. 1607 Map Index: 63869 EO Index: 63964

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen: Element: 2002-05-10; Site: 2002-05-10
Record Last Updated: 2005-02-02

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76484° / -121.33187°
UTM: Zone-10 N4181034 E646928
Radius: 80 meters
Elevation: 15 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 17 Qtr: XX
Meridian: M

Location: NORTH SIDE OF TOM PAINE SLOUGH, JUST SOUTH OF THE JUNCTION OF I-5 AND I-205, SW OF MANTECA.

Ecological: NEST TREE WAS A COTTONWOOD; SURROUNDED BY GRASSLAND TO THE NE, SE, AND SW, AND ROW CROPS TO THE NW.

General: 1 ADULT OBSERVED AT THE NEST ON 30 MAY; 1 DOWNY CHICK OBSERVED IN THE NEST WITH 1 ADULT AT THE NEST EDGE ON 10 JUN 2002.

Owner/Manager: UNKNOWN

Occurrence No. 1608 Map Index: 63875 EO Index: 63970

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen: Element: 2002-07-07; Site: 2002-07-07
Record Last Updated: 2005-02-02

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79234° / -121.30519°
UTM: Zone-10 N4184127 E649135
Radius: 80 meters
Elevation: 17 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 06E
Section: 03 Qtr: XX
Meridian: M

Location: EAST SIDE OF THE SAN JOAQUIN RIVER, 0.4 MILE NORTH OF THE I-5 CROSSING OF THE SAN JOAQUIN RIVER, 4 MILES WEST OF MANTECA.

Ecological: NEST TREE WAS A VALLEY OAK; SURROUNDED BY GRASSLAND TO THE SW, RIPARIAN TO THE NW, AND FALLOW/RUDERAL TO THE NE AND SE.

General: ACTIVE NEST OBSERVED ON 30 MAY; 2 PARTIALLY-FEATHERED CHICKS OBSERVED IN THE NEST ON 10 JUN, ONLY 1 JUVENILE REMAINED IN THE NEST BY 7 JUL 2002.

Owner/Manager: UNKNOWN

Occurrence No. 1623 Map Index: 64668 EO Index: 64747

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: DEPT OF FISH AND GAME 2005 (PERS)

Dates Last Seen: Element: 2002-05-23; Site: 2002-07-17
Record Last Updated: 2005-05-11

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76445° / -121.35142°
UTM: Zone-10 N4180945 E644326
Radius: 80 meters
Elevation: 32 ft

Mapping Precision: SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 05E
Section: 18 Qtr: NW
Meridian: M

Location: SOUTH SIDE OF I-205, 0.1 MILE WEST OF WHERE CALIFORNIA AVENUE CROSSES I-205, 3 MILES NE OF TRACY.

Ecological: NEST TREE WAS A EUCALYPTUS; SURROUNDED BY FALLOW FIELDS TO THE NE, ROW CROPS TO THE SE AND SW, AND ROADWAYS/COMMERCIAL TO THE NW.

General: ADULTS OBSERVED SOARING AND LANDING ON 20 APR; 2 DOWNY HEADS VISIBLE IN NEST ON 3 JUN; 1 ADULT AND 1 JUVENILE OBSERVED AT NEST ON 27 JUN. NO HAWKS PRESENT ON 17 JUL 2002.

Owner/Manager: UNKNOWN

Cirsium crassicaule

slough thistle

Element Code: PDAST2E0U0

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G2	CNPS List: 1B
State: None	State: S2.2	R-E-D Code: 3-3-3

Habitat Associations

General: CHENOPOD SCRUB, MARSHES AND SWAMPS, RIPARIAN SCRUB.

Micro: SLOUGHS, RIVERBANKS, AND MARSHY AREAS. 3-100M

Occurrence No. 2 Map Index: 24660 EO Index: 6754

Dates Last Seen

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown
Main Source: HOWELL, J. #11447 RSA (HERB)

Element: 1933-07-20
Site: 1974-07-18
Record Last Updated: 1995-09-30

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81005° / -121.31942°
UTM: Zone-10 N4186070 E647935
Radius: 1 mile
Elevation: 10 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 33 Qtr: XX
Meridian: M

Location: 2 MILES NORTHEAST OF LATHROP BRIDGE ALONG SAN JOAQUIN RIVER.

Location Detail: MAPPED NEAR SAN JOAQUIN RIVER-OLD RIVER CONFLUENCE.

Ecological: IN SHALLOW WATER OF CANAL.

Threat: AREA OF INTENSIVE AGRICULTURE WITH MODIFIED CANALS

General: SPECIES LAST SEEN IN THIS AREA IN 1933. SEARCHED FOR IN 1974 BUT NOT FOUND.

Owner/Manager: UNKNOWN

Eryngium racemosum

Delta button-celery — Element Code: PDAPI0Z0S0

Status		NDDB Element Ranks		Other Lists	
Federal:	None	Global:	G2Q	CNPS List:	1B
State:	Endangered	State:	S2.1	R-E-D Code:	2-3-3

Habitat Associations

General: RIPARIAN SCRUB.

Micro: SEASONALLY INUNDATED FLOODPLAIN ON CLAY. 3-75M.

Occurrence No. 3 — Map Index: 11611 — EO Index: 20059

Dates Last Seen

Occ Rank: None
Origin: Natural/Native occurrence
Presence: Possibly Extirpated
Trend: Unknown
Main Source: ALLEN, P. 1974 (PERS)

Element: XXXX-XX-XX
Site: 1984-08-28
Record Last Updated: 1997-03-18

Quad Summary: LATHROP (3712173/462D)

County Summary: SAN JOAQUIN

Lat/Long: 37.78839° / -121.30334°
UTM: Zone-10 N4183692 E649395
Radius: 1 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 05E
Section: 3 Qtr: XX
Meridian: M

Location: NEAR HISTORICAL MONUMENT ON HWY 120, ABOUT 3 MI S OF LATHROP.

Threat: AREA NOW FLOODS YEARLY AND WALNUT ORCHARD EXISTS TO EDGE OF RIVER.

General: HABITAT GONE IN 1984.

Owner/Manager: PVT

Sylvilagus bachmani riparius

riparian brush rabbit — Element Code: AMAEB01021

Status	NDDB Element Ranks	Other Lists
Federal: Endangered	Global: G5T1	CDFG Status:
State: Endangered	State: S1	

Habitat Associations

General: RIPARIAN AREAS ON THE SAN JOAQUIN RIVER IN NORTHERN STANISLAUS COUNTY.

Micro: DENSE THICKETS OF WILD ROSE, WILLOWS, AND BLACKBERRIES.

Occurrence No. 3 Map Index: 52111 EO Index: 52111

Occ Rank: Good
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: LLOYD, M, C. LEE, AND G. MONK 2003 (OBS)

Dates Last Seen
Element: 2003-02-03
Site: 2003-02-03
Record Last Updated: 2003-08-13

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.79532° / -121.31217°
UTM: Zone-10 N4184448 E648602
Area: 36.3 ac
Elevation: 9 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 02S
Range: 05E
Section: 04
Meridian: M
Qtr: NE

Location: OXBOW ON THE EAST SIDE OF THE SAN JOAQUIN RIVER, AT RIVER MILE 55, 2 MILES SW OF LATHROP

Location Detail: SITE ABUTS A PROPOSED DEVELOPMENT SITE (MOSSDALE LANDING).

Ecological: HABITAT CONSISTS OF COTTONWOOD RIPARIAN FOREST, DOMINATED BY FREMONT COTTONWOOD, WITH AN UNDERSTORY OF BLACKBERRY, WILD ROSE, STINGING NETTLE, BLESSED MILKTHISTLE, AND NON-NATIVE ANNUAL GRASSES. NON-NATIVE RATTUS RATTUS CAPTURED IN TRAPS.

Threat: EVIDENCE OF 6+ HOMELESS CAMPS, PAST WILDFIRES & AN UNAUTHORIZED GARDEN. CRISS-CROSSED WITH ROADS THAT ARE USED BY ORVS.

General: 2 CAPTURED EVENING OF 2 FEB 2003 AND 13 ADULTS CAPTURED MORNING OF 3 FEB 2003.

Owner/Manager: UNKNOWN

Occurrence No. 4 Map Index: 57409 EO Index: 57425

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: WINTERS, G. AND M. LEJA 2003 (PERS)

Dates Last Seen
Element: 2001-XX-XX
Site: 2001-XX-XX
Record Last Updated: 2004-10-14

Quad Summary: LATHROP (3712173/462D)
County Summary: SAN JOAQUIN

Lat/Long: 37.76414° / -121.31825°
UTM: Zone-10 N4180979 E648128
Area: 103.6 ac
Elevation: 10 ft
Mapping Precision: SPECIFIC
Symbol Type: POLYGON
Township: 02S
Range: 05E
Section: 16
Meridian: M
Qtr: XX

Location: PARIDISE CUT, BORDERED TO THE NORTHWEST BY I-205 AND ABOUT 1.3 MI SOUTHWEST OF MOSSDALE AND 2.8 MILES NORTHEAST OF BANTA

Location Detail: INDIVIDUALS PRIMARLY CAUGHT IN AREA IMMEDIATELY WEST OF UNION PACIFIC RAILROAD TRACTS WEST OF INTERSTATE 5

Ecological: SUITABLE HABITAT IS PRESENT IN SOME CHANNELS AND ADJOINING SLOUGH THAT FLOODS DURING PERIODS OF HIGH WATER FLOW. THERE ARE APPROXIMATELY 135 ACRES OF POTENTIAL RIPARIAN BRUSH HABITAT AT THE SITE, MOSTLY NEAR PROPOSED I-205 WIDENING PROJECT

Threat: PROPOSED INTERSTATE-205 WIDENING PROJECT.

General: 21 INDIVIDUALS CAUGHT IN 2001.

Owner/Manager: UNKNOWN

Trichocoronis wrightii var. wrightii

Wright's trichocoronis — Element Code: PDAST9F031

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G4T3	CNPS List: 2
State: None	State: S1.1	R-E-D Code: 3-3-1

Habitat Associations
General: MARSHES AND SWAMPS, RIPARIAN FOREST, MEADOWS AND SEEPS, VERNAL POOLS.
Micro: MUD FLATS OF VERNAL LAKES, DRYING RIVER BEDS, ALKALI MEADOWS. 5-435M.

Occurrence No. 6 Map Index: 24681 EO Index: 6904

Dates Last Seen
Element: 1914-09-27
Site: 1914-09-27
Record Last Updated: 1993-11-16

Occ Rank: Unknown
Origin: Natural/Native occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: BRANDEGEE, K. SN POM #58643 (HERB)

Quad Summary: LATHROP (3712173/4620)
County Summary: SAN JOAQUIN

Lat/Long: 37.78548° / -121.30951°
UTM: Zone-10 N4183364 E649121
Radius: 2/5 mile
Elevation: 20 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 02S
Range: 05E
Section: 3 Qtr: XX
Meridian: M

Location: BRIDGE ACROSS SAN JOAQUIN RIVER NEAR LATHROP.
Location Detail: MAPPED WHERE I-5 CROSSES SAN JOAQUIN RIVER.
General: HERBARIUM LABELS ARE ONLY SOURCE OF INFORMATION FOR THIS SITE. COLECTED SEVERAL TIMES IN THIS AREA BETWEEN 1892 AND 1914. AREA SHOULD BE FIELD CHECKED FOR PRESENCE OF SUITABLE HABITAT.
Owner/Manager: UNKNOWN

Xanthocephalus xanthocephalus

yellow-headed blackbird — Element Code: ABPBXB3010

Status	NDDB Element Ranks	Other Lists
Federal: None	Global: G5	CDFG Status:
State: None	State: S3S4	

Habitat Associations

General: (NESTING) NESTS IN FRESHWATER EMERGENT WETLANDS W/DENSE VEGETATION & DEEP WATER. OFTEN ALONG BORDERS OF LAKES OR PONDS

Micro: NESTS ONLY WHERE LARGE INSECTS SUCH AS ODONATA ARE ABUNDANT. NESTING TIMED WITH MAXIMUM EMERGENCE OF AQUATIC INSECTS.

Occurrence No. 5 Map Index: 53639 EO Index: 53639

Dates Last Seen
Element: 1894-05-10
Site: 1894-05-10

Occ Rank: Unknown
Origin: Natural/Naive occurrence
Presence: Presumed Extant
Trend: Unknown
Main Source: MVZ 2003 (MUS)

Record Last Updated: 2003-12-18

Quad Summary: LATHROP (3712173/452D)
County Summary: SAN JOAQUIN

Lat/Long: 37.81681° / -121.28368°
UTM: Zone-10 N4186878 E651057
Radius: 1 mile
Elevation: 15 ft

Mapping Precision: NON-SPECIFIC
Symbol Type: POINT

Township: 01S
Range: 05E
Section: 25 Qtr: XX
Meridian: M

Location: LATHROP

General: MVZ EGG SET #6846 COLLECTED 10 MAY 1894 BY A. WOLFE

Owner/Manager: UNKNOWN

ATTACHMENT B

Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

25 October 2007

Mr. Clifton Taylor
Richland Planned Communities
2220 Douglas Boulevard, Suite 290
Roseville, California 95661

RE: South Lathrop Sites 6A and 6B – Burrowing Owl Survey and Riparian Brush Rabbit Habitat Assessment

Dear Mr. Taylor:

ECORP Consulting, Inc. (ECORP) has conducted a burrowing owl and riparian brush rabbit habitat assessment within the 277-acre South Lathrop Sites 6A and 6B project area. The project site is located south of Highway 120, east of the Interstate 5 and Highway 560 Interchange, and south of Madruga Road - with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Section 3, Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47' 10" North and 121° 17' 40" West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).

The field study included surveys of all areas that represented potentially suitable habitat for burrowing owls (*Athene cunicularia*), and was conducted via visual observations on 19 October 2007 by ECORP biologist Tom Scofield. Binoculars (10x40 magnification) and a spotting scope (15-45X magnification) were used to assist with field identification and observations. Transects (approximately 30 meters apart) were walked through all non-agricultural open areas to identify and record potential burrowing owls and/or their burrows. California ground squirrel (*Spermophilus beecheyi*) burrows observed were investigated for the presence of owl use (e.g., fecal pellets, white-wash, or feathers). The riparian brush rabbit (*Sylvilagus bachmani riparius*) habitat assessment was conducted in conjunction with the burrowing owl survey on October 19, 2007, and included surveys of the entire property to determine if any areas represented potentially suitable habitat for brush rabbits.

During the survey, no burrowing owls or any sign of burrowing owls were observed on-site or adjacent to the project. The site, however, supports high densities of ground squirrels and associated burrows that provide potentially suitable habitat for burrowing owls. Particularly in non-agricultural areas of the project including earthen berms along dirt roadways, the adjacent railroad earthen berm to the south, and the San Joaquin River levee to the west.

The area of the project bounded by the San Joaquin River levee road on the east, the San Joaquin River to the west, the railroad/railroad bridge to the south, and Highway 120 to the

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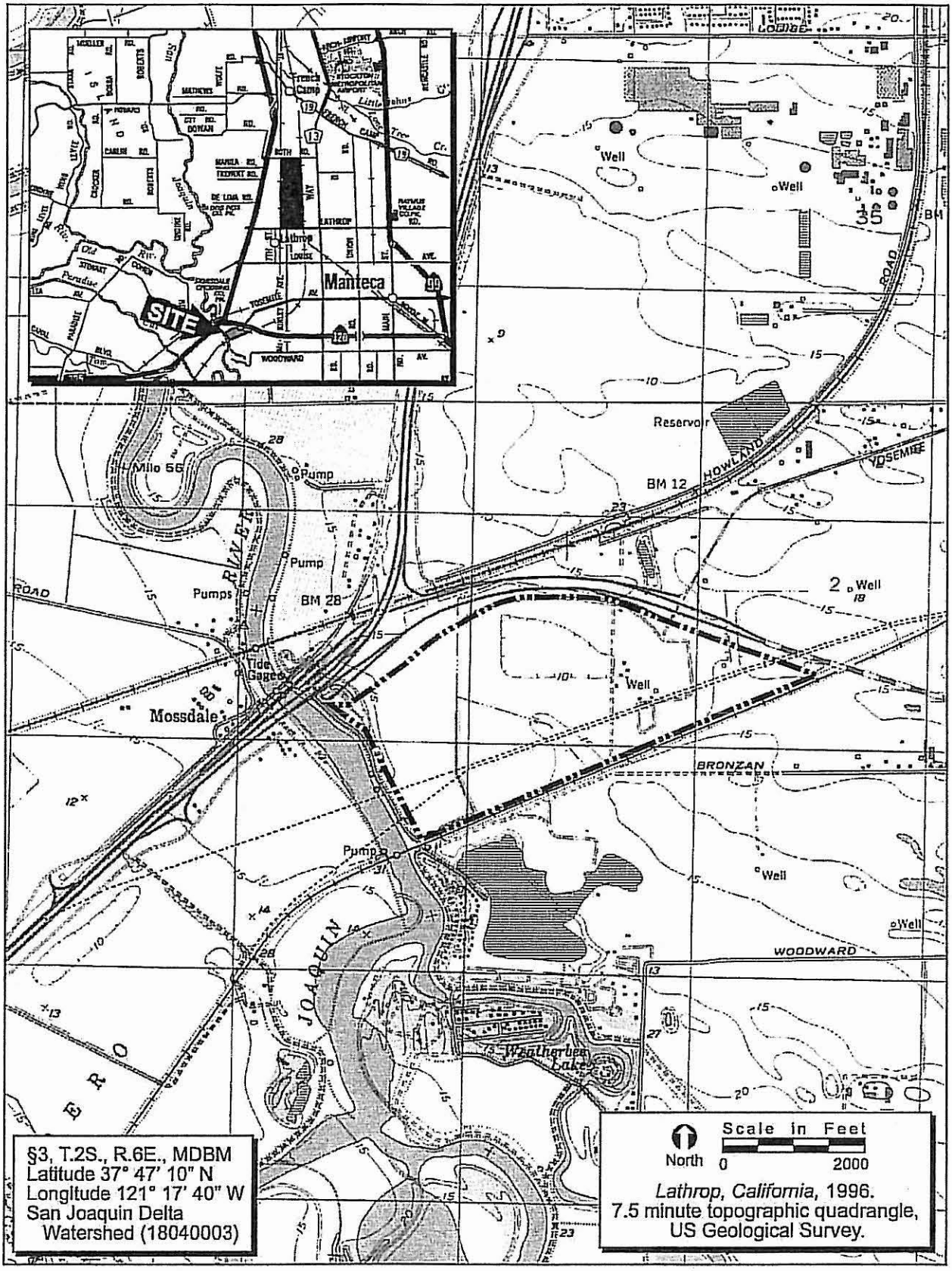

FIGURE 1. Project Site and Vicinity

2004-096 South Lathrop 6a & 6b

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north represents the only potentially suitable habitat for riparian brush rabbit on-site. The habitat within this narrow strip is highly variable in vegetative composition. The approximate northern half of this area is predominantly non native annual grasslands while the southern half is a mix of oak (*Quercus* spp.), cottonwood (*Populus* spp.), and willow riparian woodland with a variable understory including patches of non-native annual grassland, California wild rose (*Rosa californica)*, stinging nettles (*Urtica dioica*), and willow scrub (*Salix* spp.). As such, the southern portion of the interior (river side) levee area provides potentially suitable riparian habitat for riparian brush rabbit.

In conclusion, no burrowing owls, burrowing owl nests, or occupied burrows were observed during the 19 October 2007 burrowing owl survey visit at the South Lathrop Sites 6A and 6B project area. All raptors (owls, hawks, eagles, and falcons), including their nests, are protected from take pursuant to the Fish and Game Code of California Section 3503.5, and the Federal Migratory Bird Treaty Act, among other federal and state regulations. The California Department of Fish and Game (CDFG) recommends that a 250-foot radius buffer be placed around active burrowing owl nesting burrows during the active nesting period (approximately February 1 – August 31). During this period, no construction activities shall occur within the buffer area. Approval from the CDFG would be required for any activities within a 250-foot radius of burrowing owl nesting locations within the survey area. Once a qualified biologist has determined that burrowing owl nestlings have fledged, or become independent of their nest, construction activities may proceed within the identified buffer area(s), and individuals may be excluded from their burrows following accepted CDFG methodologies [CDFG *Staff Report on Burrowing Owl Mitigation* (1995)].

Riparian brush rabbits are generally known to inhabit dense, brushy areas of Valley riparian forests marked by extensive thickets of understory vegetation such as California wild rose, California blackberries (*Rubus ursinus)*, and willows. Although the riparian habitat on-site has been disturbed and is subject to ongoing disturbances including flooding, levee maintenance activities (e.g., rip rap placement), and invasion and control of exotic plant species (e.g. weed abatement for non-native annual grasses and forbs), the on-site area occurring on the interior levee side between the San Joaquin River and the levee road, will likely be considered riparian brush rabbit habitat by the United States Fish and Wildlife Service (USFWS). As such, project approval would likely require submittal of a Biological Assessment to the USFWS to address potential affects to riparian brush rabbit, and any additional federally listed species that may occur on-site (e.g., VELB) as part of the Section 7 consultation process.

If you have any questions feel free to contact me at (916) 782-9100.

Sincerely,

Tom Scofield
Wildlife Ecologist

ATTACHMENT C

Special-Status Plant Survey

Special-Status Plant Survey

For

South Lathrop 6A and 6B

San Joaquin County, California

29 August 2008

Prepared For:
Richland Planned Communities, Inc.

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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INTRODUCTION

At the request of Richland Planned Communities, Inc., ECORP Consulting, Inc. (ECORP) conducted a special-status plant survey for the approximately 277±-acre South Lathrop 6A and 6B site in San Joaquin County, California. The purpose of this survey was to identify and map the locations of special-status plant species observed within the site.

For the purposes of this report, "special-status species" refers to those plant species which:

- Are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act;
- Are listed or candidates for future listing as threatened or endangered under the California Endangered Species Act;
- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- Are considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (Lists 1B and 2);
- Are listed on the Review List and Watch List by CNPS (Lists 3 and 4); or
- Are listed as rare under the California Native Plant Protection Act (Fish and Game Code of California, Section 1900 et seq.).

Site Location

The South Lathrop 6A and 6B site is located south of Highway 120, east of the San Joaquin River, and north of the Western Pacific Railroad tracks with Guthmiller Road dissecting the project site in San Joaquin County, California (Figure 1. *Project Site and Vicinity*). The site corresponds to a portion of Sections 2 and 3 and an unsectioned portion of Township 2 South, and Range 6 East Mount Diablo Base Meridian (MDBM) of the "Lathrop, California" 7.5-minute quadrangle (U.S. Department of the Interior, Geological Survey 1996). The approximate center of the site is located at 37° 47′ 10″ North and 121° 17′ 40″ West within the San Joaquin Delta Watershed (# 18040003, U.S. Department of Interior, Geological Survey 1978).