



CITY OF RIO VISTA

Public Draft Initial Study – Mitigated Negative Declaration Snowtill Project

August 2020



Kimley»Horn

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Snowtill Project

Public Draft:

Initial Study – Mitigated Negative Declaration

City of Rio Vista
Planning Department
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Rio Vista, CA 95714
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August 2020

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- Appendix B - Biological Resources Memo
- Appendix C - Geotechnical Engineering Report
- Appendix D - Phase I Environmental Site Assessment

REPORT ORGANIZATION:

This document has been organized into the following sections:

Section 1.0 – Introduction and Purpose. This section provides an introduction and overview describing the conclusions of the Initial Study.

Section 2.0 – Project Description. This section identifies key project characteristics and includes a list of anticipated discretionary actions.

Section 3.0 – Initial Study Checklist. The Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.

Section 4.0 – Environmental Evaluation. This section contains an analysis of environmental impacts identified in the environmental checklist.

Section 5.0 – References. The section identifies resources used to prepare the Initial Study.

1.0 INTRODUCTION & PURPOSE

1.1 Purpose and Scope of the Initial Study

This Initial Study (IS) was prepared pursuant to the California Environmental Quality Act (CEQA) (Pub. Resources Code, Section 21000, et seq and written in accordance with the requirements of contained therein. This document was written for the Snowtill Project (proposed project) for the purpose of determining whether the proposed project may have a significant effect on the environment. A copy of this study is on file at the City of Rio Vista, Community Development Department, One Main Street, Rio Vista, CA 94571.

1.2 Lead Agency

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b) (1), “the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose.” Based on the criteria above, the City of Rio Vista (City) is the lead agency for the proposed project.

1.3 Cannabis Related Projects and Licensing/CEQA Review

The California Department of Food and Agriculture (CDFA), California Bureau of Cannabis Control (BCC), and California of Public Health (CDPH) have jurisdiction over the issuance of various licenses needed to legally cultivate, propagate, test, distribute and process commercial cannabis in California. Depending on the nature of a cannabis related project, the specific project elements, and the level of impacts CDFA may take on the role of the Lead Agency. In the instance of the proposed project, impacts to all resource areas were found to have No Impact, a Less than Significant Impact, or be Less than Significant with Mitigation.

Because of this, the City has taken the role of Lead Agency and therefore, circulated this document for review and approval. It should be noted that this document is available to CDFA, BCC, and CDPH for review and comment. In addition, as applicable, the project applicant would be required to show current compliance with all requirements set forth by these agencies prior to project initiation and throughout the operational period of the proposed project.

The CDFA certified a Programmatic Environmental Impact Report (PEIR) in November 2017, that analyzed the potential environmental impacts of cannabis licensing activities on a state-wide basis pursuant to the Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA). CalCannabis encourages local agencies to refer to the PEIR and specifically to Appendix J, which provided a CEQA Tiering Strategy as a guidance tool for local agencies in the preparation of CEQA documents. The PEIR concluded that environmental impacts on a state-wide basis would be less than significant based on CEQA thresholds, with the exception of potentially significant impacts to cultural and tribal resources. The tiering checklist has been reviewed in the preparation of this environmental document. At the time of the writing of this document, the PEIR was not available from CDFA because it was being updated for compliance with the Americans with Disabilities Act (ACT).¹

In light of the above and in terms of analysis approach, the proposed project is analyzed based on other guidance provided by the BCC, CDFA, and CDPF including but not limited to CCR Title 16 Division 42. Bureau of Cannabis Control, CCR Title 3. Food and Agricultural Division 8. Cannabis Cultivation Chapter 1. Cannabis Cultivation Program, and CCR Title 17 Division 1 Chapter 14, Manufactured Cannabis Safety Subchapter 1. General Provisions and Definitions. All applicable regulations were weighed against the needed land entitlements and construction of the proposed industrial scale building(s) designed for commercial cannabis production as disclosed in this IS/MND.

1.4 Environmental Analysis

This document has been prepared using the CEQA IS Checklist as approved by the City. The conclusions herein are based on CEQA standards, professional judgement, field review and available public documents. This IS constitutes substantial evidence supporting the conclusion that preparation of an EIR is not required prior to approval of the proposed project by the City and provides the required documentation under CEQA.

1.5 Initial Study Public Review Process

CEQA Statutes and Guidelines (California Code of Regulations [CCR], Title 14, §15000 et seq.), sets forth the rules, regulations, and procedures for the implementation of CEQA. The requirements and steps of preparation and adoption of a Negative Declaration (ND) or Mitigated Negative Declaration (MND), such as is needed for the proposed project are discussed in § 15070 through 15075 of the State CEQA Guidelines. The IS was prepared to provide an initial evaluation of the potential impacts of the proposed project. Based on that evaluation, it was determined that the proposed project would result in No Impact, a Less than Significant Impact, or the Impact would be Mitigated to Less than Significant.

After this was determined, a Notice of Intent to Adopt the MND based on State CEQA Guidelines § 15072, was prepared and submitted to the State Clearinghouse for filing. The document was made available for

¹ Correspondence with CDFA, May 12, 2020.

a 30-day public review period from August 28, 2020 through September 28, 2020, during which time the public, interested parties, stakeholders, and any state or local agency could provide comment on the document. The Initial Study/Mitigated Negative Declaration may be viewed at the City of Rio Vista website at the following link: <https://www.riovistacity.com/ceqa-reports/>

Written comments on this Initial Study/Mitigated Negative Declaration should reference the “Snowtill project,” and be addressed to the Lead agency at the following name and address:

City of Rio Vista Planning Department
Attn: Robert Hickey - City Manager
One Main Street
Rio Vista, CA 95945

or, rhickey@ci.rio-vista.ca.us

The City of Rio Vista (City) as the Lead Agency for this project, will consider comments received and in accordance with (State CEQA Guidelines § 15074(b)), decide whether to adopt the MND prior to taking action to approve the proposed project. If the MND is adopted and the proposed project is approved, the City also will adopt a mitigation monitoring or reporting program (MMRP), which details the mitigation measures, timing of implementation, and responsible party for implementation and verification it was implemented.

1.6 Summary of Findings

The IS identified potentially significant effects on the environment. However, the proposed project includes mitigation measures (see mitigation measures below, which avoid or mitigate the effects) to a point where no significant effects would occur. There is no substantial evidence that the proposed project may have a significant effect on the environment. The following reasons support these findings:

1. The proposal is a logical component of the existing land use pattern of this area.
2. Identified adverse impacts are proposed to be mitigated by construction best practices, pre-construction surveys and standard conditions.
3. The proposed project is consistent with the adopted goals, policies and land uses of the City of Rio Vista General Plan and Municipal Code.
4. The proposed project is consistent with the reuse and redevelopment plan for the former City of Rio Vista Municipal Airport and the City’s Cannabis Ordinance.
5. With the application of the following mitigation measures, the proposed project will not have any significant impacts on the environment:

Mitigation Measures

Air Quality

MM AQ-1: Construction Dust Mitigation. The applicant shall implement the following best practices during construction:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Haul trucks shall maintain at least 2 feet of free board.
- Cover all trucks hauling dirt, sand or loose materials.
- Apply non-toxic binders (e.g. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.
- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Plant vegetative ground cover in disturbed areas soon as possible.
- Cover inactive storage piles.
- Sweep access road if visible soil material is carried out from the construction site.
- Treat accesses from the paved road with a 6 to 12-inch layer of wood chips or mulch.
- Treat accesses from the paved road with a 6-inch layer of gravel.

MM AQ-2: Prohibition of Open Burning of Cannabis Material. The applicant and individual license holders shall be prohibited from open burning of cannabis materials as part of project operations.

Biological Resources

MM BIO- 1: If construction activities are planned to begin after March 1, a preconstruction breeding survey for Swainson's hawks will be conducted throughout areas of suitable nesting habitat within 0.25 miles of the project site. If a Swainson's hawk nest is observed within 0.25 mile of planned construction activities, CDFW will be contacted to determine whether project-related activities are likely to impact the nesting pair and whether any avoidance and minimization measures must be established to avoid impacts.

Cultural Resources

MM CUL- 1: During ground disturbing activities, if any archeological or tribal resources (e.g., evidence of past human habitation or fossils) are found, the project applicant and/or its contractor shall cease all work within 50 feet of the discovery and notify the City of Rio Vista Community Development Department, Planning Division immediately. The project applicant and/or its contractor shall retain a qualified archaeologist, paleontologist and Native American representative to evaluate the finds and recommend appropriate resource protection plan for the inadvertently discovered resource(s). The City and the applicant shall consider the recommendations and agree on implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. (Health and Safety Code Section 7050.5).

MM CUL- 2: If human remains either informally interred or associated with a burial (i.e. grave goods) are discovered during construction, the project applicant and/or its contractor shall cease all work within 50 feet of the find and notify the City of Rio Vista Community Development Department, Planning Division and the County Coroner. Notifications shall occur immediately and in accordance with California Health and Safety Code Section 7050.5. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission and shall follow the procedures outlined in CEQA Guidelines Section 15064.5(d) and (e) regarding treatment and disposition of recovered cultural items. The Commission will designate a Most Likely Descendant (MLD) who will be authorized to provide recommendations for management of the Native American human remains and any associated materials or objects (Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5).

Geology and Soils

MM-GEO-1: Prior to issuance of a grading permit, the applicant shall show to the satisfaction of the City that a geotechnical engineer has been retained to observe and test soils during grading operations. Observance and testing shall be done to ensure soils are properly mixed. If fill materials are imported, the materials shall be free of vegetation, free of debris, and free of fragments large than three inches. Other materials shall not be used without approval of the geotechnical engineer. The City shall ensure that all other recommendation contained in the Geotechnical Engineering Report related to Site Preparation, Fill Material, and Site Compaction, are included to grading plans and included to the notes.

MM GEO-2: If any paleontological resources are encountered during ground-disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and City are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Hydrology and Water Quality

MM HYD-1: Construction Water Quality Plan. Prior to issuance of any grading permit, the applicant shall submit to the satisfaction of the City Community Development Department, a Storm Water Pollution Prevention Plan (SWPPP) that satisfies the requirements of the National Pollutant Discharge Elimination System (NPDES) and State General Permit for construction. The SWPPP shall incorporate Best Management Practices (BMPs) to control runoff and sedimentation in accordance with all CVRWQCB as well as City requirements. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly;
- Protecting existing storm drain inlets and stabilizing disturbed areas;
- Implementing erosion controls;
- Properly managing construction materials; and
- Managing waste, aggressively controlling litter, and implementing sediment controls

1.7 Initial Study Public Review Process

As required by Public Resources Code Section 21081.6 (a)(1), a mitigation monitoring and reporting program has been prepared for the proposed project in order to monitor the implementation of the mitigation measures that have been adopted for the proposed project. Any long-term monitoring of mitigation measures imposed on the overall development will be implemented through the Mitigation Monitoring and Reporting Program.

2.0 DESCRIPTION OF PROPOSED PROJECT

2.1 Location, and Setting

Project Location

The Snowtill Project (proposed project) is located at 40 Richard Brann Drive, in the City of Rio Vista, County of Solano, in the State of California. The project site is approximately 1.48 acres is sited on Assessor parcel number (0178-230-180) and would occur within the City of Rio Vista in Solano County, California. *Figure 1 – Regional Location Map*, shows the project site within the City and region in relation to surrounding cities, *Figure 2 – Local Vicinity Map*, shows the project site as well as surrounding land uses; *Figure 3 – Aerial Site View*, shows the project site on a close up aerial view as well as surrounding roadways, *Figure 4 – Project Site Plan*, provides a diagram of the proposed improvements, *Figure 5 – Project Site Overlay* shows an aerial image with the overlain proposed structures.

Project Setting

The proposed project would be located within the boundaries of the former City of Rio Municipal Airport. Much of the former buildings and runways have been removed or demolished and the site is designated by the City of Rio Vista (City) for reuse and redevelopment as a Business Park. The proposed project consists of approximately 1.48 acres within the former airport property. A portion of the project site is occupied by an overgrown remnant runway that splits the site diagonally from the southwest to northeast. The runway occupies approximately 5,400 sf of the project site. The new City of Rio Vista municipal airport is located approximate two miles to the northwest and the project site and former airport is the focus of City lead efforts for redevelopment and reuse.

The proposed project occurs on previously disturbed but currently undeveloped and unoccupied land. There are no current on-site operations. The project site is on flat ground and has no significant landform features. The project site slopes slightly downward to the east falling approximately two to three feet over a distance of approximately 400 feet. The portion of the runway within this site is partially covered with dirt and vegetation. The balance of the site consists of bare soil and upland, ruderal vegetation including grasses and shrubs.

There are no trees or natural landforms such as rock outcroppings or hillsides on the project site. The project site does not contain any stream channels, waterways, standing water, or wetlands. Refer to Figure 2 and 3, above, and *Figure 6 –Aerial Photograph 1993*, and *Figure 7 – Historic Aerial Photograph 2011*.

Surrounding Land Uses

Surrounding uses include existing industrial uses to the east, vacant but disturbed land and industrial uses to the north, Industrial Court, disturbed land, industrial uses to the west, and previously disturbed land and industrial uses to the south. The surrounding land uses are consistent with the sites former use as an airport and ongoing efforts to repurpose the area for business and industrial uses. The adjoining northeastern property consisted primarily of vacant land with sections of the runway through 2006 when the existing buildings were developed. The adjoining southeastern property consisted primarily of vacant land with sections of the runway through 2006 when the existing buildings were developed. The adjoining

southwestern property consisted of vacant land through 2006 when a portion of the existing road was developed. The adjoining northwestern property consisted of undeveloped land through 2016.

Requested Approvals

The proposed project is expected to require the following approvals:

- Conditional Use Permit
- Site and Architectural Approval for proposed structures
- Adoption of a Development/Operating Agreement
- Cannabis Cultivation and Manufacturing Licenses

The project applicant (Snowtill) is requesting approval of a cannabis project pursuant to Chapter 17.70 of the City of Rio Vista Zoning Ordinance relating to Cannabis regulations. Approval of the proposed project would allow for development on an approximate 1.48-acre site to be developed with a total of approximately 30,000 sf of new structures to be used for indoor cultivation, manufacturing, and distribution.

The project site is located in an urbanizing area and would utilize municipal water supplies. The proposed project would not result in diversion of surface waters for irrigation, impacts to water bodies or habitat, or other issues that would trigger additional State or federal resource permitting beyond what is already required for water quality conformance.

Project Description

The proposed project includes the construction of two approximate 15,000 square foot (sf) buildings that would be constructed in two phases. Phase I would include one half of the overall approximate 30,000 sf facility within the southwesterly portion of the project site. A 20-foot (') fire access lane would be installed on the southside of the structure and would provide emergency access to the northerly side. The 20' fire lane would continue around the building and link to the 20-space parking lot (with three Americans with Disability Act (ADA) compliant stalls on the northern boundary of the site. This design would provide emergency access to all sides of the project site. The proposed approximate 15,000 sf building as part of Phase II would be located between the parking lot on the northwest and Phase I structures in the southeast portion of the site. The structures would be separated by a central breezeway which would provide access to the individual buildings.

The buildings would be single story industrial prefab metal frame on slab. Both buildings would be approximately 10'2" at the bottom of the roof truss. The top of the roof would extend slightly above this height and the building also include parapets to provide for articulation, to break up the massing of the structures, and conceal rooftop HVAC and other equipment. The proposed project would be beige in color, and consistent in both color and design compared to other buildings in the industrial area. *Figure 8 – Site Design*, shows the proposed structures overall lay of the project site.

The Phase I structure would be approximately 139' by 101' and the Phase II structure would be approximately 123' by 101'. The interior of the two buildings would be separated into various rooms for cultivation (flower rooms), mother rooms, storage, restrooms, locker-room, rooms for drying and trimming cannabis, conference rooms, two lobby's, break room, a packaging room, office space, service corridors and hallways, and an air vestibule.

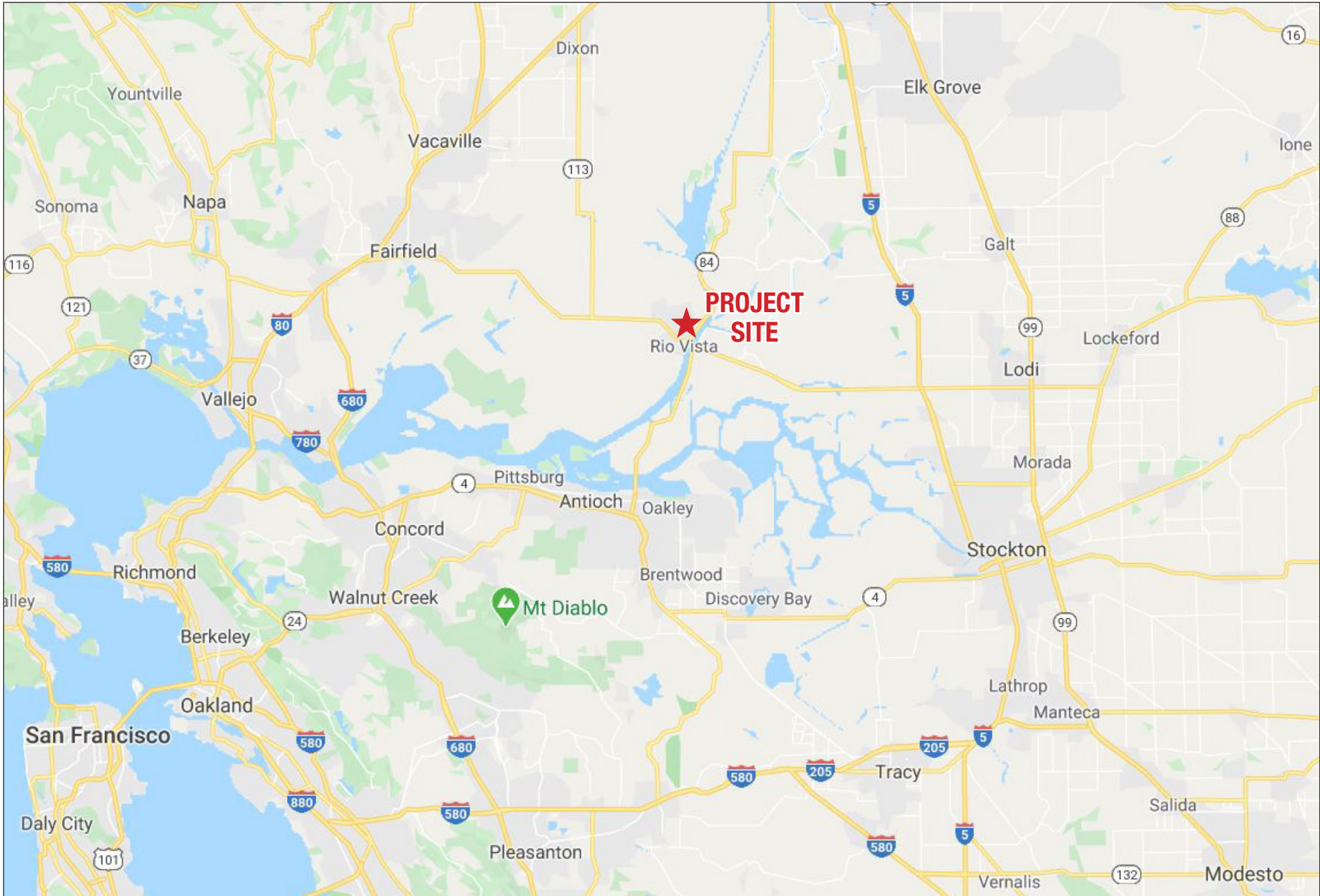


FIGURE 1: Regional Location Map
Snowtill Project

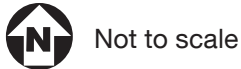




FIGURE 2: Local Vicinity Map
Snowtill Project

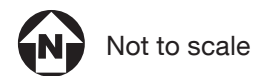
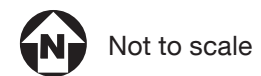




FIGURE 3: Aerial Site View
Snowtill Project



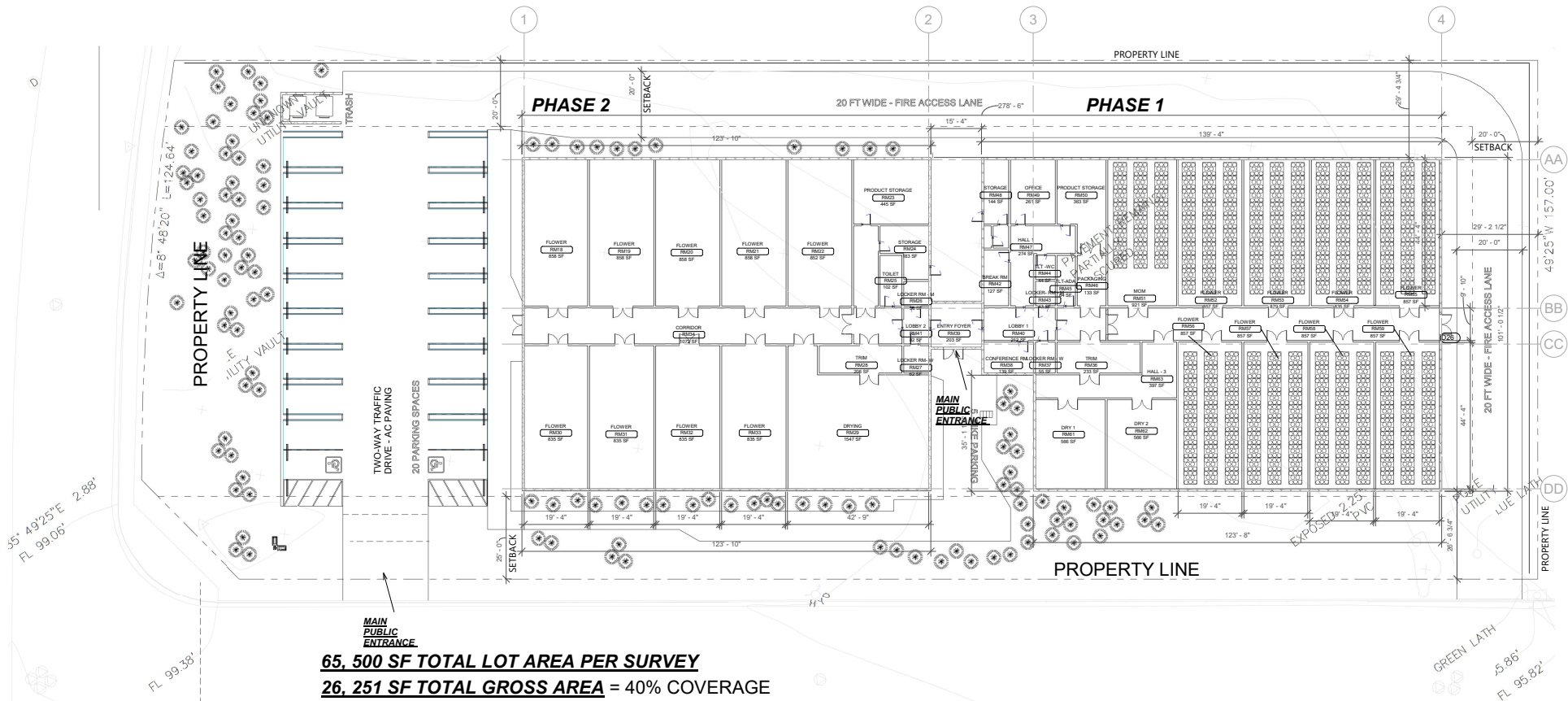


FIGURE 4: Project Site Plan
 Snowtill Project

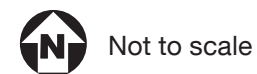




FIGURE 5: Project Site Overlay
Snowtill Project

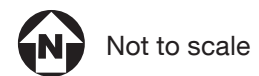




FIGURE 6: Aerial Photograph – 1993
Snowtill Project

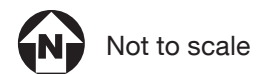


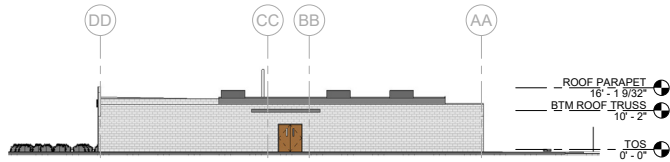


FIGURE 7: Aerial Photograph – 2011
Snowtill Project

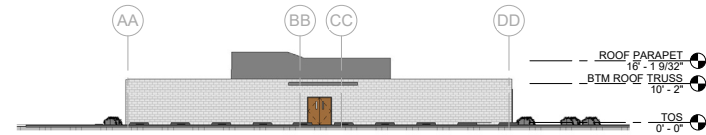
Figure 8 – Conceptual Site Design, shows the basic design of the project, and Figure 9 – Phase I Floor Plan shows the layout of the Phase I area. Phase II would have a similar layout but the diagram has not been prepared. Table 1: Phase I and II Interior Space, shows the proposed square feet of each room.

Table 1: Phase I and Phase II Interior Space

Phase I			Phase II		
Room No.	Room Type	Area (sf)	Room Number	Type	Area (sf)
43	Locker room (men)	43	18	Flower	858
44	TLT-WC	44	19	Flower	858
45	TLT-ADA	84	20	Flower	858
46	Packaging	133	21	Flower	858
47	Hall 1	274	22	Flower	852
48	Storage	144	23	Product Storage	445
49	Office	261	24	Storage	183
50	Product Storage	363	25	Toilet	102
51	Mom	921	26	Locker room (men)	56
52	Flower	857	27	Locker room (women)	62
53	Flower	879	28	Trim	206
54	Flower	835	29	Drying	1,547
55	Flower	857	30	Flower	835
56	Flower	857	31	Flower	835
57	Flower	857	32	Flower	835
58	Flower	857	33	Flower	835
59	Flower	857	34	Corridor	1,072
60	Service Corridor	989	36	Trim	233
61	Dry 1	566	37	Locker-room (women)	55
62	Dry 2	566	38	Conference	139
63	Hall -3	397	39	Entry Foyer	203
64	Air Vestibule	145	40	Lobby 1	212
Vestibule	Drying Room	0	41	Lobby 2	82
			42	Break Room	127
Total:		11,786		Total:	12,348



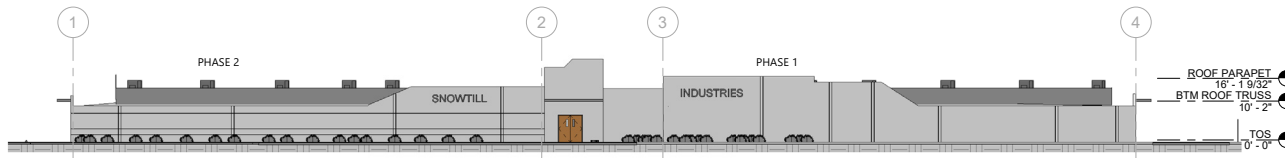
3 RIO VISTA - EAST ELEVATION - OVERALL
Scale: 1/16" = 1'-0"



4 RIO VISTA - WEST ELEVATION - OVERALL
Scale: 1/16" = 1'-0"



1 RIO VISTA - NORTH ELEVATION - OVERALL
Scale: 1/16" = 1'-0"



2 RIO VISTA - SOUTH ELEVATION - OVERALL
Scale: 1/16" = 1'-0"

FIGURE 8: Conceptual Site Design
Snowtill Project

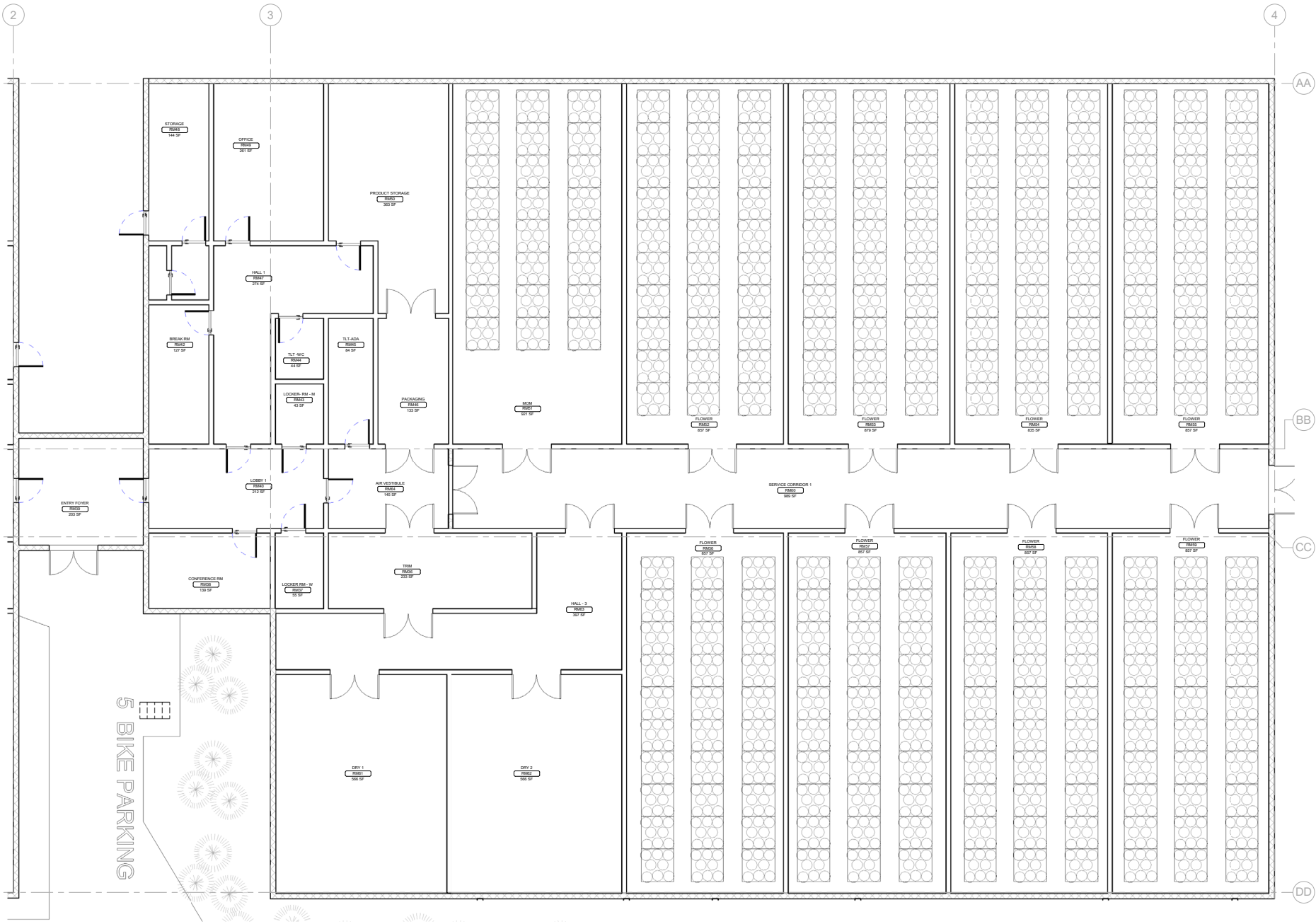
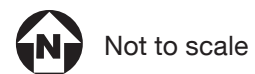


FIGURE 9: Phase I Floor Plan
Snowtill Project



Operations and Methodology

The proposed project would operate during normal business hours (8:00 a.m. to 5:00 p.m.) and typically be open from Monday through Friday. The business; however, depending on the timing of the cultivation cycle maybe be open on weekends and employees may be on-site for longer periods of time. The proposed project would be operated by two owners working full-time, three additional full-time employees, and up to eight part time employees depending on workload. It is anticipated that workers would come from the local labor pool from the City of Rio Vista and surrounding areas. Assuming that the 13 total employees travel to and from work every day and all 13 travel off-site for lunch every day, the total trips would be approximately, 58 daily worker trips with these employment considerations.

After harvesting the cannabis, it would be moved to the trimming areas within the structures, converted to saleable items, and prepared for distribution. As shown in Table 1, above, the proposed project would include approximately 6,856 sf for cultivation, 1,132 sf for drying, and 133 sf for packaging during Phase I. Phase II would include 7,624 sf for cultivation, 439 sf room for trimming, and 1,547 sf for drying. Once the processing is completed, products would be stored on-site until testing is complete and the products are distributed to off-site retail locations. No retail point of sale is proposed as part of the proposed project.

The proposed project would include cannabis cultivation, distribution, and non-storefront retail. The proposed project would require approval by the California Department of Farming and Agriculture (CDFA), and California Bureau of Cannabis Control (BCC). The structures constructed during Phase I would be used for cultivation for flowers, a drying room, a trimming room, product storage, restrooms, etc. The Phase II structure also would include interior areas used cultivation, drying rooms, trimming, office, storage, space for packaging, etc.

Snowtill utilizes a unique cannabis cultivation method that was developed as an all-natural cultivation process. It does not use any form of chemicals or fertilizers. This style of cultivation uses living soil that provides the plants with all their needed nutrients resulting in a superior product. This methodology eliminates water runoff and need for wastewater disposal from irrigation, which results in near zero waste during the entire production cycle, lowering overall production costs..

To manage odors and maintain indoor air quality, the proposed project would a system provided by Green Environmental Technologies (GET). The GET indoor air quality system would be used to disinfect viruses, and control bacteria, mold, and fungi both air born and on surfaces The GET system included photo catalysis and radiant catalytic ionization that are mounted in the heating ventilation and air conditioning (HVAC) system. The GET system uses air moisture and oxygen to produce a plasma that is continuously mixed with the ambient air that oxidizing volatile organic carbons (VOCs), and kills biological compounds (viruses, bacteria, mold, and fungi) as they pass through the HVAC system and enter each room environment. (GET, 2020).

Landscaping and Pedestrian Access

Approximately 10% of the overall lot would be landscaped with drought tolerate plants on a drip system to use as little water as possible. The plant palate would consist of drought tolerant species in accordance with City requirements and would likely consist of ground covers such as silverberry (*Elaeagnus pungens*), hesperaole, lantana hybrids, glossy privet (*Ligustrum lucidum*), and shrubs such as Mexican sage (*Salvia*

leucantha). A final landscaping plan would be submitted to the City prior to project approval. The northwest and southerly sides of the structure would be landscaped. These sides of the building front to area roadways and the northerly and southeasterly sides of the site adjoin existing industrial uses or vacant land that would be developed with similar uses. The balance of the site would be used for walkways and site access. The main project entrance would be within the breezeway which would be connected to the parking lot via a sidewalk on the southerly side of the building.

Construction

The project site is flat and covered with upland ruderal vegetation and a portion of a runway used for previous operations of the former Rio Vista Municipal Airport. Construction activities would involve the use of heavy equipment for ground preparation, trenching, staking and flagging, installation and extension of on-site utility systems, and typical industrial building techniques needed to erect the building and improve the interior. Construction would require the use of bulldozers, scrapers, and excavators to grade and level the site.

Grading would be required to remove and grub off the existing vegetation. The portion of the runway within the project site would be demolished and removed. Based on the age and design of the remnant runway, it would consist of approximately 4" of surface concrete/asphalt underlain by approximately 10" of existing base material. Minor amounts of grading and excavation would create a level site on which the proposed concrete slab and piers could be installed. The proposed project would result in the grading to a depth of approximately two feet with approximately 4,054 yards of cut and fill and grading operations would include mixing and watering of the soil to enable compaction with equipment such bulldozers and compaction wheels (sheep's foot) needed to create building pads enabling installation of the foundation.

The runway is approximately 252' in length and approximately 22' wide and would require removal and account for approximately 68 yards of asphalt/concrete debris that would be crushed. Approximately 172 yards of the base material that may be graded back into the site. The asphalt/concrete material would be hauled off-site and is anticipated to be crushed to be reused. Overall grading is anticipated to reach a depth of approximately three feet.

Concrete trucks and other paving equipment would be used to haul materials and create the driveways, parking areas, interior circulation lane(s) for guests and emergency vehicles, and other hardscape including pedestrian pathways. Construction for Phase I of the proposed project is anticipated to begin in late 2020/Early 2021 and last approximately six months. Phase II is anticipated to begin approximately one year after Phase I and require 6-months to complete.

Utilities

The proposed project would tie into existing utility lines including, water, electricity, natural gas, wastewater, and storm water drainage facilities already constructed or planned as part of the redevelopment efforts of the former airport site. Extension of utility lines to areas not planned for development would not occur and all extension would occur within other adjoining areas that have been previously disturbed as part of airport operations or as part of on-going redevelopment efforts.

Water and Wastewater

The proposed project would be served by the City of Rio Vista for potable water which is derived from seven groundwater wells and treated at one of three treatment stations. Non cultivation wastewater, from on-site plumbing from restrooms and other fixtures would be piped from the project site for disposal of at the Beach wastewater treatment plant (BWWTP) located approximately 1.5 miles to the south. The proposed cultivation methodology including watering needed for plants would be substantially reduced compared to traditional irrigation techniques. Any extra water from watering would be captured, and water that is not reusable would be stored onsite in secure containers until transported to a wastewater treatment plant capable of disposing of the wastewater.

Energy

Pacific Gas & Electric Company (PG&E) would supply electricity and natural gas to the proposed project. The majority of energy needed for the proposed project would come from lighting. The proposed project would utilize the Sun System Flower Power 630-watt light emitting ceramic (LEC) fixtures which are available in either 120 or 240 volt and 315-watt LECs for mother plants.

Solid Waste

Solid waste would be disposed of by the Mt. Diablo Resource and Recovery (MDRR). Waste service is anticipated to occur up to two times per week, and non-recyclable waste would be transported to the Keller Canyon Landfill. Green waste would be transported to the Recology Recycling and compost facility in Vacaville.

General Plan and Zoning Code

The proposed project property occupies 1.48 within the City of Rio Vista. For this reason, consistency with the City General Plan and Zoning Code are the most relevant local planning documents related to project review. According to the City of Rio Vista General Plan (RVGP), the project site has a General Plan land use designated as Industrial/Employment Limited (I-E-L) and is zoned as Business Park (B-P). Under this designation and zoning, cannabis cultivation and related facilities are permitted uses subject to City approval.

The Rio Vista Municipal Code seeks a coordinated approach to development in the Business Park Area. As such, the Code specifically does not allow outdoor cultivation, requires proposed indoor cultivation to go through the applicable planning process and obtain a CUP, building permit, and limits cannabis cultivation in proximity to residences, school, etc. Other requirements of the code include security plans, odor and control and ventilation plans, access restrictions, limitation on lightings, and other measures to ensure safe operation of the facilities.

3.0 INITIAL STUDY CHECKLIST

- 1. Project Title:** Snowtill
- 2. Lead Agency:** City of Rio Vista
One Main Street
Rio Vista, CA 94571
- 3. Contact Person:** Robert Hickey – City Manager City of Rio Vista rhipkey@ci.rio-vista.ca.us>
- 4. Date Prepared:** August 28, 2020
- 5. Study Prepared by:** Kimley-Horn
555 Capital Mall, Suite 300
Sacramento, CA 95814
- 6. Project Location:** 40 Richard Brann Drive
Rio Vista, CA 94571
- 7. Project Sponsor:** JNL Capital LLC
Oakland, CA
- 8. General Plan:** Industrial/Employment Limited (I-E-L)
- 9. Zoning** Business Park (B-P)
- 10. Project Description:** The project site occupies approximate 1.48 acres and is located on the former site of the Rio Vista Municipal Airport which is planned for reuse and redevelopment. The proposed project includes construction of two structures in two phases, with each structure being approximately 15,000 sf. The proposed project includes uses for cultivation and flowering, drying, trimming, storage, locker rooms, break room, conference room, hallways and corridors, and entry foyer and lobby. The proposed project would be accessed via Richard Brann Drive with one public access and on the north and an emergency access driveway on the south.
- 11. Surrounding Land Uses:** The project site within the former Rio Vista Municipal Airport business park. The business park is intended for industrial uses. The project site is adjacent to an existing industrial use to the north west, and undeveloped land to the north, west, and east.
- 12. Public Comment Period** August 28, 2020 to September 28, 2020.

13. Public Agency Approval Needed: Central Valley Regional Water Quality Control Board (CVRWQCB)
Yolo-Solano County Air Quality Management District (YSAQMD)
State Water Resources Control Board (RWQCB)
State Bureau of Cannabis Control
CalCannabis Cultivation Licensing of the California Department of Food and Agriculture (CDFA)
Manufactured Cannabis Safety Branch of the California Department of Public Health (CDPH)

14. California Native American Tribe Consultation: On July 8, 2020 the City of Rio Vista, acting as the CEQA Lead Agency informed five tribes including the Cortina Rancheria – Kletsel Dehe Band of Wintun Indians; Guidiville Indian Rancheria; United Auburn Indian Community of the Auburn Rancheria; Confederated Villages of Lisjan; and Yocha Dehe Wintun Nation.

Note: The purposed of conducting early consultation as part of the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code Section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code Section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code Section 21082.3(c) contains provisions specific to confidentiality.

4.0 ENVIRONMENTAL ANALYSIS

4.1 Aesthetics

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
a) Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
b) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
c) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

a) *Have a substantial adverse effect on a scenic vista?*

The proposed project is located within the City of Rio Vista on the site of the former Rio Vista Municipal Airport. The project site is surrounded by vacant and previously disturbed land, industrial uses, and areas planned for and undergoing redevelopment with industrial uses. The site is flat and is surrounded by flat land with no significant landforms. The project site and surrounding areas do not provide views of scenic resources, nor is the site or surrounding areas considered scenic resources.

The Sacramento River is located approximately 0.5 miles to the southwest, but due to the distance and minimal elevation change, is not visible from the project site. Similarly, due to the elevation of the riverbank and intervening structures, the project site is not visible from the Sacramento River. The City of Rio Vista General Plan (RVGP) notes the importance of enhancing the waterfront as a scenic resource.

Because the proposed project would not affect the river or affect views from the river, the proposed project would not conflict with this scenic element of the RVGP. Therefore, the proposed project would not affect any scenic vista and no impacts would occur.

- b) *Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?*

The proposed project is not located in proximity to any scenic highway. The nearest scenic highways in Solano County are Routes 37 and Route 29 near the city of Vallejo approximately 30 miles to the west (Caltrans, 2020). In addition, the proposed project does not contain any trees, rock outcroppings or historic buildings. Therefore, no impacts would occur.

- c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project site is located in an area designated by the RVGP and Rio Vista Zoning Ordinance for industrial uses within a business park. The project site occupies a site previously used as the Rio Vista Municipal Airport and contains the remnants of a secondary runway. The areas surrounding the project site also are either developed with industrial uses including warehouses and construction yards or are currently undeveloped but anticipated to be developed with similar uses consistent with the RVGP and zoning.

The proposed project would be consistent with the surrounding uses and would not result in a visual contrast with existing buildings or planned development. The proposed project site occupies approximately 1.48 acres within the redevelopment areas, and would consist of two single-story metal sided buildings developed in two phases. This design is consistent with other existing structures in the vicinity. In addition, the proposed project would include drought tolerant landscaping covering approximately 10% of the site consistent with City requirements. The balance of the site would consist of driveway accesses and an emergency access lane. Therefore, the proposed project would not conflict with the visual character of the surrounding areas and would not be incompatible with other uses as viewed from surrounding uses. Impacts in this regard would be less than significant.

- d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The proposed project would introduce new indoor sources of lighting associated with the indoor growing operations, as well as outdoor lighting for security, parking, and pedestrian walkways. The proposed project would eliminate spill light from the interior of the structure by including a minimal number of windows, and where windows are proposed, use materials that would prevent nighttime light from escaping. Exterior lighting in the parking lot, walkways, and security lighting would comply with the City of Rio Vista Municipal Code 17.74.060 Performance standards related to exterior lighting. Accordingly, exterior lighting would be adequate to provide for security purposes and sufficient to provide illumination and clear visibility to all outdoor areas, but would be designed to minimize spillover to adjacent properties. The lighting would be stationary, directed away from adjacent properties and public rights-of-way, and would be of an intensity compatible with the surrounding areas. Because the project site is located within an industrial area, and is not adjacent to any existing neighborhoods, impacts to residential areas would

not occur. With the incorporation of the listed lighting standards, light impacts in the vicinity of the proposed project would be minimal and less than significant.

The proposed structure would be metal sided and coated. The coating would be designed to minimize glare and would be consistent with the City of Rio Vista Municipal Code Section 17.44.060 that outlines performance standards related to glare. This section states that glare is not allowable in such amounts as to adversely affect the surrounding area or adjoining premises and cannot be a dangerous or objectionable element of a project.

Any signage on the building would comply with Section 17.56.030 Administrative regulations. This section limits illumination and disallows excessive brilliance. This section states that no sign or exterior lighting shall be permitted that produces an unreasonable glare or light spillage onto other properties or into areas not intended to be lit, or that is more intense than is necessary to adequately illuminate the sign or exterior area. Should any illuminated signage be used, the proposed project would comply with this section.

Conformance with these codes would ensure that the proposed illumination provides adequate lighting for safety and security but at the same time would reduce light trespass, glare, skyglow impacts, and offensive light sources as viewed from off-site areas. Conformance with the codes would prevent inappropriate, poorly designed or improperly installed outdoor lighting and ensure lights have fixture shields, are directed, are of uniform intensities, and incorporate light controls, which has a secondary benefit of promoting energy efficiency. These standards would reduce effects at adjoining properties, on public rights-of-way, and reduce sky glow. To ensure the proposed project conforms to all lighting requirements, the City would verify that the lighting plan conforms to all applicable City. Therefore, the proposed project would not create a new source of substantial light or glare and it would not adversely affect day or nighttime views in the area. Impacts in this regard would be less than significant.

Cumulative Impacts

The proposed project is not located in an area with significant scenic resources, is not located within the vicinity of scenic highway, would not substantially conflict with the existing or planned visual environment, and would not result in a substantial production of light and glare. Cumulative impacts associated with aesthetic resources are typically associated with a project site and immediate surroundings. Considering the proposed project as well as past, present, and reasonably foreseeable projects are within the same visual environment of the business park and are planned for industrial uses, the additive nature of impacts are anticipated to be less than significant. Accordingly, other projects in the vicinity would be anticipated to have a similar designs and blend into the planned industrial nature of the business park. Lastly, all other projects would be required to conform to the same requirements related to production of light and glare, thereby reducing their individual effects. Therefore, while the proposed project and other projects would result in changes to the visual environment, with the measures listed above, the taken in sum, cumulative impacts would remain less than significant.

4.2 Agriculture and Forestry Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</p>				
<p>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?</p>				X
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>				X
<p>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))?</p>				X
<p>d) Result in the loss of forest land or conversion of forest land to non-forest use?</p>				X
<p>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?</p>				X

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?*

The proposed project is located on a site in an area that was previously used as the Rio Vista Municipal Airport, constructed in the 1950's. Since that time, the project site was not used for agricultural purposes.

Based on the California Department of Conservation (CDOC) Farmland Mapping and Monitoring Program (FMMP), the project site is located on “Urban and Built-Up Land.” Urban and Built-up land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10 acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. Therefore, the proposed project would not convert any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (CDOC, 2016).

The project site is located in an area designated by the RVGP for industrial uses and by the Zoning Ordinance as a business park. The project site was previously used as a municipal airport and contains the remnants of a runway. The runway occupies approximately 5,400 sf of the site. The project site is not used for agricultural purposes. Considering this and the above listed factors, the proposed project would not result in the conversion of an agricultural resource and impacts would not occur.

b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

According to the RVGP, the project site has a land use designated as Industrial/Employment Limited (I-E-L) and is zoned as Business Park (B-P). Under this designation and zoning, cannabis cultivation and related facilities are permitted uses subject to City approval.

The project site does not contain any land designated as farmland and is not actively farmed. The project site is not under an active Williamson Act Contract, is not eligible for a Williamson Act contract and is not adjacent to nor would it affect the function of any land under a Williamson Act contract. Therefore, impacts in this regard would not occur.

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))?*

As discussed in discussion a) and b) above, the project site is designated by the RVGP for use as Industrial/Employment Limited (I-E-L) and is zoned as Business Park (B-P). The proposed project does not involve or require a rezone and the proposed project does not contain any trees or any forest land as defined in Public Resources Code (PRC) Section (§) 12220(g), timberland as defined in PRC § 4526, or timberland zones for timberland production defined by Government Code § 51104(g). The proposed project would result in improvements consistent with the underlying industrial designations and would not impact any forest or timberland. Impacts in this regard would not occur.

d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

The project site does not contain any trees or forest land. No conversion would occur. Refer to the discussion in c), above. No impacts would occur.

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?*

The proposed project is not located on or adjacent to any area used or designated as farmland, and is not located on or adjacent to any area used or designated as forest or timberland. The proposed project would not affect any area used for these purposes. Refer to a), b), c), and d), above. Impacts would not occur.

Cumulative Impacts

As discussed above, the proposed project is not located on any land used as farmland or an area zoned or designated for use as farmland. The proposed project also does not contain any trees or forest and is not located adjacent to any areas with such resources. There are no such lands in proximity to the proposed project. The proposed project would not result in a loss of any of these resources nor would it affect the operational value of any such lands. As such, the proposed project would not result in any cumulative loss of such resources and impacts would not occur.

4.3 Air Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) 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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			X	

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

The proposed project is located within the Sacramento Valley Air Basin (SVAB), which is under the jurisdiction of the Yolo-Solano County Air Quality Management District (YSAQMD). The SVAB is designated nonattainment for State and federal health-based air quality standards for ozone. The SVAB is designated nonattainment for State PM_{2.5}. To meet Federal Clean Air Act (CAA) requirements, the YSAQMD has prepared an Air Quality Attainment Plan (AQAP), which was adopted in 1992 and updated in 2003 and would be applicable to the proposed project.

YSAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project’s emissions. These are outlined in its CEQA Handbook (YSAQMD 2007). The Sacramento Federal Nonattainment Area (SFNA) is a subset of the SVAB and has adopted the Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 Ozone Plan).² The YSAQMD is one of the air districts in the SFNA. The 2017 Ozone Plan outlines how the region continues to meet federal progress requirements and demonstrates that the SFNA will meet the 75 parts per billion (ppb) 8-hour ozone NAAQS (Sacramento Metropolitan Air Quality Management District et al. 2017). YSAQMD also prepares a triennial report discussing the progress it has made towards improving the air

² Air districts in the SFNA consist of the SMAQMD and YSAQMD, as well as parts of Feather River Air Quality Management District, El Dorado County Air Quality Management District, and Placer County Air Pollution Control District.

quality and reducing ozone concentrations in its jurisdiction. The 2015 Triennial Assessment was adopted in July 2016; the draft 2018 Triennial Assessment was released in March 2019. YSAQMD's specific CEQA air quality thresholds are presented in *Table 2: Thresholds of Significance for Criteria Pollutants of Concern*.

Table 2: Thresholds of Significance for Criteria Pollutants of Concern

Pollutant	Threshold of Significance
ROG	10 tons/year
NO _x	10 tons/year
PM ₁₀	80 lbs/day
CO	Violation of the CAAQS

Source: Yolo Solano Air Quality Management District 2007.

CAAQS = California Ambient Air Quality Standards; CO = carbon monoxide; NO_x = nitrogen oxide; PM₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases.

Thresholds apply to construction and operational emissions generated within the YSAQMD.

^a Thresholds apply to construction and operational emissions generated within the YSAQMD.

A project is deemed inconsistent with air quality plans if it results in regional population, employment, or vehicle-miles-traveled (VMT) growth that exceeds estimates used to develop the applicable air quality plans. The air quality plans are based on growth projections from the Sacramento Area Council of Governments (SACOG) and local plans, including the general plans of city and county's. Projects that propose development that are consistent with the growth anticipated by SACOG's MTP/SCS and the Cities and Counties general plans would be consistent with YSAQMD's AQAP.

The proposed project involved cultivation of cannabis, with processing, and a shipping and receiving area needed to facilitate transportation of products. The project site would occur on approximately 1.48 acre includes an approximate 30,000 square foot facility. The proposed project would be constructed in two phases. The anticipated construction duration for the proposed project would be one to one and half years. Stationary sources, such as structures and businesses, that would comply with YSAQMD rules and regulations are generally not considered to have a significant air quality impact. The proposed project is considered a stationary source, and in addition, because it is not residential in nature would not directly induce growth in the county or result in long-term development that would conflict with the County's general plan growth forecast.

Regarding construction, the proposed project would be subject to Regulation II, Rule 2.8 (Particulate Matter Concentrations), of the YSAQMD. The purpose of Regulation II, Rule 2.8 is to limit the emissions of particulate matter (PM) from any source operation which emits, or may emit, dust fumes, or total suspended PM.

As shown in the discussion below, construction and operation of the proposed project would not exceed any established YSAQMD thresholds. Therefore, implementation of the proposed project would not obstruct implementation of an air quality plan and impacts would be less than significant.

- b) *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?*

Short-Term Construction Emissions

Construction-generated emissions are short-term and temporary, lasting only as long as construction activities occur, but have the potential to represent a significant air quality impact. A portion the project site was previously used as an airport runway or taxiway and includes existing pavement. The proposed project includes removal of the existing pavement which would be hauled off-site. The anticipated demolition is approximately 636 tons of pavement. Based on the soil materials and excavation depth (approximately 2-3 feet) the proposed project is anticipated to generate approximately 510 cubic yards (cy) of exported topsoil and 830 cy of imported soil materials. Temporary emissions from site preparation and excavation, as well as from motor vehicle exhaust associated with construction equipment and the movement of equipment across unpaved surfaces, worker trips, etc., would occur. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities.

Table 3: Construction Related Emissions presents construction emissions generated by the proposed project in the YSAQMD in tons per year and pounds per day.

Table 3: Construction Related Emissions

Construction Year	Pollutant				
	Reactive Organic Gases (ROG) tons/yr	Nitrogen Oxide (NO _x) tons/yr	Carbon Monoxide (CO) tons/yr	Coarse Particulate Matter (PM ₁₀) lbs/day	Particulate Matter (PM _{2.5}) tons/yr
2021	0.39	1.80	1.63	0.12	0.09
<i>YSAQMD Significance Threshold</i> ^{1, 2}	10	10	-	80	-
Exceed YSAQMD Threshold?	No	No	-	No	-
YSAQMD = Yolo Solano Air Quality Management District; CO = carbon monoxide; NO _x = nitrogen oxide; PM _{2.5} = particulate matter no more than 2.5 microns in diameter; PM ₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases; - = no threshold. 1. In developing these thresholds, YSAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable. 2. YSAQMD considers violations of the CO ambient air quality standard significant. Refer to Impact AQ-c. 3. Source: Refer to the CalEEMod outputs provided in Appendix A, <i>Air Quality Data</i> .					

As shown in *Table 3*, the proposed project would not exceed YSAQMD thresholds. However, to ensure that temporary construction effects and nuisance emissions are adequately addressed, the following mitigation is required:

MM AQ-1: Construction Dust Mitigation. The applicant shall implement the following best practices during construction:

- Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil, and wind exposure.
- Haul trucks shall maintain at least 2 feet of free board.
- Cover all trucks hauling dirt, sand or loose materials.
- Apply non-toxic binders (e.g. latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed area.

- Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days).
- Plant vegetative ground cover in disturbed areas soon as possible.
- Cover inactive storage piles.
- Sweep access road if visible soil material is carried out from the construction site.
- Treat accesses from the paved road with a 6 to 12-inch layer of wood chips or mulch.
- Treat accesses from the paved road with a 6-inch layer of gravel.

Implementation of MM AQ-1 would reduce construction impacts to a less than significant.

Long-Term Operational Emissions

Project-generated increases in emissions would be predominantly associated with motor vehicle use by employees and deliveries travelling to and from the site. To a lesser degree, secondary effects could occur from increases in emissions from increased power usage during the growing and processing phases, landscape maintenance equipment, and architectural coatings. All operations would occur indoors, and no on-site burning of cannabis material are proposed and no emissions in this regard would occur.

Table 4: Maximum Project Operational Emissions shows that the proposed project’s maximum emissions would not exceed YSAQMD operational thresholds.

Table 4: Maximum Project Operational Emissions

Emission Source	Pollutant				
	Reactive Organic Gases (ROG) tons/yr	Nitrogen Oxide (NO _x) tons/yr	Carbon Monoxide (CO) tons/yr	Coarse Particulate Matter (PM ₁₀) lbs/day	Particulate Matter (PM _{2.5}) tons/yr
Area	0.13	0.00	>0.01	>0.01	0.00
Energy	>0.01	>0.01	>0.01	>0.01	>0.01
Mobile	0.02	0.12	0.22	0.42	0.02
Total Project Emissions	0.15	0.12	0.22	0.42	0.02
<i>YSAQMD Significance Threshold^{1,2}</i>	<i>10</i>	<i>10</i>	<i>-</i>	<i>80</i>	<i>-</i>
Exceed YSAQMD Threshold?	No	No	-	No	-

YSAQMD = Yolo Solano Air Quality Management District; CO = carbon monoxide; NO_x = nitrogen oxide; PM_{2.5} = particulate matter no more than 2.5 microns in diameter; PM₁₀ = particulate matter no more than 10 microns in diameter; ROG = reactive organic gases; – = no threshold.

1. In developing these thresholds, YSAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

2. YSAQMD considers violations of the CO ambient air quality standard significant. Refer to Impact AQ-c.

3. Source: Refer to the CalEEMod outputs provided in Appendix A, *Air Quality Data*.

As shown in Table 4, operation of the proposed project would not exceed YSAQMD thresholds. Therefore, operations of the proposed project would have a less than significant impact. However, to limit PM_{2.5} emissions due to project operations, MM AQ-2 would prohibit open burning of cannabis material.

MM AQ-2: Prohibition of Open Burning of Cannabis Material. As part of the development agreement with the City, the applicant shall agree to a prohibitions from open burning of cannabis

materials as part of project operations and disposal. The City shall verify, prior to project approval, the applicant has a contract with a waste hauler able to dispose of cannabis material.

Implementation of MM AQ-2 would ensure than impacts remain less than significant.

c) *Expose sensitive receptors to substantial pollutant concentrations?*

Toxic Air Contaminants (TACs)

The proposed project would not create a significant hazard to surrounding residents and other sensitive receptors through exposure to substantial pollutant concentrations such as particulate matter during construction activities and/or other toxic air contaminants (TACs).

Sensitive land uses are generally defined as locations where people reside or where the presence of air emissions could adversely affect the use of the land. Typical sensitive receptors include residents, schoolchildren, hospital patients, and the elderly. The nearest sensitive receptors are residential uses located approximately 925 feet to the west of the project site. However, the proposed project would not produce concentrations of TACs; therefore, there impact regarding stationary or mobile TACs would be less than significant.

Carbon Monoxide Hotspots

Typically, substantial pollutant concentrations of carbon monoxide (CO) are associated with mobile sources (e.g., vehicle idling time). Localized concentrations of CO are associated with congested roadways or signalized intersections operating at poor levels of service (LOS E or lower). High concentrations of CO may negatively affect local sensitive receptors (e.g., residents, schoolchildren, or hospital patients). As identified above; however, the nearest sensitive receptors are located approximately 925 feet from the project site. Therefore, impacts on sensitive receptors would be less than significant.

d) *Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?*

The occurrence and severity of odor impacts depends on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they can be unpleasant, leading to distress among members of the public and can generate citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose people to objectionable odors would have a significant impact.

Project construction would use a variety of gasoline- or diesel-powered equipment that would emit exhaust fumes. While exhaust fumes, particularly diesel exhaust, may be considered objectionable by some people, construction-generated emissions would occur intermittently throughout the workday and would dissipate rapidly within increasing distance from the source.

Construction-related odors would be less than significant, as there are no sensitive receptors closer than approximately 925 feet. In addition, Mitigation Measure MM AQ-1 would reduce these emissions to the extent feasible based on the type and availability of equipment for a specific task.

Odors directly related to marijuana cultivation and processing are more likely to be noticed in the general area of a project. Cannabis gives off distinctive, sometimes pungent, and sometimes “skunky” odor that can be either pleasant or disagreeable, depending on the receptor.

As part of the proposed Project, all cultivation and processing of cannabis plants and products would occur indoors. Per the City’s ordinance, the proposed project must have a ventilation and filtration system installed that shall prevent cannabis plant odors from exiting the interior of the structure. The ventilation and filtration system must be approved by the building official and installed prior to commencing cultivation within the detached, fully enclosed and secure structure. An Air District Authority to Construct and Permit to Operate is required for odor control devices, fume hoods and engineer generator sets and may require specific permitting depending upon the operation associated with each license³. With implementation of standard conditions, and considering that there is not a concentration of sensitive receptors nearby, this impact would be less than significant.

Cumulative Impacts

A project that has a significant impact on air quality with regard to emissions of PM₁₀, PM_{2.5}, NO_x and/or ROG_s as determined above would have a significant cumulative effect. In the event direct impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the proposed project, in combination with the emissions from other past, present, or reasonably foreseeable future projects are in excess of screening levels identified above, and the project’s contribution accounts for more than an insignificant proportion of the cumulative total emissions. With regard to past and present projects, the background ambient air quality, as measured at the monitoring stations maintained and operated by the YSAQMD, measures the concentrations of pollutants from existing sources. Past and present project impacts are therefore included in the background ambient air quality data.

The proposed project would contribute to cumulative impacts from construction and operational emissions. However, as discussed above, the proposed project would not result in a new air quality impact. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed. Cumulative impacts would be less than significant.

³ City of Rio Vista Municipal Code, Chapter 17.70. Section 17.70.030 Commercial cultivation of cannabis regulated.

4.4 Biological Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or 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 state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological				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

A biological analysis was completed to review the potential for impacts to biological resources and is provided in Appendix B. This section summarizes the results of that analysis.

- 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?*

Candidate, sensitive, or special status species are commonly characterized as species that are at potential risk or actual risk to their persistence in a given area or across their range. These species have been identified and assigned a status ranking by governmental agencies such as the CDFW, the USFWS, and nongovernmental organizations such as the CNPS. The degree to which a species is at risk of extinction is the determining factor in the assignment of a status ranking. Some common threats to a species or population's persistence include habitat loss, degradation, and fragmentation, as well as human conflict and intrusion. For the purposes of this biological review, special status species are defined as the following:

- listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA);
 - listed or candidates for listing as threatened or endangered under the California Endangered Species Act (CESA);
 - identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
 - listed as Fully Protected under the California Fish and Game Code;
 - listed as rare under the California Native Plant Protection Act;
 - considered jointly by CDFW and CNPS to be "rare, threatened, or endangered in California" and assigned one of the following California Rare Plant Ranks (CRPR):
 - CRPR 1A - presumed extinct in California;
 - CRPR 1B - rare, threatened, or endangered in California and elsewhere;
 - CRPR 2A - presumed extirpated in California, but more common elsewhere;
 - CRPR 2B - rare threatened, or endangered in California, more common elsewhere;
 - CRPR 3 - Plants About Which More Information is Needed (review list)
 - considered a locally significant species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G);
- otherwise meet the definition of rare or endangered under CEQA §15380 (b) and (d).

Based on known regional occurrence data, Swainson's hawk (*Buteo swainsoni*) is the only special status species with the potential to occur on the project site. Small mammal burrows present on site may provide marginal foraging habitat for Swainson's hawk. No suitable nesting habitat is present on site and no trees would be removed. However, there is potential nesting habitat within 0.25 miles of the project site east of Airport Road. Within urban areas, construction activities (e.g., heavy equipment operation) within 0.25 miles could have potential to disturb nesting species. Implementation of MM BIO-1 would reduce construction impacts to a less than significant.

Once constructed, the project would be adjacent to existing and similar industrial uses. Following construction, suitable foraging areas would remain in the vicinity. Thus, operation related impacts are anticipated for Swainson's hawk.

There were 23 additional special status species that were reviewed and found unlikely to occur on site. The lack of potential for these species to occur is mainly attributed to the highly disturbed nature of the site, the site is surrounded by roads and existing disturbed or developed areas, and the lack of aquatic and riparian habitats in the project area and vicinity.

Implementation of MM BIO-1 would reduce construction impacts to a less than significant.

MM BIO- 1: If construction activities are planned to begin after March 1, a preconstruction breeding survey for Swainson's hawks will be conducted throughout areas of suitable nesting habitat within 0.25 miles of the project site. If a Swainson's hawk nest is observed within 0.25 mile of planned construction activities, CDFW will be contacted to determine whether project-related activities are likely to impact the nesting pair and whether any avoidance and minimization measures must be established to avoid impacts.

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?*

Sensitive habitats include (a) areas of special concern to resource agencies; (b) areas protected under CEQA; (c) areas designated as sensitive natural communities by the CDFW; (d) areas outlined in Section 1600 of the California Fish and Game Code; (e) areas regulated under Section 404 of the CWA; and (f) areas protected under local regulations and policies. No riparian habitat or other sensitive natural communities occur within the project boundaries; therefore, no impact would occur as a result of the project.

c) *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological?*

No wetlands or other jurisdictional waters were observed on site during the July 2020 site visit. A review of U.S. Geological Survey National Hydrography Data shows that no drainage features exist in the project site. Natural Resource Conservation Service (NRCS) web soil survey reports the site is comprised entirely of Tujunga fine sand. Site observations were consistent with the NRCS data and little variability in soil type was observed where soil was present and visible. This soil type has a high permeability, is excessively drained and depth to a restrictive layer, which would hold water, is more than 80 inches deep. Thus, the soil on site is not conducive to holding water, creating a flooded or ponding condition. Thus, the site is unlikely to have seasonal wetlands, marshes, or vernal pools to emerge during wetter months. No state or federally protected wetlands, marshes, or vernal pools exist on site; therefore, no impact would occur as a result of the project.

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?*

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Movement corridors may provide favorable locations for wildlife to travel between different habitat areas, such as foraging sites, breeding sites, cover

areas, and preferred summer and winter range locations. They may also function as dispersal corridors allowing animals to move between various locations within their range. The project site was previously disturbed and is currently a ruderal habitat that is isolated by roads and development and previously disturbed sites. The conversion of approximately 1.48 acres of previously disturbed areas comprised of ruderal habitat would not significantly impact wildlife. Several special status species with potential to occur in the broader region, require aquatic, marshy, estuarine, or riparian habitats and/or suitable upland adjacent habitat. There is a lack of aquatic habitat on the project site and in the vicinity to facilitate migration and dispersal of special status species which can occur in the region. Therefore, impacts on wildlife habitat and movement would be less than significant.

e) *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

The proposed project would not conflict with the Rio Vista Municipal Code or Ordinances, nor would it conflict with any of the policies described in the Rio Vista General Plan that protect biological resources. The project is not located within Sensitive Local Resource Areas as identified in Figure 10-2 of the City of Rio Vista General Plan. The project is proposed within and is consistent with an industrial land use designation.

The project would not conflict with any local policies or ordinances protecting biological resources; therefore, no impact would occur.

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?*

The City of Rio Vista is a plan participant in the Draft Solano County Multispecies Habitat Conservation Plan (HCP) and the project site is within the plan area covered by the HCP. The HCP allows agencies to issue Incidental Take Permits to project applicants for impacts to federal and state listed endangered species within the plan area. The project would not impact federal or state listed species and would not conflict with provisions of the HCP. Thus, no impact would occur.

Cumulative Impacts

The City of Rio Vista plans to develop surrounding areas within the industrial land use designations as envisioned in the General Plan. This would include other cannabis cultivation facilities in the immediate area. There is a lack of habitats for special status species and impacts to biological resources due to this project will be less than significant. Future developments would be subject to CEQA review and entitlements and would be required to implement mitigation measures to reduce impacts to biological resources. Also, the surrounding areas designated for industrial land use appear to also be previously disturbed and/or have limited habitats suitable for special status species and few impacts to special status species would be anticipated. Thus, cumulative impacts would be less than significant.

4.5 Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

a) *Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?*

Historic resources are standing structures of historic or aesthetic significance. Architectural sites dating from the Spanish Period (1529–1822) through the post-World War II period (1945–1955) are generally considered for protection if they are determined to be historically or architecturally significant. Sites dating after the post-World War II period may also be considered for protection if they could gain significance in the future. Historic resources are often associated with archaeological deposits of the same age.

City of Rio Vista

Colonel N. H. Davis established the town site of Rio Vista as Brazos del Rio in 1855, which was initially built near the Sacramento River. As the only steamboat landing between Sacramento and Benicia, the town prospered and in 1858, the Rio Vista post office was established. The town also gained fame for its salmon fishing due to its presence on the river. In January 1862 the town was largely destroyed, and its wharves were reconstructed while the central town itself was rebuilt further away from the river. The town also continued to be an important port for agricultural products (Keegan 1989) and today, a portion of the City economy relies on agricultural as well as thriving commercial businesses adjacent to the Sacramento River, in the downtown area, and along SR 12 (Solano County, 2008).

Former Rio Vista Airport

The project site is located on the former Rio Vista Airport, which is depicted to have been built post World War II on the 1952 USGS topo map. The airport closed in 1995 when the City built a new airport to take

its place that year. The new airport (current Rio Vista Airport) is located approximately 2 miles from the former Rio Vista Airport to the northeast. The former Rio Vista Airport still contains portions of several runways, taxiways, ramps, and hangars.

According to the Office of Historic Preservation (OHP), there is only one resource (e.g. Delta King) listed in the National Register of Historic Places (NRHP) in the City of Rio Vista. It is important to note that while the Delta King is listed in the City of Rio Vista, it is currently located in the City of Sacramento. The Delta King is a 285-foot-long steamboat built in 1924 and has been used for naval service, passenger service, and as a bunkhouse. The boat has changed hands several times throughout the years. In 1974, the boat was brought to Rio Vista to be prepared for use by the Quimby Island Reclamation District, but the company went bankrupt. In 1978, the boat was listed on the NRHP database. While the Delta King is listed in the City of Rio Vista, it has been permanently moored along the Old Sacramento waterfront in the City of Sacramento since 1985. The project site is located approximately 30 miles from this structure. Therefore, the proposed project would have a less than significant impact in this regard.

b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

Archaeological resources are places where human activities have measurably altered the earth or left deposits of physical remains. Archaeological resources may be either prehistoric (the period before written record) or historic (after the introduction of written record). The majority of such places in this region are associated with either Native American or Euroamerican occupation of the area.

The archeological record for Solano County, which includes the area of Rio Vista, begins in the prehistoric period which is generally considered the time before 10,000 years ago. From this point begins the Lower Archaic Period that generally dates from 10,000–6,000 Years Before Present (BP). The oldest known archaeological component in this region of central California is from the Los Vaqueros Reservoir area outside of Solano County, in eastern Contra Costa County. Following the Lower Archaic Period, the Initial Middle Archaic Period generally dates from 6,000 to 4,500 BP. With the exception of isolated human burials, extensive early Middle Archaic deposits were not known in the San Francisco Bay/Sacramento–San Joaquin Delta (Bay-Delta) region until the Los Vaqueros Reservoir project in 1996 (Solano County, 2008).

Following the Initial Middle Archaic Period, the Terminal Middle Archaic Period generally dates from 4,500 to 2,500 BP. Several buried sites in Solano County date to this period, including CA-CCO-637 and CA-CCO-696 at Los Vaqueros Reservoir; CA-CCO-308 in the San Ramon Valley (Fredrickson 1966); and CA-SOL-315 and CA-SOL-391 in Green Valley; and a surface site dated to this period sits on a hillside overlooking the southern side of San Pablo Bay (Solano County, 2008). All of the Terminal Middle Archaic sites in Solano County have produced human remains, and most contain intact burials. A variety of artifacts are associated with the Terminal Middle Archaic Period, including side-notched and stemmed projectile points, rectangular abalone ornaments, shaped and unshaped mortars and pestles, and rectangular Olivella shell beads (Solano County, 2008).

The Upper Archaic Period dates after the Initial Middle Archaic Period from 2,500 to 1,300 BP. Upper Archaic deposits have been identified throughout the lowland valleys of the Coast Ranges and along the shores of San Francisco and Suisun Bays (Solano County, 2008). Following the Upper Archaic Period dates the Emergent Period from 1,200 to 200 BP. The distinctive cultural pattern of the Emergent Period, the

Augustine Pattern, is marked by the appearance, for the first time, of small arrow-sized projectile points, beautifully trimmed show mortars, flanged pestles, flanged steatite pipes, and chevron-designed bird-bone tubes. Large villages of hundreds of people are thought to have been located in the Delta region, while small hamlets composed of one or two extended families were located in many of the smaller valleys (Solano County, 2008). Several ethnohistorical and ethnographic accounts describe the Patwin and the Miwok who were the native inhabitants of what is now Solano County.

Former airport activities and on-going redevelopment have disturbed the immediate ground surface in the project area; however, intact historical/archeological resources may be discovered below the existing surface layer in land subject to ground-disturbing activities. According to the records search conducted by the NWIC, no archaeological site have been recorded in the planning area.

Although the potential for discovery of unknown cultural or archaeological resources is considered low, the potential for the inadvertent discovery of resources remains. Therefore, pursuant to Public Resource Code (PRC) Section 21083.2, should any cultural resources be encountered during construction, all work would cease until the find has been evaluated and mitigation measures (MM CUL-1 and MM CUL-2) are implemented to protect any cultural find. Compliance with PRC Section 21083.2 and corresponding mitigation measures below would ensure the project would not cause a substantial adverse change in the significance of an archaeological resource. Implementation of the listed mitigation would reduce impacts to less than significant in this regard.

MM CUL- 1: During ground disturbing activities, if any archeological or tribal resources (e.g., evidence of past human habitation or fossils) are found, the project applicant and/or its contractor shall cease all work within 50 feet of the discovery and notify the City of Rio Vista Community Development Department, Planning Division immediately. The project applicant and/or its contractor shall retain a qualified archaeologist and Native American representative to evaluate the finds and recommend appropriate resource protection plan for the inadvertently discovered resource(s). The City and the applicant shall consider the recommendations and agree on implementation of the measure(s) that are feasible and appropriate. Such measures may include avoidance, preservation in place, excavation, documentation, curation, or other appropriate measures. (Health and Safety Code Section 7050.5).

c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

Based on nearby studies and the past uses of the project site and general project area, there is a very low likelihood for prehistoric and/or historic era resources to exist on the project site. This would include the potential for the project area to have been used as a burial site. Nonetheless, there may be a possibility, of unanticipated and accidental discoveries of human remains during ground-disturbing project-related activities. If such remains are located, this could lead to their damage, destruction, or loss and would be considered a significant impact. While the potential is considered very low, mitigation to reduce the potential effects of inadvertent discovery are required and MM CUL-2 would be implemented. Implementation of this measure would reduce impacts to less than significant.

MM CUL- 2: If human remains either informally interred or associated with a burial (i.e. grave goods) are discovered during construction, the project applicant and/or its contractor shall cease all work within 50 feet of the find and notify the City of Rio Vista Community Development

Department, Planning Division and the County Coroner. Notifications shall occur immediately and in accordance with California Health and Safety Code Section 7050.5. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission and shall follow the procedures outlined in CEQA Guidelines Section 15064.5(d) and (e) regarding treatment and disposition of recovered cultural items. The Commission will designate a Most Likely Descendant (MLD) who will be authorized to provide recommendations for management of the Native American human remains and any associated materials or objects (Public Resources Code Section 5097.98 and Health and Safety Code Section 7050.5).

Cumulative Impacts

Cumulative impacts to cultural resources are typically considered to be site specific and mitigated on a project by project basis. The proposed project would occur within the former Rio Vista Airport site which is not a designated historic resource and because of past disturbances and operations as an airport, is thought to have a very low potential of containing historic, cultural, or archaeologically significant resources. Taken in sum with other past, present, and reasonably foreseeable projects, some of which would occur within the same general vicinity and also would undergo separate CEQA review and have mitigation applied, cumulative impacts would be less than significant.

4.6 Energy

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

The Energy section is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD). In addition, the section utilizes information obtained from the County of Solano Climate Action Plan⁴, and the California Emissions Estimator Model (CalEEMod) version 2016.3.2.

Energy use related to the proposed project would include energy directly consumed for special lighting, ventilation and air conditioning systems. Indirect energy consumption would be associated with the generation of electricity at power plants. Transportation-related energy consumption includes the use of fuels and electricity to power cars, trucks, and distribution facilities. Energy would also be consumed by equipment and vehicles used during project construction and routine maintenance activities.

In order to ensure energy implications are considered in project decisions, Appendix F of CEQA Guidelines requires a discussion of the potential energy impacts of projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. The main forms of available energy supply are electricity, natural gas, and oil.

Regulatory

Renewable Energy Standards

In 2002, California established its Renewable Portfolio Standard program with the goal of increasing the annual percentage of renewable energy in the state’s electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the

⁴ County of Solano. *Solano County Climate Action Plan*. February 2010.

target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the State's load-serving entities to meet this target. In October 2015, then-Governor Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

California 2007 Energy Action Plan Update

The 2007 Energy Action Plan II is the State's principal energy planning and policy document. The plan describes a coordinated implementation strategy to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the state and its electricity providers would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply to meet its energy needs.

Building Codes

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977 and are updated every three years (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 9, 2018, the CEC adopted the 2019 Building Energy Efficiency Standards, which took effect on January 1, 2020.

The 2019 Standards will improve upon the 2016 Standards. Under the 2019 Title 24 standards, residential buildings are expected to be about 7 percent more energy efficient, and when the required rooftop solar is factored in for low-rise residential construction, residential buildings that meet 2019 Title 24 standards use about 53 percent less energy and non-residential buildings use 30 percent less energy than those built to meet the 2016 standards.

California Green Building Standards Code

The California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality.

CALGreen also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may adopt which encourage or require additional measures in the five green building topics. The most recent update to the CALGreen Code was adopted in 2019 and went into effect January 1, 2020.

2006 Appliance Efficiency Regulations

The California Energy Commission adopted Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) on October 11, 2006. The regulations were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both Federally regulated appliances and non-Federally regulated appliances. While these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

California Utility Efficiency Programs (Senate Bill 1037 and Assembly Bill 2021)

SB 1037 and AB 2021 require electric utilities to meet their resource needs first with energy efficiency. California Utility Efficiency Programs have also set new targets for statewide annual energy demand reductions.

Renewable Portfolio Standard

In 2002, California established its Renewable Portfolio Standard program⁵ with the goal of increasing the annual percentage of renewable energy in the state’s electricity mix by the equivalent of at least 1 percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission subsequently accelerated that goal to 2010 for retail sellers of electricity (*Public Utilities Code* Section 399.15(b)(1)). Then-Governor Schwarzenegger signed Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, then-Governor Schwarzenegger continued California’s commitment to the Renewable Portfolio Standard by signing Executive Order S-21-09, which directs the California Air Resources Board under its AB 32 authority to enact regulations to help the State meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, the California Air Resources Board adopted its Renewable Electricity Standard regulations, which require all of the state’s load-serving entities to meet this target. In October 2015, then-Governor Jerry Brown signed into legislation Senate Bill 350, which requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

Existing Energy Settings

Electricity and Natural Gas

Currently PG&E provides energy (electricity and gas) to the City of Rio Vista. PG&E generates or buys electricity from hydroelectric, nuclear, renewable, natural gas, and coal facilities. In 2018, natural gas facilities provided 15 percent of PG&E’s electricity delivered to retail customers; nuclear plants provided

⁵ The Renewable Portfolio Standard is a flexible, market-driven policy to ensure that the public benefits of wind, solar, biomass, and geothermal energy continue to be realized as electricity markets become more competitive. The policy ensures that a minimum amount of renewable energy is included in the portfolio of electricity resources serving a state or country.

34 percent; hydroelectric operations provided 13 percent; renewable energy facilities including solar, geothermal, and biomass provided 39 percent.⁶

The proposed project site is located within 1,000 feet of other existing developments, that are currently supplied electricity and gas services via PG&E. Additionally, the project site is located in an area that was previously used as an airport and would connect to existing PG&E utility lines in the project vicinity.

In 2018, PG&E reported total electricity consumption within its planning area of 44,932.58 million kilowatt-hours (kWh), or gigawatt-hours (GWh), with the majority of usage associated with commercial and industrial land uses.⁷

Between 2012 and 2018, total electricity use in Solano County was 25,634 gigawatt hours (GWh), with annual ranges of 3,193 GWh to 3,243 GWh⁸. Non-residential uses (industrial and commercial) make up approximately 60 percent of total usage each year and residential uses the remaining 40 percent.⁹ In this same timeframe, total natural gas consumption in Solano County was 1,607 million therms, with annual ranges between approximately 217 to 253 million therms per year. Non-residential uses were in the range of approximately 76 percent of the total annual consumption, while residential use were approximately 24 percent of total annual consumption.

- a) *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Construction

The energy consumption associated with construction of the proposed project includes primarily diesel fuel consumption from on-road hauling trips and off-road construction diesel equipment, and gasoline consumption from on-road worker commute and vendor trips. Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers, and heating, ventilation, and air conditioning) would be powered by a generator. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. This analysis relies on the construction equipment list and operational characteristics, as stated in Section 4.3 (Air Quality) and Section 4.8 (Greenhouse Gas Emissions). *Table 5: Project Energy Consumption During Construction* quantifies the construction energy consumption are provided for the Project, followed by an analysis of impacts based on those quantifications.

⁶ Pacific Gas and Electric, Exploring Clean Energy Solutions, https://www.pge.com/en_US/about-pge/environment/what-we-are-doing/clean-energy-solutions/clean-energy-solutions.page?WT.mc_id=Vanity_cleanenergy, accessed July 27, 2020.

⁷ California Energy Commission, Energy Consumption Data Management System. California Energy Consumption Database. Available at: <http://ecdms.energy.ca.gov/>. Accessed July 28, 2020.

⁸ California Energy Commission, Energy Consumption Data Management System. California Energy Consumption Database. Available at: <http://ecdms.energy.ca.gov/>. Accessed July 28, 2020.

⁹ California Energy Commission, Energy Consumption Data Management System. California Energy Consumption Database. Available at: <http://ecdms.energy.ca.gov/>. Accessed July 23, 2020.

Table 5: Project Energy Consumption During Construction

Source	Project Construction Usage	Solano County Annual Energy Consumption	Percentage Increase Countywide
Diesel Use	Gallons		
On-Road Construction Trips ¹	21,872	53,290,000	0.041%
Off-Road Construction Equipment ²	2,759		0.005%
Construction Diesel Total	24,631		0.046%
Gasoline	Gallons		
On-Road Construction Trips ¹	1,703	184,197,250	0.001%
1. On-road mobile source fuel use based on vehicle miles traveled (VMT) from CalEEMod and fleet-average fuel consumption in gallons per mile from EMFAC2017 in Solano County. 2. Off-road mobile source fuel usage based on a fuel usage rate of 0.05 gallons of diesel per horsepower (hp)-hour from USEPA. Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC: Emission Factor Model 2017; kWh: kilowatt-hour; Sources: AWMA, 1992; DOE 2016; USEPA 1996.			

In total, construction of the proposed project is anticipated to consume approximately 24,631 gallons of diesel and 1,703 gallons of gasoline. The project’s fuel from the entire construction period would increase fuel use in the County by approximately 0.05 percent for diesel and 0.001 percent for gasoline.

There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. In addition, some incidental energy conservation would occur during construction through compliance with State requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest EPA and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption.

The CEQA Guideline Appendix G and Appendix F criteria requires the project’s effects on local and regional energy supplies and on the requirements for additional capacity to be addressed. A 0.05 percent increase in construction fuel demand is not anticipated to trigger the need for additional capacity. Fuel consumption is based on a conservative construction phasing and conservative estimates for annual construction fuel consumption. Longer phases would result in lower construction intensity and a lower annual fuel consumption, resulting in lower annual demand on energy supplies. Additionally, use of construction fuel would cease once the project is fully developed. As such, project construction would have a nominal effect on the local and regional energy supplies. Therefore, it is expected that construction fuel consumption associated with the project would not be inefficient, wasteful, or unnecessary. The project would not substantially affect existing energy or fuel supplies, or resources and new capacity would not be required. Impacts would be less than significant in this regard.

Operational

Energy use related to the proposed project would include energy directly consumed for special lighting, ventilation and air conditioning systems, as well as fuel usage from on-road vehicles. Quantifications of operational energy consumption are provided for the proposed project are provided in *Table 6: Annual Energy Consumption During Operations* below.

Table 6: Annual Energy Consumption During Operations

Source	Project Operational Usage	Solano County Annual Energy Consumption	Percentage Increase Countywide
Electricity Use	Megawatt Hour/Year (MWh/year)		
Area ¹	4,101	3,243,250	0.1265%
Natural Gas Use	Therms/year		
Area ¹	1,041	242,528,476	0.0004%
Diesel Use	Gallons/Year		
Mobile ²	14,571	53,290,000	0.027%
Gasoline Use	Gallons/Year		
Mobile ²	8,240	184,197,250	0.004%
Notes:			
1. The electricity and natural gas usage are based on project-specific estimates and CalEEMod defaults.			
2. Calculated based on the mobile source fuel use based on vehicle miles traveled (VMT) and fleet-average fuel consumption (in gallons per mile) from EMFAC2017.			
Abbreviations: CalEEMod: California Emission Estimation Model; EMFAC2017: California Air Resources Board Emission Factor Model; kBtu: thousand British Thermal Units; kWh: kilowatt-hour			

Operation of uses implemented pursuant to the proposed project would annually consume approximately 4,101 MWh of electricity, 1,041 therms of natural gas, 14,571 gallons of diesel, and 8,240 gallons of gasoline.

Pacific Gas and Electric (PG&E) provides electricity to the project area. The project site is expected to continue to be served by the existing PG&E electrical facilities. Total electricity demand in PG&E's service area is forecast to increase by approximately 12,000 GWh—or 12 billion kWh—between 2016 and 2028.¹⁰ The proposed projects anticipated electricity demand (approximately 4,101 MWh) would be nominal compared to overall demand in PG&E's service area. Therefore, the projected electrical demand would not significantly impact PG&E's level of service.

Regarding natural gas, Solano County consumed 242,528,476 therms of natural gas in 2018¹¹. Therefore, the project's operational energy consumption for space and water heating would represent 0.0004 percent of the natural gas consumption in the County.

In 2018, Californians consumed approximately 15,589,042,965 gallons of gasoline and approximately 3,107,823,655 gallons of diesel fuel. Solano County annual gasoline fuel use in 2019 was 184,197,250 gallons and diesel fuel use was 53,290,000 gallons. Expected project operational use of gasoline and diesel would represent 0.004 percent of current gasoline use and 0.027 percent of current diesel use in the County.

¹⁰ California Energy Commission, *California Energy Demand 2018-2030 Revised Forecast, Figure 49 Historical and Projected Baseline Consumption PG&E Planning Area*, April 2018.

¹¹ California Energy Commission, Energy Consumption Data Management System. California Energy Consumption Database. Available at: <http://ecdms.energy.ca.gov/>. Accessed July 28, 2020.

It should also be noted that the proposed project design and materials would comply with the 2019 Building Energy Efficiency Standards, which take effect on January 1, 2020, and/or future 2019 Building Energy Efficiency Standards depending on when construction permits are issued.

None of the project energy uses exceed one percent of Solano County use and project operations would not substantially affect existing energy or fuel supplies or resources. The proposed project would comply with applicable energy standards and new capacity would not be required. Impacts would be less than significant in this regard.

b) *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. As discussed above, project development would not cause inefficient, wasteful and unnecessary energy consumption, and impacts would be less than significant. The County of Solano adopted a Climate Action Plan (CAP) in 2011 in order to help reduce energy consumption and GHG emissions to become a more sustainable community and to meet the goals of AB 32. The CAP outlines various measures and strategizes numerous methods on how the County's long-term vision can be achieved. The proposed project would be required to comply with existing regulations, including applicable measures from the CAP, or would be directly affected by the outcomes (vehicle trips and energy consumption would be less carbon intensive due to statewide compliance with future low carbon fuel standard amendments and increasingly stringent Renewable Portfolio Standards). Therefore, the proposed project would comply with existing State energy standards and would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant in this regard.

Cumulative Impacts

As discussed above, the proposed project would not cause a new energy impact to occur. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed.

4.7 Geology and Soils

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			X	
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 direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems				X

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
where sewers are not available for the disposal of waste water?				
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

This section addresses the project sites suitability for use for indoor cannabis cultivation based on information related to geotechnical and soils conditions from information contained in the RVGP and state of California resources such as those provided by the California Department of Conservation (CDOC), California Geological Survey (CGS), United States Geological Survey (USGS), and the Geotechnical Engineering Report prepared by Terracon dated July 10, 2020 see Appendix C.

- a) *Directly or indirectly cause 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.*

According to publicly available information, no faults are known to lie within the project site (City of Rio Vista, 2002 and CDOC, 2010). The RVGP notes that the Alquist Priolo Special Studies Zone Act focuses on surface fault rupture and not the potential of a particular location to experience seismically induced ground shaking. The RVGP notes that the City is not included within any special study area. The CDOC also provides mapping of Alquist Priolo zones and neither the City nor project site are shown in such an area (CDOC, 2020). Therefore, the likelihood of a surface fault rupture occurring on this site is considered low. Nonetheless, there are faults located in the general area including the Midland Fault Zone, located approximately two miles east of the project site and the Rio Vista Fault adjacent to the Sacramento River approximately 1.5 miles to the southwest. Project construction would be required to meet the current California Building Code (CBC), Chapter 16, Section 1613, Earthquake Loads. As such, project implementation would have a less than significant impact in this regard.

- ii. *Strong seismic ground shaking?*

The northern California region is characterized by numerous earthquake faults and is recognized to experience seismic ground shaking. The majority of faults are located west of the project site in and around the San Francisco Bay area. The projects site’s most significant seismic hazard is seismic shaking from the Midland Fault Zone or Rio Vista Fault discussed in i), above, that due to their proximity could result in substantial shaking, should movement occur. Seismic ground shaking also may occur from activity

on other regional faults, notably, the Hayward Fault and San Andreas Fault located approximately 38 miles and 55 miles to the west, respectively.

Potential impacts from seismic ground shaking would be reduced through compliance with Section 15.04.030 California Codes Adopted to the City's Municipal Code. This section of code states that primary and secondary codes of the CBC) are adopted and incorporated into the codes of the City by reference, and have the same legal effect as if they were written as part of the City code. This includes both Volume 1 and 2 of the 2016 CBC which discussion requirements related to structural design including loads from earthquakes, soils and structural designs, and other measures and prescriptions to reduce effects of strong seismic ground shaking (CBC, 2016).

Section 13.24.060 in Chapter 13.24 related to grading approval requires permit be issued after approval from the director. Section 13.24.090 Conditions of grading approval, among other requirements would not provide for grading approval unless the project conforms with the city's general plan, any adopted specific or community plans, and applicable city ordinances, including the zoning ordinance and the subdivision ordinance.

The RVGP also notes that safety related to seismicity, flooding, grading, and drainage are of concern and that all development proposal would be referred to the Building Department, Public Works Department, and City Engineer to address potential geologic impacts. The RVGP goes on to state that the applicant to provide specific data requirements pertaining to potential hazards, including slope instability and seismicity and will be used by the City to determine the permitted level of development of a given site.

Therefore, compliance with these standard building and plan check criteria, and other sections of the CBC listed above, would ensure all needed structural designs and other measures would be in place prior to the issuance a building permit and would reduce impacts associated with ground shaking to less than significant.

iii. Seismic-related ground failure, including liquefaction?

Liquefaction describes the phenomenon where soil loses its supportive strength and becomes incapable of bearing the load or overlaying soils or structures. Liquefaction occurs during earthquake conditions in saturated, relatively loose, sandy soils located near the ground surface. The RVGP notes that the potential for liquefaction is not high, but depending on subsurface conditions, liquefaction is possible at the project site during a strong earthquake or other seismic ground that coincide with unconsolidated sediments and a high-water table. According to the CDOC Earthquake zones of required investigation maps, the project site and City have not been evaluated for liquefaction potential.

As discussed in ii) above, the proposed project would be referred to the Building Department, Public Works Department, and City Engineer to address potential geologic impacts, which would include liquefaction. During this process, including plan review, the proposed project would be reviewed to ensure compliance with the CBC in conformance with Section 15.04.030 California Codes Adopted to the City's Municipal Code. This would ensure that all proposed structures would be built to conform to all applicable building standards. Adherence to these and any other City required regulations as well as implementation of MM-GEO-1 would reduce impacts associated with liquefaction to less than significant.

iv. Landslides?

The project site is flat and slopes slightly to the east falling approximately three feet over a distance of approximately 400 feet. The project site is not located adjacent to any area with steep terrain, any hillsides, or other sloped areas that would be subject to landslides. No impact would result in this regard. In addition, the project site does not contain any rock outcroppings and there is no potential for the project site to be affected by rockfall from off-site areas. As such, the project site would not expose people or structures to the effects of landslides from either on-site or from off-site locations and impacts would not occur.

v. Result in substantial soil erosion or the loss of topsoil?

The project site is generally flat, and as discussed in iv), above, the project site elevation changes a total of approximately three feet over a distance of approximately 400 feet. According to the United States Department of Agriculture (USDA) websoil survey, the proposed project is located on tujunga fine sand. This soils is typically found at elevations from 0-40 feet, can be located in floodplains, and is formed from mixed dredged alluvium. The soil consists of fine sand and sand is classified as excessively drained, the runoff class is negligible, and water storage in the profile is very low (USDA, 2020).

Grading of the project site would not require the creation of sloped areas that would be potentially subject to erosion. However, minor grading over the approximate 1.48-acre site would result in temporary barring of the soil when the upper layer of vegetation is removed and for the removal and replacement/recompaction of soils and fill materials to create the building pad(s) and achieve appropriate site elevations. In addition, at times, soil may be stockpiled on-site to enable proper mixing of soil and these piles would be subject to potential erosion as a result of wind and rain.

The proposed project would be required to comply with Section 13.20.100 Reduction of pollutants in stormwater of the City's zoning code. This section requires that any person engaged in activities which may result in pollutants entering the storm water conveyance system shall, to the maximum extent practicable, undertake the measures in the code to reduce the risk of non-storm water discharge and/or pollutant discharge. In addition, the code specifically states that any person or business holding an NPDES general or individual storm water permit is not exempt from compliance to the local storm water regulations. This code section further defines requirements related to implementation of a Stormwater Pollution Prevention Plan (SWPPP).

In accordance with the listed requirements and to reduce the potential for soil erosion and loss of topsoil, the proposed project would comply with the State Water Resources Control Board's (SWRCB) National Pollutant Discharge Elimination System (NPDES) General Permit (No. 2012-0006-DWQ) during construction. Under the NPDES, the SWPPP are required for construction activities that would disturb an area of one acre or more. The SWPPP would identify potential sources of erosion or sedimentation as well as identify and implement Best Management Practices (BMPs) that reduce erosion. Typical BMPs intended to control erosion include sandbags, retention basins, silt fencing, street sweeping, etc. These measures would reduce the potential for eroded materials to affect downstream receiving waters.

Once constructed, the proposed project would include both impermeable surfaces including concrete and other hardscape such as parking lots and driveways, and permeable surfaces such as landscaped areas. The City Municipal Code also includes requirements for long-term post construction discharges to prevent

pollutants from entering the stormwater conveyance system and comply with all applicable, federal, state, and local laws, ordinances, and regulations. Long term controls specifically include source control measures including low impact design (LID) and hydromodification management to prevent pollution of stormwater and provide for pre-treatment to remove pollutants from stormwater.

Overall, development of the proposed project would not result in conditions where substantial surface soils would be exposed to wind and water erosion. Therefore, conformance to all listed requirements would ensure impacts are less than significant.

b) 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?

As discussed above, the project site is flat with very little topographic relief, is not located adjacent to any hillsides or other sloped areas and is not subject to landslides. Lateral spreading typically results when ground shaking moves soil toward an area where soil integrity is weak or unsupported. Lateral spreading typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils or non-plastic fine-grained soils exist below groundwater. The CGS has designated certain areas within California as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table. This RVGP notes that liquefaction potential in the City is not high and the Geotechnical Engineering Report found the project site is not located within a liquefaction hazard zone mapped by the CGS (Terracon, 2020).

Nonetheless, the Geotechnical Engineering Report noted that the depth to groundwater was approximately 24 feet below the project site and based on the exploratory borings, a detailed liquefaction analysis was conducted. Based on the analysis, the liquefaction potential for the project site is considered to be moderate due to the presence of a layer of medium stiff to stiff sandy silt between 25-33 feet below ground surface (bgs). Total settlement due to liquefaction is expected to be approximately 1.5-2 inches across the site. Given the thickness of the non-liquefiable overburden of about 25 feet, the differential settlement across the building pad is anticipated to be less than approximately one half of the total settlement. Because of this, the potential effects of liquefaction and lateral spreading are considered potentially significant and mitigation is proposed to reduce the impacts.

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. The proposed project does not propose pumping of any water, oil, and/or gas from underground reservoirs. In addition, the site was not used for mining and there are no mines near the project site. These features minimize the likelihood of land subsidence.

Collapse can occur if near-surface soils vary in composition both vertically and laterally. Strong ground shaking from earthquakes can cause non-uniform compaction of the soil strata, resulting in movement of the near-surface soils and collapse.

The proposed project would be required to conform with the requirements set forth in the City of Rio Vista Municipal Code as detailed in the above sections. This would include approval of grading plans, which would consider existing soils, existing grades, depth to groundwater, and the potential for the site to experience instability. In addition, adherence to all applicable regulations and incorporation of MM-GEO-1 would reduce impacts from liquefaction and lateral spreading to less than significant.

MM-GEO-1: Prior to issuance of a grading permit, the applicant shall show to the satisfaction of the City that a geotechnical engineer has been retained to observe and test soils during grading operations. Observance and testing shall be done to ensure soils are properly mixed. If fill materials are imported, the materials shall be free of vegetation, free of debris, and free of fragments large than three inches. Other materials shall not be used without approval of the geotechnical engineer. The City shall ensure that all other recommendation contained in the Geotechnical Engineering Report related to Site Preparation, Fill Material, and Site Compaction, are included to grading plans and included to the notes.

Level of Significant After Mitigation: Impacts would be less than significant.

c) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Expansive soils generally are associated with silt and clay soils that are subject to shrinking and swelling due to the large pour volume and the fact they are subject to large changes in moisture content during dry and wet periods. The shrinking and swelling of soils can cause damage or failure of foundations, utilities, and pavements. During periods of high moisture content, expansive soils under foundations can heave and result in structures lifting. In dry periods, the same soils can lose strength, collapse, and result in settlement of structures.

As discussed above, according to the USDA websoil survey, the proposed project is located on tujunga fine sand, is classified as excessively drained, and water storage in the profile is very low. These characteristics do not lend themselves to being considered expansive soils and the project site is anticipated to be conducive to the development of the proposed project. In addition, as discussed in the Geotechnical Engineering Report, the near surface soils consist of loose to medium dense sand with various amounts of silt. The near surface soil layers are underlain by varying interbedded layers of silt with varying levels of sand and sand with various amounts of silt. These soil conditions do not lend themselves to expansion.

To further ensure expansive soils are not present, the project sites grading plan would be evaluated by the City Engineer prior to project approval. This would ensure expansive soils are not present, or if they are, proper soil mixing and compaction is undertaken to reduce potential effects. In addition, as part of MM-GEO-1, the geotechnical engineer would verify that all soils are appropriately mixed and compacted. Therefore, impacts in this regard would be less than significant.

- d) *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?*

The proposed project would tie into the existing wastewater treatment system and wastewater from non-cannabis related cultivation activities would be treated at the Beach WWTP. If any wastewater from watering of the cannabis is not able to be recycled, the wastewater would be securely stored on-site until it is transported and disposed at a licensed treatment facility. The proposed project does not require, nor does it propose use of a septic system or alternative wastewater disposal system. Therefore, no impacts would occur.

- e) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Paleontological resources are typically found in geological strata that was deposited during the Pleistocene Epoch which includes the time between 2.6 million years ago until approximately 11,700 years ago. The Holocene Epoch began about 11,700 years ago and consists of younger sedimentary deposits. Due to the younger age of these materials fossils are considered less likely to be found. Accordingly, because the project site is within the Sacramento River basin and is overlain by generally young sediment, it is unlikely that any grading and excavation would inadvertently unearth unknown paleontological resources.

Nonetheless, there is a possibility that future ground-disturbing activities could uncover and cause damage to, or the destruction of, previously undiscovered paleontological resources or unique geologic features. Implementation of MM GEO-2 would reduce potential impacts to a less-than significant level. MM-GEO-2 would require notification of a qualified paleontologist if during initial site disturbance and excavation activities paleontological resources are uncovered. As part of the mitigation, a resource recovery plan would be implemented, and this would reduce impacts to less than significant.

MM GEO-2: If any paleontological resources are encountered during ground-disturbance activities, all work within 25 feet of the find shall halt until a qualified paleontologist is able to evaluate the find and make recommendations regarding treatment. Paleontological resource materials may include resources such as fossils, plant impressions, or animal tracks preserved in rock. The qualified paleontologist shall contact the local or regional Natural History Museum or other appropriate facility regarding any discoveries of paleontological resources.

If the qualified paleontologist determines that the discovery represents a potentially significant paleontological resource, additional investigations and fossil recovery may be required to mitigate adverse impacts from project implementation. If avoidance is not feasible, the paleontological resources shall be evaluated for their significance. If the resources are not significant, avoidance will not be required. If the resources are significant, they shall be avoided or recovered such that potential damaging effects are mitigated. Construction in that area shall not resume until approval of the qualified paleontologist and City are given. If the fossil is recovered the fossil shall be deposited in an accredited and permanent scientific institution. Copies of all correspondence and reports shall be submitted to the Lead Agency.

Cumulative Impacts

Geology and soil-related impacts are generally site-specific and are determined by a particular site's soil characteristics, topography, and proposed land uses. Development projects are analyzed on an individual basis and must comply with established requirements of the applicable jurisdiction's development requirements and the California Building Standards Code as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Cumulative effects related to geology resulting from the implementation of future development of the proposed project as well as surrounding areas could expose more persons and property to potential impacts due to seismic activity. Long-term impacts related to geology include the exposure of people to the potential for seismically induced ground shaking. Implementation of other cumulative projects would incrementally increase the number of people and structures subject to a seismic event. Seismic and geologic significance is considered on a project-by-project basis through the preparation of design-level geotechnical studies. The potential for any project to be affected by or any project to exacerbate an existing geotechnical hazard would be minimized or would not occur through strict engineering guidelines as they pertain to protection against known geologic hazards and potential geologic and soil-related impacts.

Development of the proposed project as well as all past, present, and future projects would be required to be constructed in accordance with the latest edition of the CBC and to adhere to all current earthquake construction standards, including those relating to soil characteristics set forth by the City. Therefore, no elements of the proposed would contribute to any cumulatively considerable geologic and/or soils impacts. Therefore, cumulative effects of increased seismic risk would be less than significant.

4.8 Greenhouse Gas Emissions

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 gases?			X	

The Greenhouse Gas (GHG) Emissions section is primarily based on information, guidance, and analysis protocol provided by the Yolo-Solano Air Quality Management District (YSAQMD). In addition, the section utilizes information obtained from the County of Solano Climate Action Plan¹², and the California Emissions Estimator Model (CalEEMod) version 2016.3.2.

The proposed project’s GHG emissions would occur over the short term from construction activities, consisting primarily of emissions from equipment exhaust. There would also be long-term regional emissions associated with new vehicular trips and indirect source emissions, such as electricity usage for greenhouse lighting.

Addressing GHG generation impacts requires an agency to make a determination as to what constitutes a significant impact. The CEQA Guidelines specifically allow lead agencies to determine thresholds of significance that illustrate the extent of an impact and are a basis from which to apply mitigation measures. This means that each agency is left to determine if a project’s GHG emissions would have a significant impact on the environment. The guidelines direct that agencies are to use “careful judgment” and “make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” the development’s GHG emissions (14 CCR Section 15064.4[a]). Determining a threshold of significance for climate change impacts poses a special difficulty for lead agencies. Much of the science in this area is new and is evolving constantly. At the same time, neither the State nor local agencies are specialized in this area, and there are currently no local, regional, or state thresholds for determining whether a residential development has a significant impact on climate change. The CEQA Amendments do not prescribe specific significance thresholds but instead leave considerable discretion to lead agencies to develop appropriate thresholds to apply to projects within their jurisdiction.

¹² County of Solano. *Solano County Climate Action Plan*. February 2010.

Assembly Bill (AB) 32 is a legal mandate requiring that statewide GHG emissions be reduced to 1990 levels by 2020. In adopting AB 32, the legislature determined the necessary GHG reductions for the State to sufficiently offset its contribution to cumulative climate change to reach 1990 levels. AB 32 is the only legally mandated requirement for the reduction of GHGs. As such, compliance with AB 32 is the adopted basis on which the agency can base its significance threshold for evaluating GHG impacts.

Senate Bill 32 (SB 32), signed into law in September 2016, codifies a GHG reduction target of 40 percent below 1990 levels by 2030 and authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030 and to adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions. With SB 32, the California Legislature passed companion legislation AB 197, which provided additional direction for developing an updated Scoping Plan. CARB released the second update to the Scoping Plan to reflect the 2030 target set by SB 32 in November 2017.

Additionally, signed into Law in September 2018, SB 100 increased California's renewable electricity portfolio from 50 to 60 percent by 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045.

Various local, regional, State and federal agencies share the responsibility for air quality management in Solano County. The YSAQMD operates at the local level and is tasked with enforcing the implementation of federal and State programs and regulations. The YSAQMD works jointly with the USEPA, CARB, SACOG, other air districts in the region, county and city transportation and planning departments, and various non-governmental organizations to work towards improving global climate change through a variety of programs. Programs include the adoption of regulations, policies and guidance, extensive education and public outreach programs, as well as emission reducing incentive programs.

Nearly all development projects in the region have the potential to generate air pollutants that may increase global climate change. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. The YSAQMD has not adopted thresholds of significance for GHG emissions therefore; in accordance with best practices this evaluation uses neighboring air districts (SMAQMD and BAAQMD) thresholds.

On April 28, 2017 the California Department of Food and Agriculture (CDFA) released a set of proposed regulations to establish cannabis cultivation licensing and a track and-trace system, collectively referred to as CalCannabis Cultivation Licensing. Section 8315 (Additional Environmental Protection Measure for Indoor Licenses) of the regulations included several environmental protection measures intended to reduce energy use including:

Indoor license types of all sizes shall ensure that electrical power used for commercial cannabis activity shall be provided by any combination of the following:

- a. On-grid power with 42 percent renewable source.
- b. Onsite zero net energy renewable source providing 42 percent of power.
- c. Purchase of carbon offsets for any portion of power above 58 percent not from renewable sources.

- d. Demonstration that the equipment to be used would be 42 percent more energy efficient than standard equipment, using 2014 as the baseline year for such standard equipment.

a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Short-Term Construction Greenhouse Gas Emissions

Construction of the proposed project would result in direct emissions of CO₂, N₂O, and CH₄ from the operation of construction equipment and the transport of materials and construction workers to and from the project site.

Several State-led GHG emissions-reducing regulations have recently taken effect, and changes to regulations will continue to take effect in the near future that will substantially reduce GHG emissions. For instance, implementation of Assembly Bill 1493 (the Pavley Standard) (Health and Safety Code Sections 42823 and 43018.5) will significantly reduce the amount of GHGs emitted from passenger vehicles. The Pavley Standard is aimed at reducing GHG emissions from noncommercial passenger vehicles and light-duty trucks of model years 2009–2016 by requiring increased fuel efficiency standards of automobile manufacturers. The program combines the control of smog, soot, and GHG emissions with requirements for greater numbers of zero-emission vehicles. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

The electricity provider for the City of Rio Vista, Pacific Gas and Electric Company (PG&E), is subject to California’s Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020, which will have the effect of reducing GHG emissions generated during energy production. As of 2017, Pacific Gas and Electric’s (PG&E) power mix was at 33 percent renewable energy¹³ and will be required to achieve the 60 percent renewable energy goal by 2030 established by SB 100.

The proposed project would result in direct GHG emissions from construction and operation related activities. Total GHG emissions generated during construction are presented in *Table 7: Construction Greenhouse Gas Emissions*. The CalEEMod outputs are contained within the Appendix A, Air Quality and GHG Data.

Table 7: Construction Greenhouse Gas Emissions

Construction Year and Season	CO ₂ e Emissions, metric tons/year
Total (2021)	264
Emissions amortized over 30 years	8
Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.	

¹³ California Energy Commission, *2017 Power Content Label*, July 2018.

As shown in *Table 7*, project construction-related activities would generate approximately 264 MTCO₂e of GHG emissions over the course of construction. One-time, short-term construction GHG emissions are typically summed and amortized over the project's lifetime (assumed to be 30 years). It is reasonable to look at a 30-year time frame for buildings since this is a typical interval before a new building requires the first major renovation. The amortized project emissions would be approximately 9 MTCO₂e per year. Once construction is complete, the generation of construction related GHG emissions would cease.

YSAQMD does not have a threshold for construction GHG emissions, which are one-time, short-term emissions and therefore would not significantly contribute to long-term cumulative GHG emissions impacts of the proposed project. In absence of thresholds of significance, the YSAQMD is currently recommending GHG analysis consistent with SMAQMD approach. Emissions from construction are below the SMAQMD construction phase threshold of 1,100 MTCO₂e/year. Therefore, project construction GHG impacts are less than significant.

Long-Term Operational Greenhouse Gas Emissions

Operational or long-term emissions occur over the life of a project. The project proposes buildings that would house businesses that produce goods for consumers and distributors, characteristic of an industrial operation. Operational GHG emissions would also result from indirect sources, such as off-site generation of electrical power, the energy required to convey water to, and wastewater from the project, the emissions associated with solid waste generated from the project, and any fugitive refrigerants from air conditioning or refrigerators.

Total GHG emissions associated with the proposed project are summarized in *Table 8: Project Greenhouse Gas Emissions*. As shown in *Table 8*, the Project would generate approximately 444 MTCO₂e annually from both construction and operations.

Table 8: Project Greenhouse Gas Emissions

Emissions Source	MTCO ₂ e ¹ per Year
Construction (amortized over 30 years)	8
Area	0.001
Energy	328
Mobile	84
Waste	23
Water	0.65
Total Annual Project GHG Emissions²	444
<i>Threshold³</i>	1,100
<i>Exceed Threshold?</i>	No

Note:

¹ Emissions were calculated using CalEEMod version 2016.3.2.

²Total values are from CalEEMod and may not add up due to rounding.

³YSAQMD does not have a GHG operational threshold, therefore SMAQMD and BAAQMD threshold of 1,100 MTCO₂e was utilized.

Source: CalEEMod version 2016.3.2. Refer to Appendix A for model outputs.

Table 8 shows that the proposed project would result in approximately 444 MTCO₂e per year from area, energy, mobile, waste, and water usage. YSAQMD does not have a GHG threshold, therefore the neighboring SMAQMD threshold of 1,100 MTCO₂e was utilized. The proposed project would not exceed the numeric threshold of 1,100 MTCO₂e. Thus, the proposed project would have a less than significant impact with respect to GHG emissions. In addition, with continued implementation of various statewide measures, the proposed project's operational energy and mobile source emissions (approximately 94 percent of total project emissions) would continue to decline in the future. GHG operational emissions would be less than significant.

b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Solano County Climate Action Plan

In 2011, the County of Solano adopted its Climate Action Plan (CAP). The CAP provides additional guidance for the County's ongoing efforts to reduce GHG emissions. The CAP contains policies/goals related to agriculture, energy, transportation/land use, waste, and water.

Goals in the section on energy focus on increasing energy efficiency and increasing the usage of renewable sources. Actions include implementing green building ordinances and programs, community outreach, renewable energy policies, and partnerships with local energy producers.

The CAP identifies the County's emissions at 960,000 MTCO₂e per year. The CAP establishes a communitywide emissions reduction goal of 20 percent below 2005 levels by 2020. This goal is more aggressive than the State's reduction goal. The CAP identifies numerous GHG reduction measures in the agriculture, transportation and land use, energy use, water use, and solid waste sectors.

The proposed project would help implement the goals set forth in the CAP improving energy efficiency of existing and new buildings within the County as well as improving energy efficiency of the County's infrastructure operations.

California Air Resource Board Scoping Plan Consistency

The California State Legislature adopted AB 32 in 2006. AB 32 focuses on reducing GHGs (CO₂, CH₄, NO_x, HFCs, PFCs, and SF₆) to 1990 levels by the year 2020. Pursuant to the requirements in AB 32, CARB adopted the *Climate Change Scoping Plan* (Scoping Plan) in 2008, which outlines actions recommended to obtain that goal. The Scoping Plan provides a range of GHG reduction actions that include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as the cap-and-trade program, and an AB 32 implementation fee to fund the program. As shown in *Table 9: Project Consistency with Applicable CARB Scoping Plan Measures*, the proposed project is consistent with most of the strategies, while others are not applicable to the proposed project.

The 2017 Scoping Plan Update identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan in 2013. Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. As such, impacts related to consistency with the Scoping Plan would be less than significant.

Table 9: Project Consistency with Applicable CARB Scoping Plan Measures

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Transportation	California Cap-and-Trade Program Linked to Western Climate Initiative	Regulation for the California Cap on GHG Emissions and Market-Based Compliance Mechanism October 20, 2015 (CCR 95800)	Consistent. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers. However, the regulation indirectly affects people who use the products and services produced by these industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period.
	California Light-Duty Vehicle GHG Standards	Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles Pavley I 2005 Regulations to Control GHG Emissions from Motor Vehicles	Consistent. This measure applies to all new vehicles starting with model year 2012. The proposed project would not conflict with its implementation as it would apply to all new passenger vehicles purchased in California. Passenger vehicles, model year 2012 and later, associated with construction and operation of the proposed project would be required to comply with the Pavley emissions standards.
		2012 LEV III California GHG and Criteria Pollutant Exhaust and Evaporative Emission Standards	Consistent. The LEV III amendments provide reductions from new vehicles sold in California between 2017 and 2025. Passenger vehicles associated with the site would comply with LEV III standards.
	Low Carbon Fuel Standard	2009 readopted in 2015. Regulations to Achieve GHG Emission Reductions Subarticle 7. Low Carbon Fuel Standard CCR 95480	Consistent. This measure applies to transportation fuels utilized by vehicles in California. The proposed project would not conflict with implementation of this measure. Motor vehicles associated with construction and operation of the proposed project would utilize low carbon transportation fuels as required under this measure.
	Regional Transportation-Related GHG Targets.	SB 375. Cal. Public Resources Code §§ 21155, 21155.1, 21155.2, 21159.28	Consistent. The proposed project would provide development in the region that is consistent with the growth projections in the RTP/SCS.
	Goods Movement	Goods Movement Action Plan January 2007	Not applicable. The proposed project does not propose any changes to maritime, rail, or intermodal facilities or forms of transportation.
	Medium/Heavy-Duty Vehicle	2010 Amendments to the Truck and Bus Regulation, the Drayage Truck Regulation and the Tractor-Trailer GHG Regulation	Consistent. This measure applies to medium and heavy-duty vehicles that operate in the state. The proposed project would not conflict with implementation of this measure. Medium and heavy-duty vehicles associated with construction and operation of the proposed project would be required to comply with the requirements of this regulation.
	High Speed Rail	Funded under SB 862	Not applicable. This is a statewide measure that cannot be implemented by a project applicant or Lead Agency.

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Electricity and Natural Gas	Energy Efficiency	Title 20 Appliance Efficiency Regulation	Consistent. The proposed project would not conflict with implementation of this measure. The proposed project would comply with the latest energy efficiency standards.
		Title 24 Part 6 Energy Efficiency Standards for Residential and Non-Residential Building	
		Title 24 Part 11 California Green Building Code Standards	
	Renewable Portfolio Standard/Renewable Electricity Standard.	2010 Regulation to Implement the Renewable Electricity Standard (33% 2020)	Consistent: The proposed project would obtain electricity from the electric utility, PG&E. PG&E obtained 33 percent of its power supply from renewable sources in 2018. Therefore, the utility would provide power when needed on site that is composed of a greater percentage of renewable sources.
Million Solar Roofs Program	SB 350 Clean Energy and Pollution Reduction Act of 2015 (50% 2030)	Consistent. This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The program provides incentives that are in place at the time of construction.	
Million Solar Roofs Program	Tax Incentive Program		
Water	Water	Title 24 Part 11 California Green Building Code Standards	Consistent. The proposed project would comply with the CalGreen standards, which requires a 20 percent reduction in indoor water use.
		SBX 7-7—The Water Conservation Act of 2009	
		Model Water Efficient Landscape Ordinance	
Green Buildings	Green Building Strategy	Title 24 Part 11 California Green Building Code Standards	Consistent. The State is to increase the use of green building practices. The proposed project would implement required green building strategies through existing regulation that requires the proposed project to comply with various CalGreen requirements. The proposed project includes sustainability design features that support the Green Building Strategy.
Industry	Industrial Emissions	2010 CARB Mandatory Reporting Regulation	Not applicable. The Mandatory Reporting Regulation requires facilities and entities with more than 10,000 MTCO _{2e} of combustion and process emissions, all facilities belonging to certain industries, and all electric power entities to submit an annual GHG emissions data report directly to CARB. As shown above, mobile source emissions make up the majority of emissions and project stationary source GHG emissions would not exceed 10,000 MTCO _{2e} . Therefore, this regulation would not apply.
Recycling and Waste Management	Recycling and Waste	Title 24 Part 11 California Green Building Code Standards	Consistent. The proposed project would not conflict with implementation of these measures. The proposed project is required to achieve the recycling mandates via compliance with the CALGreen code. The City has consistently achieved its state recycling mandates.
		AB 341 Statewide 75 Percent Diversion Goal	

Scoping Plan Sector	Scoping Plan Measure	Implementing Regulations	Project Consistency
Forests	Sustainable Forests	Cap and Trade Offset Projects	Not applicable. The proposed project is in an area designated for urban uses. No forested lands exist on-site.
High Global Warming Potential	High Global Warming Potential Gases	CARB Refrigerant Management Program CCR 95380	Not applicable. The regulations are applicable to refrigerants used by large air conditioning systems and large commercial and industrial refrigerators and cold storage system. The proposed project would not conflict with the refrigerant management regulations adopted by CARB.
Agriculture	Agriculture	Cap and Trade Offset Projects for Livestock and Rice Cultivation	Not applicable. The proposed project site is designated for urban development. No grazing, feedlot, or other agricultural activities that generate manure occur currently exist on-site or are proposed to be implemented by the proposed project.
Source: California Air Resources Board, <i>California's 2017 Climate Change Scoping Plan</i> , November 2017 and CARB, <i>Climate Change Scoping Plan</i> , December 2008.			

The proposed project is estimated to result in approximately 444 MTCO₂e per year, therefore the GHG emissions caused by long-term operation of the proposed project would be less than significant.

Regarding goals for 2050 under Executive Order S-3-05, at this time it is not possible to quantify the emissions savings from future regulatory measures, as they have not yet been developed; nevertheless, it can be anticipated that operation of the proposed project would benefit from the implementation of current and potential future regulations (e.g., improvements in vehicle emissions, SB 100/renewable electricity portfolio improvements, etc.) enacted to meet an 80 percent reduction below 1990 levels by 2050.

The proposed project demonstrates consistency with the Solano County CAP and Scoping Plan goals, and would not conflict with any applicable plan, policy, or regulation of an agency adopted to reduce GHG emissions, including Title 24, AB 32, and SB 32. Therefore, project impacts would be less than significant.

Cumulative Impacts

As discussed above, the proposed project would not cause a new greenhouse gas impact to occur. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed.

4.9 Hazards and Hazardous Materials

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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 or excessive noise for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

The information in this analysis is primarily based on a Phase I Environmental Site Assessment (ESA) that was written for the proposed project. The ESA was prepared by Terracon and was conducted consistent with the procedures included in ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The ESA is based on a search of the environmental record database and a site reconnaissance conducted February 12, 2020. Please see Appendix D.

a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Hazardous materials are listed by federal, State, or local agencies, based on the materials characteristics and its potential to cause harm or damage. A hazardous material is defined by the California Code of Regulation (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10). Hazardous materials are commonly used in commercial and industrial applications and, to a limited extent, in residential areas.

Both the US Environmental Protection Agency (EPA) and the US Department of Transportation (DOT) regulate the transport of hazardous waste and material, including transport via roadways and highways. The EPA administers permitting, tracking, reporting, and operational requirements established by the Resource Conservation and Recovery Act (RCRA). The DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act (HMTA). The HMTA administers container design and labeling, and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste. Additionally, state and local agencies, enforce the application of these acts and provide coordination of safety and mitigation responses in the case that accidents involving hazardous materials occur.

Construction Impacts

Construction for the proposed project would include removal of upper layers of soil and vegetation, excavation, grading, pouring of concrete and laying of asphalt, followed by construction of the proposed structures and installation of interior elements. Heavy equipment would be used and would entail refueling and potential maintenance and repairs. These activities could lead to minor spills of fuels, oils, and lubricants. The use and handling of hazardous materials during construction would occur in accordance with applicable federal, state, and local laws, including California Occupational Health and

Safety Administration (Cal/OSHA) requirements. All construction activities would be subject to the National Pollutant Discharge Elimination System (NPDES) permit process that requires the preparation of a stormwater pollution prevention plan (SWPPP). The SWPPP would be reviewed and approved by the CVRWQCB and the City prior to issuance of any grading or building permits.

Construction also could require the transport and use of small amounts of liquid waste, including cleaning fluids, dust palliative, herbicides, and solvents. Some solid hazardous waste, such as welding materials and dried paint, may also be generated during construction. These materials would be transported to the project site during construction, and any hazardous materials that are produced as a result of the construction of the project would be required to be collected and transported away from the site for safe disposal. During construction of the project, material safety data sheets for all applicable materials present at the site would be made readily available to onsite personnel. During construction activities, nonhazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets located at a reasonably accessible onsite location. Conformance to all applicable regulations and laws related to hazardous materials during construction would reduce impacts in this regard to less than significant.

Operational Impacts

Typical cannabis cultivation can be similar to other agricultural crops, particularly outdoor cultivation and can require the use of pesticides and fertilizers. Soil and fertilizers contain nutrients, particularly nitrogen and phosphorous, which when excess water is applied can result in untreated runoff. If this runoff reaches downstream waters the addition of these nutrients can contribute to toxic algae blooms, and deplete the dissolved oxygen harming fish and other aquatic species. In addition, pesticides can lead to many unintended effects such as harm to persons, wildlife, and vegetation, and can be easily mobilized by stormwater runoff.

New development associated with the proposed project would occur in two phases and result in a total two approximate 15,000 sf structures. Each structure would have a portion committed to cultivation. *Table 1: Phase I and II Interior Space*, shows the area associated with each proposed on-site use. Unlike other common cultivation techniques, Snowtill utilizes an all natural cultivation method that does not use any form of chemicals or fertilizers. The cultivation process uses living soil to produce a superior product at a lower production cost. This process results in no water runoff and there is close to zero waste, both organic and inorganic, during the entire production cycle.

Based on the proposed cultivation methodology, the potentially exposure of business employees to hazardous materials releases would be almost completely eliminated. The proposed project does not include other process such as extraction so the use of on-site hazardous materials and pressurized gas in the processing and manufacturing of cannabis-based products, would not occur.

Although the proposed project does not anticipate the need for any pesticides, if such materials are used, the would be required to comply with all California Department of Pesticide Regulation (CDPR) laws and regulations related to cannabis cultivation (Cal. Code of Regulations, Title 3, Section 8307). The California Department of Food and Agriculture (CDFA) regulations contain protocols to reduce potential effects from pesticide use, including compliance with all label requirements, storage of chemicals in a secure building, containment of leaks and spills, application of the minimum amount necessary to control the target pest, and prevention of offsite drift.

Enforcement of hazardous material regulations, pesticide regulations, building codes and rapid response by local agencies would reduce the project's hazardous materials transportation, use, and disposal health hazards to a less than significant impact.

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?*

Both the US Environmental Protection Agency (EPA) and the US Department of Transportation (DOT) regulate the transport of hazardous waste and material, including transport via highway. The EPA administers permitting, tracking, reporting, and operations requirements established by the Resource Conservation and Recovery Act (RCRA). As discussed above, the DOT regulates the transportation of hazardous materials through implementation of the HMTA. This act dictates container design and labeling, and driver training requirements. These established regulations are intended to track and manage the safe interstate transportation of hazardous materials and waste. Additionally, state and local agencies enforce the application of these acts and provide coordination of safety and mitigation responses in the case that accidents involving hazardous materials occur.

Operational Impacts

As discussed in a) above, construction of the proposed project would include refueling and could require minor maintenance of construction equipment on-site. This could lead to minor fuel, oil, and lubricant spills. The use and handling of hazardous materials during construction would occur in accordance with applicable federal, state, and local laws, including Cal/OSHA requirements. All construction activities would be subject to the NPDES permit process that requires the preparation of a SWPPP, which would be reviewed and approved by the Regional Water Quality Control Board. Conformance to applicable requirements would reduce impacts to less than significant in this regard.

Operational Impacts

The cannabis cultivation and processing operations could involve the transport, use, or disposal of hazardous materials in small quantities. This would include fuels needed for power equipment and backup generators, or pesticides. Although the proposed project does not propose it, if Cannabidiol (CBD) is manufactured, the oils extracted from the plant using a distilling process. This process commonly uses CO₂ as the solvent, but other solvents may be used. If these process do occur, all appropriate permits from CDFA or BCC would be obtained and permitting conditions requiring the safe handling and use of the chemicals would be followed as verified by the agencies or City.

Additionally, indoor and mixed light cultivation operations may use high-powered lighting, which could contain hazardous components that could enter the environment during disposal. However, these and others such as cleaning needed for routine building upkeep do not present a reasonably foreseeable release of hazardous materials or pose an inherent or unusual risk to people or the environment and are not acutely volatile or hazardous when used and stored in accordance with federal, state and local regulations. The proposed project would be required to conform to local, state, and federal laws with regard to hazardous material and waste.

As discussed, although the applicant does not intend to use pesticides or fertilizers, if such materials are used, the cultivator would be required to comply with all CDPR laws and regulations related to cannabis

cultivation (Cal. Code of Regulations, Title 3, Section 8307). The CDFA regulations contain protocols to reduce potential effects from pesticide use, including compliance with all label requirements, storage of chemicals in a secure building, containment of leaks and spills, application of the minimum amount necessary to control the target pest, and prevention of offsite drift.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no schools within 0.25 miles of the proposed project. The nearest school is DH White Elementary School which is operated by the River Delta Unified School District (RDUSD) located greater than one mile to the west (RDUSD, 2020). No impacts would occur.

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?

Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. Hazardous materials and hazardous wastes are classified according to four properties: toxic (causes human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), and reactive (causes explosions or generates toxic gases) (CCR, Title 22, Chapter 11, Article 3).

As part of the Phase I ESA selected federal and state environmental regulatory databases as well as responses from state and local regulatory agencies were reviewed. The project site was not identified on the regulatory database within the appropriate ASTM search distances that would reasonably be expected to impact the site. Therefore, the site and nearby facilities listed in the database report do not appear to represent recognized environmental conditions (REC's), nor would the site be affected from any known off-site REC's due to topography, and/or distance from the site.

In addition, a reconnaissance was performed and remnants of an asphalt runway, a minor amount of wood and metal fence posts, two abandoned recreational vehicles (RVs), PVC pipe, and sheet metal were observed. None of these materials are considered REC's. Therefore, the proposed project is not listed as a hazardous materials sites compiled pursuant to Government Code Section 65962, and there are no known conditions on the project site that warrant such a listing (Terracon, 2020). Impacts would be less than significant.

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 or excessive noise for people residing or working in the project area?

The proposed project is on the site of the former Rio Vista Municipal Airport. The airport is no longer functional and is the subject of reuse and redevelopment efforts. The proposed project is located approximately 1.5 miles south of the current Rio Vista Municipal airport located adjacent to the eastern right-of-way of Airport Road. The main runway of the new airport is oriented east to west for approaches and takeoff. The secondary runway trends generally north to south.

The proposed project is not located within any of the Safety Zones prescribed in the City of Rio Vista Municipal Airport Land Use Compatibility Plan (RVALUCP). The RVALUCP discusses the runway protection

zones (RPZs) surrounding the runways. The dimensions of the RPZs are set in accordance with FAA criteria. The airport is divided into seven zones including the Primary Surface Zone; Zone 1 – Runway Protection Zone; Zone 2- Inner Approach/Departure Zone; Zone 3- Inner Turning Zone; Zone 4 – Outer Approach/Departure Surface; Zone 5 – Sideline Zone; and Zone 6 – Traffic Pattern Zone. The Traffic Pattern Zone is the outermost zone and encircles the entire airport and all the other zones(Solano County, 2018).

The FAA also criteria sets forth requirements related to General Standards in terms of land use; Noise Criteria that sets noise contours; Safety Criteria that defines allowable structures and storage of hazardous materials; Airspace Protection Criteria the defines allowable structure heights and visual obstructions; and Avigation Easements for flight path right-of-way.

The proposed project consists of a single-story structure and would not impede or interfere with any airport operations. The proposed project is located approximately 0.5 miles south of Zone 6 (the outmost zone) and none of the airport protection zones or listed criteria would be applicable. Therefore, impacts would not occur, and mitigation is not required.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The City maintains a comprehensive Emergency Management Plan, which addresses interagency coordination, emergency functions, continuity of government responsibility, and public awareness. In addition, the plan provides for the operation of emergency services, defines transportation alternatives and City evacuation procedures approved by the State Office of Emergency Services (OES).

The proposed project provides emergency ingress and egress from the interior within the former airport reuse and redevelopment areas. Access driveways to the project site and the interior circulation for emergency access have been designed in accordance with City standards and would not encroach on or obstruct any existing evacuation route. The project site is not located on or adjacent to any major roadways used for emergency evacuation. The proposed project would be compliant with existing fire codes and ordinances regarding emergency access, this would be verified during the planning review process.

The proposed project would not interfere with the operation of any roads, nor result in road closures during project construction. The proposed project would not require any detours or conflict with emergency access. Therefore, the proposed project would not impede or conflict with any adopted emergency response or evacuation plans and no impact would occur.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The site is not located in an area identified as having a high potential for wildland fire. The project site consists of bare ground and upland and ruderal vegetation. The project site is surrounded by similarly vegetated undeveloped areas and industrial structures. The California Department of Forestry and Fire Protection (CALfire) Draft Fire Hazard Severity Zones in Local Responsibility Areas shows the project within an unzoned LRA area. Due to the existing site conditions and relative urbanized nature of the former airport site and surrounding areas, the proposed project would not expose people or structures to a substantial risk from wildland fires. Impacts would be less than significant, and mitigation is note required.

Cumulative Impacts

The proposed project would store and use all potentially hazardous materials in accordance with all applicable safe handling requirements. As discussed above, the proposed project would use a natural fertilization and pest control methodology and would not use pesticides or fertilizers. This would substantially reduce potential for the proposed project to result in an unauthorized release during project operations. All other potentially hazardous materials such as fuels, lubricants, and cleaning agents are common use items and do not represent a substantial hazardous materials risk. All project related construction would be conducted in accordance with applicable standards and safe handling procedures. Other projects that would occur within the vicinity and as part of the reuse and redevelopment efforts airport also would have to conform to these same requirements. These projects would be the same general distance from the new airport, would occur interior to the redevelopment area, would conform to applicable standards, and also would undergo the planning and review process prior to any approval by the City. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project would not make a cumulatively considerable contribution to hazards and hazardous material impacts. Impacts would be less than significant.

4.10 Hydrology and Water Quality

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			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 or through the addition of impervious surfaces, in a manner which would:		X		
i. Result in substantial erosion or siltation on- or off-site?		X		
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?			X	
iii. 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		
iv. Impede or redirect flood flows?			X	

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

The Sacramento River Basin lies between the Sierra Nevada and Cascade Range to the east and the Coast Range and Klamath Mountains to the west. Source waters start in northern California from the Upper Sacramento, McCloud, and Pit rivers, which join at Lake Shasta. From Lake Shasta the Sacramento River flows south and west where it receives additional flows from numerous small and moderate-sized tributaries including the American River which flows through Sacramento and past Rio Vista. The mouth of the Sacramento River is at Suisun Bay near Antioch, where it combines with the San Joaquin River and ultimately flows to the San Francisco Bay and into the Pacific Ocean.

Waterflows from Rio Vista to the Sacramento River are via interior drainages and surface flows to stormwater drainage facilities. There are two main drainages within the City. Both have been modified from their original form due to development and agriculture. This includes the intermittent stream shown on USGS topographic maps known as “Industrial Creek” intermittent stream that flows through the main “valley” and bisects the Esperson and Riverwalk properties approximately 1.5 miles southwest of the project site. The Watson stream basin flows through the Brann and Gibbs properties northwest of the project site along the westerly side of the business park area 0.3 miles west of the project site (City of Rio Vista, 2002).

The responsibility of protecting the quality of surface and groundwater of this region is that of the Central Valley Regional Water Quality Control Board (CVRWQB). To support its objective, the CVRWQB adopts a Basin Plan which contains water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives. In part this is done through the antidegradation policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. In part, this states, “Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.”

Urban runoff and other non-point source discharges are regulated by the 1972 federal Clean Water Act, through the National Pollutant Discharge Elimination System (NPDES) permit program established by the US Environmental Protection Agency (EPA). The NPDES stormwater permit program is organized in two different phases, depending on where the stormwater discharges originate.

Specifically related to cannabis cultivation, the Cannabis General Order requires cannabis cultivation operations are required to obtain coverage under the State Water Resources Control Board's General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities Order No. WQ 2017-0023-DWQ (the Cannabis General Order). Cultivators that divert and store surface water (stream, lake, subterranean stream, etc.) to irrigate cannabis also need a valid water right.

Indoor cannabis cultivation, may be conditionally exempt from this order if it occurs within a structure with a permanent roof, a permanent relatively impermeable floor (e.g., concrete or asphalt paved), and comply with the Cannabis Policy and all applicable Requirements in Attachment A of the Order, and either: 1) discharge all industrial wastewaters generated to a permitted wastewater treatment collection system and facility that accepts cannabis cultivation wastewater; or 2) collect all industrial wastewater in an appropriate storage container to be stored and properly disposed of by a permitted wastewater hauler at a permitted wastewater treatment facility that accepts cannabis cultivation wastewater.

Specifically related to construction stormwater, the Construction Stormwater General permit relates to project that disturb greater than one acre of soils. These projects 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).

Clean Water Act Section 404 Permit and the Section 401 permit are involved if a project would discharge dredged or fill material in navigable waters or wetlands. The 404 permit is issued through the United States Army Corps of Engineers (USACE) and would be reviewed by the CVRWQB to ensure that discharge would not violate water quality standards.

Other water quality issues managed by the CVRWQCB, include Waste Discharge permits to the land. This includes wastewater discharged by on-site wastewater treatment systems such as septic systems and leach fields. Specific to cannabis, irrigation runoff, water treatment effluent, cleaning agents, and wash waters are of particular concern if the discharges of these wastewaters are to an on-site wastewater system. Such systems must obtain separate regulatory authorization, such as waste discharge requirements (WDRs), a conditional waiver of WDRs, or other permit mechanism, prior to discharge.

The CVRWQCB regulates projects that could require dewatering, and if the water would be discharged to land. In such an instance, coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the CVRWQB Board's Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085 would be required.

The City's consideration related to post construction water quality is reflected in the Phase I and II Municipal Separate Storm Sewer System (MS4) permits. These permits require the Permittees (typically a city or other local jurisdiction) to reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs). 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.

The City of Rio Vista has adopted a storm water management ordinance that is intended to protect and promote the health, safety and general welfare of the citizens of the City by controlling non-storm water discharges. Stormwater Management Ordinance is contained in Title 132, Chapter 13.20 – Storm Water Management and is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC, Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), the NPDES, and the California General Permit for the Discharge of Storm Water from Small Municipal Separate Storm Sewer Systems (MS4). (Ord. 009-2014 § 1) (City of Rio Vista, 2010). Because of the size and population of the City, the Phase II MSR requirements would be applicable.

The applicable regulations discussed above that related to the proposed project are discussed in further detail below. It should be noted that not all of the permits that could be required of a particular project, would be needed for the proposed project. Accordingly, the proposed project does not propose to use an on-site wastewater disposal system; the proposed project would not require a dewatering permit; and would not impact any 401 or 404 waters.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction Related Discharges

The proposed project includes ground disturbance that would result in removal of vegetation, barring of the soil, excavation and grading (cut and fill), potential for stockpiling soils, and construction-related activities, involving the use of materials such as vehicle fuels, lubricating fluids, and solvents. These activities could result in soil erosion or siltation and subsequent water quality degradation off-site if runoff, or runoff containing sediments or other pollutants is discharged from the site.

Because the proposed project would disturb more than one acre of land, the proposed project would be required to comply with the requirements of the NPDES General Permit. Permitting conditions helps control water pollution by regulating point source and non-point sources that could discharge pollutants into receiving waters. The City of Rio Vista is within the jurisdiction of the CVRWQCB and is subject to the waste discharge requirements of the NPDES Permit.

The proposed project also would also be required to obtain a General Construction Permit. The General Construction Permit requires implementation of a SWPPP with BMPs such as stabilization of construction entrances, straw wattles, and placement sediment filters on existing inlets. The SWPPP would also contain a site map(s) showing the construction perimeter, existing and proposed buildings, storm water collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and a visual monitoring program.

This City is consistent with these requirements as shown in Stormwater Management Ordinance contained in Title 132, Chapter 13.20 – Storm Water Management. The City would ensure all permitting conditions are followed by following Section 13.20.030 – Authority to Condition or Deny. This section states that the director can condition or deny any discharge, and further sub section A) the director is

authorized to issue permits, restricting or limiting the nature and/or volume of any discharge to the storm water system. It further stipulates that all permits issued under this authority must comply with the provisions of this ordinance and/or variances authorized by the City Council.

It should be noted, because the proposed project is indoor cultivation, has a concrete floor and full roof, the proposed project would be conditionally exempt from SWRCB Order WQ 2019-0001-DWQ. Nonetheless, the proposed project would provide all relevant documentation of the conditionally exempt status to CDFA, and would still obtain coverage under the Waiver included in general order. This would ensure the waiver was appropriately applied to the proposed project.

Preparation, implementation, and participation with both the NPDES General Permit and the General Construction Permit (SWPPP and BMPs) as well as following City requirements, would reduce project grading and construction effects on water quality. As a result, short-term construction impacts associated with water quality standards and wastewater discharge requirements would be less than significant.

Operational Related Discharges

The proposed project would create impervious surfaces within the site that is currently undeveloped and covered by soil, vegetation, and a remnant runway. The proposed project also includes two structures and hardscape for parking lots and interior circulation. 10% of the site would be landscaped. This would result in an increased potential for surface water run-off from the site as less water would be able to infiltrate after rain events.

The proposed project would include an on-site storm drainage system to collect intermittent rainwater flows. The storm drainage system would be designed to accommodate all flows and would implement integrated management practices to treat the drainage area. Accordingly, as required by City Phase I and II Municipal Separate Storm Sewer System (MS4) permits, the City would ensure the project applicant would use low impact development (LIDs) strategies. The LIDs would include source control BMPs such as marked inlets stating, "No Dumping – Drains to Bay," landscaped areas would be used to the extent feasible to promote infiltration, and runoff from sidewalks and parking lots would be collected and flow to bioretention areas as feasible.

Compliance with the MS4 permit, as verified by the City prior to final project approval, would ensure the proposed project includes applicable design concepts for LIDs and the post construction BMPs for source control. The City would communicate with the applicant to verify all measures remain in place and are functional through the life of the proposed project. To further ensure all requirements are adhered to, the proposed project includes MM-HYD-1. With implementation of this measure and City efforts to ensure compliance construction and operational impacts associated with water quality standards and wastewater discharge requirements would be less than significant.

MM HYD-1: Construction Water Quality Plan. Prior to issuance of any grading permit, the applicant shall submit to the satisfaction of the City Community Development Department, a Storm Water Pollution Prevention Plan (SWPPP) that satisfies the requirements of the National Pollutant Discharge Elimination System (NPDES) and State General Permit for construction. The SWPPP shall incorporate Best Management Practices (BMPs) to control runoff and sedimentation in accordance with all CVRWQCB as well as City requirements. Recommended BMPs for the construction phase may include the following:

- Stockpiling and disposing of demolition debris, concrete, and soil properly;
- Protecting existing storm drain inlets and stabilizing disturbed areas;
- Implementing erosion controls;
- Properly managing construction materials; and
- Managing waste, aggressively controlling litter, and implementing sediment controls.

Significance of Impact After Mitigation:

Implementation of MM-HYD-1 and conformance with all applicable regulations as conditions of project approval would reduce impacts to less than significant.

b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

According to the 2010 City of Rio Vista Urban Water Management Plan, water in the City is supplied via 7 groundwater wells in the Solano Sub-basin. The Solano Sub-basin lies in the southwestern portion of the Sacramento Basin and the northern portion of the Sacramento-San Joaquin Delta. Primary waterways in and bordering the basin include the Sacramento, Mokelumne, and San Joaquin Rivers, the Sacramento River Deep Water Ship Channel, and Putah Creek. As of 2010, the City had approximately 4,225 acres of land within its water service boundary. At that time there were approximately 2,213 acres (52%) that was developed (City of Rio Vista, 2010). It should be noted that not all developed land contains impervious surfaces. Much of this area would contain landscaping and other pervious areas that facilitate infiltration. Due to the slow growth within the City over the last 10 years, this value would not have substantially changed.

The proposed project occupies approximately 1.48 acres that is largely undeveloped and consists of soil and upland ruderal vegetation. There is the remnant of a former airport runway that cuts diagonally across the project site and covers approximately 5,400 sf. This area of the site is impermeable. Construction and operation of the proposed project would reduce the amount of impermeable surface on the site and reduce the site's potential to facilitate groundwater recharge. To minimize these effects, the proposed project would include LIDs including conducting run-off from hardscape to landscaped areas and inclusion of drainage systems that could minimize runoff and facilitate infiltration. As part of the overall redevelopment plan for the Business Park, the City has incorporated a retention/detention basin which would receive stormwater flows from the project site and other redeveloped areas.

According to most recently published City Consumer Confidence Report dated March 2018, the City pumped approximately 689,842,000 gallons of water from the wells (City of Rio Vista, 2018). The wells are not currently adjudicated (City of Rio Vista, 2015). This is the equivalent of approximately 2,117 acre feet. Additionally, as a member of the Solano County Water Authority (SCWA), the City of Rio Vista eventually will hold rights to 1,500 acre feet of water from the North Bay Aqueduct project (NBA). However, because the City is a significant distance from the NBA facility, it is more likely the City would trade its rights to that water for additional Sacramento River water if needed. Future water sources may include additional wells, recycled water, the Sacramento River, and purchased water from the Solano County Water Agency (City of Rio Vista, 2010).

The proposed project would use water supplied by the City from the above listed sources. With the incorporation of water efficient growth techniques, the proposed project is estimated to require approximately 7,600 gallons per week or a total of 364,800 gallons per year accounting for weeks no active cultivation would occur. This would equate to approximately 1.1 afy of water, or approximately 0.005% of water pumped in 2018. The proposed project may implement a rainwater collection system and would reuse the water from the dehumidifiers, which would reduce water from the City.

Based on 1.48 acre project site would occupy a portion of the former Rio Vista Municipal Airport that is planned to be reused and redeveloped as a business park by the City. The relatively small volume of water required by the proposed project, and the use of LID that would help facilitate infiltration and groundwater recharge, the proposed project would have a less than significant impact on groundwater and the basin. No mitigation is required.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i. *Result in substantial erosion or siltation on- or off-site?*

The project site is flat and slopes slightly to the south. The project site does not contain any stream or rivers, nor would it modify any water of the US. The proposed project does include the construction and grading of approximately 1.48 acres, the majority of which would be converted to impermeable surfaces including the roof of the two proposed structures, and driveways, parking lot, and pedestrian pathways. The project site; however, would include approximately 5,445 sf of landscaped areas (approximately 10% of the project site). The proposed project would be designed to convey runoff to these locations and facilitate infiltration. In addition, as discussed in a) above, the proposed project would comply with all applicable NPDES permitting procedures and implement a SWPPP with BMPs verified by the City. These measures would reduce impacts associated with erosion and/or siltation. Therefore, while the proposed project would change the drainage pattern, the alterations would not result in substantial erosion or siltation. In addition, implementation of mitigation measure MM HYD-1, would ensure impacts would be less than significant.

ii. *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?*

The project site is flat and slopes slightly to the south and grading would be minimal to achieve the level surface needed to construct the proposed project. Due to this minimal change, the topography of the site would not be substantially altered. No streams, rivers, or any other water would be affected. The proposed project would develop the majority of the site with new impervious surfaces that would reduce the rate of percolation in those areas and that could concentrate and accelerate surface runoff in comparison to the existing conditions. The proposed project does include landscaped areas that would facilitate infiltration and reduce the effects of the new impervious surfaces. In addition, the BMPs associated with the SWPPP that would be designed to address the new drainage pattern would prevent flooding on- or off-site. Therefore, while the proposed project would change the existing drainage pattern, it would not be substantially altered such that either the increased rate or amount of surface runoff would

not be accommodated by existing and planned drainage facilities such that the proposed project would result in flooding on- or off-site. Impacts would be less than significant, and mitigation is not required.

- iii. 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?*

As discussed in ii) above, the BMPs required by the SWPPP would prevent sources of polluted runoff. The proposed project would result in slight modifications of the existing drainage patterns of the site, but the flows would be accommodated by the existing and planned drainage facilities. Substantial increases in polluted runoff would not occur during construction as a result of the measures such as silt fences, straw wattles, and hay bales to impede and slow potential runoff, and the use of LIDs and project incorporated landscape. These measures would facilitate infiltration and help filter pollutants from entering receiving waters. In addition, implementation of Mitigation Measure MM HYD-1, would ensure impacts would be less than significant.

- iv. Impede or redirect flood flows?*

As discussed in i), ii), and iii) above, construction and operational activities would slightly modify the existing drainage patterns of the site. The proposed project; however, is not located within a floodplain and there are no waters, rivers, or streams on the project site. Neither construction nor operation would have the potential to affect, impede, or redirect flood flows. The proposed project would be required to comply with the NPDES permitting requirements as well as be all City MS4 permitting prior to approval of any grading or construction permits. In addition, the proposed project is not located within a flood zone. The Federal Emergency Management Agency (FEMA) flood map service center shows that the project site is in a Zone "X" which is an area of minimal flood hazard. This is shown on plate 06095C0537E dated (05/04/2009). Therefore, impacts would be less than significant, and mitigation is not required.

- v. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

As discussed above, the proposed project would result in minor alterations to the site and existing drainage. The proposed project is not located within a flood zone. The FEMA flood map service center shows that the project site is in a Zone "X" which is an area of minimal flood hazard. This is shown on plate 06095C0537E dated (05/04/2009). The proposed project is 39 feet above mean sea level (amsl) and is located approximately 0.5 miles west of the Sacramento River which is at an elevation of approximately 2 feet. The proposed project is not located near an ocean and is not at risk of tsunami, and it is not near an enclosed body of water such as a lake or inland sea which would be susceptible to seiche. Therefore, no changes would occur within an areas susceptible to inundation cause by the listed sources. This impacts would be less than significant, and mitigation is not required.

- vi. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

As discussed above, the proposed project would result in the creation of impervious surfaces over a very small percentage of basin recharge area. The proposed project would occur within an area planned to be reused and redeveloped and is the former site of the Rio Vista Municipal Airport. Approximately 2,213

acres of development exist in the City, which is approximately 52% of the total 4,225 acre land area. The 1.48 acre site represent an increase of approximately 0.05% of development. In addition, the proposed project includes 10% of site for landscaping and the drainage design would help maintain existing drainage patterns and maximize flows to pervious areas and facilitate infiltration.

The City uses groundwater from the Solano Sub-basin as its primary water source. There is no groundwater management plan adopted for the basin (City of Rio Vista, 2010). On January 1, 2015, the Sustainable Groundwater Management Act was adopted. This act requires that a Groundwater Sustainability Agency (GSA) must be formed and the GSA is to develop, implement and enforce a groundwater sustainability plan. The GSA for the Solano Sub-basin was formed, and they would submit a plan to the California Department of Water Resources by January 21, 2022. The plan has not yet been submitted or adopted, hence, there is not groundwater management plan for the basin.

The 2015 UWMP, notes that groundwater levels in the Sub-basin are impacted by periods of drought due to increased groundwater pumping and less surface water recharge. The UWMP further notes the Sub-basin does recover quickly in "wet" years and historical trends indicate that water levels in the Sub-basin are not in decline.

Therefore, the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The proposed project would use a small volume of water, would use LIDs that would help facilitate infiltration and groundwater recharge, and because there is no groundwater management plan adopted, there would be no conflict in this regard. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

Cumulative impacts to hydrology and water quality could occur as new development, redevelopment, and existing uses are ongoing within the watershed and specifically within the reuse and redevelopment plan area of the former Rio Vista Municipal Airport. Based on previous growth trends, growth in the City is not anticipated to be substantial and would not significantly add to urbanization. New development and redevelopment projects would result in some increases in impervious surfaces, and thus could generate increased runoff and reduce infiltration capacity from the affected project sites. Future developments in the watershed would be required to comply with the SWRCB and CVRWQB. Depending on the size of future projects, they would be required to obtain and comply with all required water quality permits and develop Water Quality Control Plan, as needed and prepare and implement SWPPP, implement BMPs, including LID BMPs to minimize runoff, erosion, and storm water pollution. For projects outside the City but within the basin, the proposed project also would be required to comply with applicant County and City codes. As part of these requirements, projects would be required to implement and maintain source controls, and treatment measures to minimize polluted discharge and prevent increases in runoff flows that could substantially decrease water quality. Therefore, taken in conjunction with past, present, and reasonably foreseeable projects, the proposed project is not expected to cause substantial increases in storm water pollution. With compliance with State and local mandates, cumulative impacts would be less than significant, and project impacts would not be cumulatively considerable.

4.11 Land Use and Planning

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

a) Physically divide an established community?

The project property occupies 1.48 acres in the City within the boundaries of the former City of Rio Municipal Airport. The former airport site is planned for redevelopment with industrial uses and has a RVGP land use designated as Industrial/Employment Limited (I-E-L) and is zoned as a Business Park (B-P). The project site is vacant with no built structures. A portion of the project site is occupied by an overgrown runway. Surrounding uses include vacant land, industrial uses, and other remnant hardscape from the airport.

The nearest residential area is approximately 0.25 miles to the west. Other residential areas are located approximately 0.5 miles to the northwest, 0.5 miles to southwest, and 0.5 miles to the south adjacent to the Sacramento River. The former airport property is not used as a travel corridor between the existing neighborhoods. These communities are already separated in space and not directly connected. The residential areas; however, are linked via existing roadways including Airport road to the east of the project site and Hwy 12 to the west. The proposed project would not affect or impede travel on either roadway. Therefore, the proposed project would not result in the physical division of an established community and impacts would not occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project is a cannabis related business and it would follow the development review and design and approval process set forth by the City. This process would ensure the proposed project is consistent with all applicable land use planning, policy, and regulatory documents. This process would enable the City to condition the project prior to approval. Cannabis related businesses such as the proposed project are specifically listed as an allowable use within the business park and are anticipated to occupy the area. The City of Rio Vista Municipal Code Chapter 17.70 Cannabis Businesses, sets forth

the needed project components including security plans, access requirements, and needed ventilation. The Municipal Code defines the land use designations and zones in which cannabis is authorized (Business Park (B-P) and Industrial Park and/or Industrial (I-P-I) designations). Because the proposed project is consistent, neither a General Plan Amendment nor a Zone Change are required.

In addition to the discretionary approvals required by the City, the proposed project would be available for the CEQA required review and comment period afforded to trustee and responsible agencies, and any other public agency or member of the public wishing to comment. This would help ensure compliance with all applicable, plans, policies, regulations, standards, and that conditions of approval are included if needed. As noted within the other sections of analysis, the proposed project would have no impacts, a less than significant impact, or less than significant impact with mitigation to all environmental resource areas. Therefore, the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Cumulative Impacts

The proposed project is consistent with all applicable land use planning and regulatory documents. In addition, due to its location within the former site of the Rio Vista Municipal Airport, an area which is designated for industrial uses and zoned as a Business Park (B-P), the proposed project is consistent with applicable City planning documents. The proposed project would not physically divide an established community and would not block any existing travel ways. Taken in conjunction with other past, present, and reasonably foreseeable projects within the business park, cumulative impacts also would be less than significant. All other projects would require City and agency review to ensure consistency with applicable plans, policies, and regulations, prior to approval. Similarly, other projects in the vicinity and located in the former airport site, also would not make a cumulative contribution to the physical division of an established community. Therefore, cumulative impacts of the proposed project would be less than significant, and mitigation is not required.

4.12 Mineral Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	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

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?*

The CRVGP discusses mineral resources in the context of Open Space which includes agricultural lands, mineral extraction lands, and natural habitats. The project site and surrounding areas are designated for industrial uses and zoned for use as a business park. There are no adjacent open space areas that would be used for mineral extraction. Per the CDOC, none of the City or surrounding areas are noted as mineral resource zones [(CDOC, 2015) - Geologic Energy Management Division (CalGEM, formerly the Division of Oil, Gas, and Geothermal Resources (DOGGR)]. There are no active, inactive, or capped oil wells located within the project site. The nearest well is an idle dry gas well owned by the California Resource Production Corporation (CRPC) near the intersection of Poppy House Road and St. Francis Way. This area is approximately 0.25 miles southwest of the project site (CalGem, 2018). The proposed project would not affect the ability of CRPC to operate the well or impede the use of any other area that may contain mineral resources. Therefore, no impacts would occur.

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?*

As discussed above, the proposed project would not affect the ability of any person or entity to use or extract mineral resources. The City has designated the project site and surrounding area for industrial uses as part of a business park on the former site of the Rio Vista Municipal Airport. In addition, due to the patterns of development and ongoing redevelopment efforts, it would not be feasible to extract develop a mine and extract mineral resources from the site or area due to land use conflicts that would occur with or without the proposed project. Therefore, because the project site does not contain known mineral resources, would not conflict with any resource recovery plan, and would be consistent with the City’s intent for reuse and redevelopment, impacts would not occur.

Cumulative Impacts

As discussed above, the proposed project and surrounding area is not designated for mineral extraction and is consistent with City planning and development goals. Similarly, other past, present, and reasonably foreseeable projects in the vicinity also would not conflict with these plans or reduce the availability or access to a known mineral resource. Therefore, cumulative impacts would not occur.

4.13 Noise

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or 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	

Fundamentals of Sound and Environmental Noise

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB). The decibel scale is a logarithmic scale that describes the physical intensity of the pressure vibrations which make up any sound. The pitch of the sound is related to the frequency of the pressure vibration. Because the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise, on the other hand, is typically defined as unwanted sound because of its potential to disrupt sleep, to interfere with speech communication, and to damage hearing. A typical noise environment consists of a base of steady “background” noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway.

Addition of Decibels

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Sound Propagation and Attenuation

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as roadway noise, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3 dB per doubling of distance is assumed.

Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise upon people is largely dependent upon the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The L_{eq} is a measure of ambient noise, while the Ldn and CNEL are measures of community noise. Each is applicable to this analysis and defined below.

- L_{eq} , the equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- Ldn, the Day-Night Average Level, is a 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA Ldn.
- CNEL, the Community Noise Equivalent Level, is a 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 PM to 10:00 PM and a 10 dBA “weighting” added to noise during the hours of 10:00 PM to 7:00 AM to account for noise sensitivity in the evening and nighttime, respectively.

The logarithmic effect of these additions is that a 60 dBA 24-hour Leq would result in a measurement of 66.7 dBA CNEL.

- Lmin is the minimum instantaneous noise level experienced during a given period of time.
- Lmax is the maximum instantaneous noise level experienced during a given period of time.
- Percentile Noise Level (Ln) is the noise level exceeded for a given percentage of the measurement time. For example, L10 is the noise level exceeded for 10 percent of the measurement duration, and L50 is the noise level exceeded for 50 percent of the measurement duration.

There are no existing noise sensitive land uses in the immediate project vicinity. The nearest sensitive receptors are residential uses located approximately 925 feet to the west of the project site.

The RVGP identifies an exterior noise standard of 65 dBA Ldn for residential land uses. Noise mitigation measures are required for projects that would result in a substantial increase (i.e., 3 dBA, or greater) in ambient noise levels that would exceed the City's exterior noise level of 65 dBA Ldn for residential land uses. The City also limits typical construction activities to between the hours of 7:00 AM and 7:00 PM Monday through Friday. Construction is not allowed on weekends. Project construction would be required to comply with these hours.

The City's Noise Ordinance (Title 17, Noise Control, Chapter 17.52) identifies prohibitions and noise standards intended to protect citizens from unnecessary and unusually loud noises that could adversely affect the peace, health, and safety of community residents. For noise sources affecting residential districts, noise levels may not exceed 50 dBA Leq.

- a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Construction

Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g. land clearing, grading, excavation, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. During construction, exterior noise levels could affect the residential neighborhoods surrounding the construction site. Project construction would occur approximately 925 feet from existing single-family residences to the west. Noise levels typically attenuate (or drop off) at a rate of 6 dB per doubling of distance from point sources, such as industrial machinery.

Construction activities associated with development of the proposed project would include demolition of approximately 5,400 sf of existing airport runway/taxiway pavement, site preparation, grading, paving, building construction, and architectural coating. Such activities would require graders, scrapers, and tractors during site preparation; graders, dozers, and tractors during grading; cranes, forklifts, generators, tractors, and welders during building construction; pavers, rollers, mixers, tractors, and paving equipment during paving; and air compressors during architectural coating. Grading and excavation phases of project construction tend to be the shortest in duration and create the highest construction noise levels due to the operation of heavy equipment required to complete these activities. It should be noted that only a limited amount of equipment can operate near a given location at a particular time. Equipment typically used during this stage includes heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders,

and scrapers. Operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three to four minutes at lower power settings. Other primary sources of noise would be shorter-duration incidents, such as dropping large pieces of equipment or the hydraulic movement of machinery lifts, which would last less than one minute. According to the applicant, no pile-driving would be required during construction and as such a project condition of approval will be included in the project permit to reflect the project's proposed construction.

Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels associated with individual construction equipment are listed in *Table 10: Typical Construction Noise Levels*.

The City of Rio Vista does not have construction noise standards. As shown in *Table 10* noise levels at the sensitive receptor are below 89 dBA at 200 feet. The nearest sensitive receptor to the project site is located approximately 925 feet west of the site. The highest anticipated construction noise level of 75.5 dBA at 925 feet is expected to occur during the demolition phase (pneumatic tools). Additionally, the majority of construction would occur throughout the project site and would not be concentrated at a single point near sensitive receptors. Construction would comply with Section 17.25.030 of the municipal code, limiting construction hours within 500 feet of a residential unit to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday.

Table 10: Typical Construction Noise Levels

Equipment	Typical Noise Level (dBA) at 50 feet from Source ¹	Typical Noise Level (dBA) at 200 feet from Source ¹	Typical Noise Level (dBA) at 925 feet from Source ¹
Air Compressor	80.0	68.0	54.7
Backhoe	80.0	68.0	54.7
Compactor	82.0	70.0	56.7
Concrete Mixer	85.0	73.0	59.7
Concrete Pump	82.0	70.0	56.7
Concrete Vibrator	76.0	64.0	50.7
Dozer	85.0	73.0	59.7
Generator	82.0	70.0	56.7
Grader	85.0	73.0	59.7
Impact Wrench	85.0	73.0	59.7
Jack Hammer	88.0	76.0	62.7
Loader	80.0	68.0	54.7
Paver	85.0	73.0	59.7
Pneumatic Tool	85.0	89.0	75.7
Pump	77.0	83.0	69.7
Roller	85.0	73.0	59.7
Saw	83.0	65.0	51.7
Scraper	85.0	73.0	59.7
Shovel	82.0	64.0	50.7
Truck	84.0	73.0	59.7
Note: ¹ Calculated using the inverse square law formula for sound attenuation: $dBA_2 = dBA_1 + 20 \log(d_1/d_2)$ Where: dBA_2 = estimated noise level at receptor; dBA_1 = reference noise level; d_1 = reference distance; d_2 = receptor location distance Source: Federal Transit Administration, <i>Transit Noise and Vibration Impact Assessment Manual</i> , September 2018.			

As noted earlier, there are residential uses located approximately 925 feet west of the project site. Commercial and industrial facilities are located approximately 200 feet east and south of the project site. There are no noise sensitive uses immediately adjacent to the site. Based on the noise levels discussed above and the distance to nearest receptors, construction noise would result in a less than significant impact.

Operational

Project operations, includes indoor cannabis cultivation within fully enclosed and securable structures. No significant noise sources are predicted or planned for this use. Other noise sources would include increased vehicle traffic to the site. However, with up to 13 employees on site at one time and associated traffic, this represents a minimal increase in an environment that has existing truck and industrial noise from adjacent uses. In comparison to existing and future background conditions, the proposed project would result in negligible change once operational. As a result, this impact would be less than significant.

b) Generation of excessive groundborne vibration or groundborne noise levels?

There are no federal, state, or local regulatory standards for ground-borne vibration. However, various criteria have been established to assist in the evaluation of vibration impacts. For instance, the California Department of Transportation (Caltrans) has developed vibration criteria based on human perception and structural damage risks. For most structures, Caltrans considers a peak particle velocity (ppv) threshold of 0.2 inches per second (in/sec) to be the level at which architectural damage (i.e., minor cracking of plaster walls and ceilings) to normal structures may occur. Below 0.10 in/sec ppv there is virtually no risk of 'architectural' damage to normal buildings. Levels above 0.4 in/sec ppv may possibly cause structural damage (Caltrans 2002).

In terms of human annoyance, continuous vibrations in excess of 0.1 inches per second ppv are identified by Caltrans as the minimum level perceptible level for ground vibration. Short periods of ground vibration in excess of 0.2 inches per second can be expected to result in increased levels of annoyance to people within buildings (Caltrans 2002).

Increases in groundborne vibration levels from the proposed project would be primarily associated with short-term construction-related activities. Project construction would require the use of off-road equipment, such as tractors, concrete mixers, and haul trucks. The proposed project is not expected to use major groundborne vibration-generating construction equipment, such as pile drivers.

Construction equipment groundborne vibration levels are summarized in *Table 11: Typical Construction Equipment Vibration Levels*. Based on the vibration levels, ground vibration generated by construction equipment would not be anticipated to exceed approximately 0.089 inches per second peak particle velocity (ppv) at 25 feet. Predicted vibration levels at the nearest on- and off-site structures (200 feet for non-residential structures and 925 feet for residential structures) would not exceed the minimum recommended criteria for structural damage and human annoyance (0.2 and 0.1 inches per second ppv, respectively). As a result, this impact would be less than significant.

Table 11: Typical Construction Equipment Vibration Levels

Equipment	Peak Particle Velocity at 25 Feet (in/sec)	Peak Particle Velocity at 925 Feet (in/sec) ¹
Large Bulldozer	0.089	0.0004
Loaded Trucks	0.076	0.0003
Rock Breaker	0.059	0.0003
Jackhammer	0.035	0.0002
Small Bulldozer/Tractors	0.003	0.0000

1. Calculated using the following formula: $PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}$, where: PPV_{equip} = the peak particle velocity in in/sec of the equipment adjusted for the distance; PPV_{ref} = the reference vibration level in in/sec from Table 7-4 of the Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, 2018; D = the distance from the equipment to the receiver.
Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

- c) *For a project located within the vicinity of a private airstrip or 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?*

The proposed project is within two miles of the Rio Vista Municipal Airport. However, the proposed uses, indoor cultivation and manufacturing, are not sensitive to aircraft noise and the proposed project would not be within the direct flight path of aircraft. Therefore, the proposed project would have a less than significant impact.

Cumulative Impacts

As discussed above, the proposed project would not cause a new noise impact to occur, nor an increase in the severity of a noise impact. Therefore, the proposed project would not cause either a new cumulative impact to occur, nor an increase in the severity of a cumulative impact previously disclosed.

4.14 Population and Housing

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?			X	

a) *Induce substantial unplanned 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)?*

The project site is on the former site the Rio Vista Municipal Airport designated by the RVGP for use as Industrial/Employment Limited (I-E-L) and is zoned as Business Park (B-P). The proposed project is consistent with the plan and zoning. The proposed project is considered an industrial use and does not include new dwelling units and would not induce population growth on the project site. The project site would be connected to existing off-site roadways in the area but would not extend any streets or infrastructure to any area not already planned for development. The proposed project within the interior of the business park and would be served by existing roadways or those already planned as part of the redevelopment. In addition, the proposed project would be served by planned utilities and would not result in the extension of services to any off-site area.

The proposed project would have two owners working full-time, and anticipates the need for approximately three additional full-time employees, and up to eight part time employees. The proposed project would not induce substantial population growth by creating employment opportunities. According to the California Department of Finance (CDOF), the City had a population of approximately 9,594 people in January of 2019 and a population of approximately 9,987 in January of 2020. This was an increase of 393 residents and represents population growth of approximate 4.1% (CDOF, 2020).

The proposed project would draw employees from within the City and nearby areas within Solano County. According to the California Employment Development Department (CEDD) The unemployment rate in Solano County was 14.2% in May 2020, down from a revised 15.1% in April (CEDD, 2020). Within the City, unemployment was 17.4% as of June 2020 (CEDD, 2020). Based on the current unemployment numbers

and growth trends, jobs created by the proposed project are anticipated to be filled from the existing labor pool in the City and County. Therefore, the proposed project would not result in substantial population growth. Impacts would be less than significant.

b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The proposed project would not require demolition of any housing. The project site is currently undeveloped. The project site is designated for industrial uses and zoned as a Business Park as part of the redevelopment efforts of the former Rio Vista Municipal Airport. Therefore, the proposed project would not displace any residents and replacement housing would not be required. No impacts would occur

Cumulative Impacts

The proposed project is consistent with the intent of RVGP and Zoning Ordinance for redevelopment and reuse of the former Rio Vista Municipal Airport. The proposed project does not include any residential units that would result in population growth and does not include extension of services or utilities that would encourage other development in off-site areas. In addition, the proposed project is anticipated to employ local residents and residents in the surrounding County areas. Thus, taken in sum with other past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to population or housing growth. Impacts would be less than significant.

4.15 Public Services

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
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	

In this subsection, the proposed project is evaluated for its impact on existing school, police, fire, governmental, and emergency services in Rio Vista. Fire and police protection to the project site is provided by the City of Rio Vista Fire Department and the City of Rio Vista Police Department, respectively. The project site is located in the service areas of the River Delta Unified School District. Parks and recreation facilities in the city are the responsibility of the Rio Vista Parks Department.

- 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?*

The City of Rio Vista Fire Department (RVFD) provides 24 hour a day seven days a week to the City of Rio Vista and Delta Fire Protection District. RVFD provides emergency response services for, but not limited to, structural fires, wildland fires, limited hazardous materials events, vehicle extrication, and technical rescue. The RVFD receive and provide Automatic Aid to the City of Isleton, and River Delta Fire Protection District, and are participant in the Solano County Mutual Aid Agreement (City of Rio Vista, 2020).

RVFD operates out of one fire station at 350 Main Street. RVFD maintains a daily staffing target of 4 personnel including 1 Fire Captain, 1 Engineer, 1 Firefighter Paramedic and 1 Reserve Firefighter. Staffing is augmented with the utilization of either Volunteer or Reserve Firefighters. The department apparatus includes: 2 Type-1 Engines, 1 Type-3 Engine, 1 Water Tender, 1 (95') Ladder Truck (platform), 1 light-Rescue, 1 Squad and 2 staff vehicles (City of Rio Vista, 2020).

The proposed project includes construction and operation of two approximate 15,000 sf cannabis facilities that would be constructed in two phases. The proposed project anticipates 2 owners working full-time, approximately 3 additional full-time employees, and up to 8 part time employees. As discussed in the Population and Housing Section above, the proposed project anticipates hiring workers from within the City and surrounding communities. These workers would already be using existing local emergency services should the need arise. The proposed project; therefore, would not result in significant environmental impacts in this regard. The proposed project would not substantially increase the population such that demand for services such that a new fire station would be required to maintain acceptable service ratios, response times, or for other fire protection needs.

Construction and operation of the proposed project could result in increased demand for fire protective services should a call originate from the project site. Prior to project approval, the City would ensure that construction activities and all project plans would include all applicable local and State fire codes. Fire protection services also are planned for in the RVGP. The RVGP notes that a fire facility is needed to maintain recommended response times to the northwest neighborhoods (Trilogy, Gibbs and Brann Ranches, and the Rio Vista Municipal Airport). The RVGP further states that the new fire station facility would be located within the business park area (City of Rio Vista, 2002) which is already planned to be developed. The proposed project would pay development impact fees in accordance with the City fee schedule to offset costs of the new but planned fire station. With conformance to these policies, the City would maintain adequate Fire Department performance and response standards to the project site and balance of the community.

Therefore, the proposed project would not increase demand for fire protection services such that new facilities, beyond those which are already planned, would be needed. Impacts would be less than significant, and mitigation is not required.

ii. Police protection?

Law enforcement services to the City are provided through contract with the Solano County Sheriff's Office. The City's agreement with Solano County provides for a total of 12 law enforcement personnel. Solano County deputies serve the City in uniform as City Police and use City police vehicles. The 12 personnel are comprised of 1 Lieutenant Sheriff, 2 Sergeant Sheriffs, and 9 Deputy Sheriffs on rotating 12-hour shifts. One of the deputies serves as a canine officer and one as a School Resources Officer (SRO)/Problem Oriented Policing Officer during the weekdays. Based on the existing estimated City population 9,987, this equates to approximately 1.21 officers per 1,000 residents.

The Police Department is located at 50 Poppy House Road within the City and within the former Rio Vista Municipal airport business park. The police station is less than 0.25 miles from the project site. The Police Department participates in numerous community outreach programs and events and provides law enforcement services through patrol and field services, traffic enforcement, and additional services such as responding to requests for extra patrol, use of a radar trailer, making community presentation, etc.

The proposed project would not increase the local population or add additional streets into the police patrol network. The proposed project would not result in significant environmental impacts related to the department needing new facilities to maintain acceptable service ratios, response times, or other performance metrics. As part of the development and approval process, the applicant, in accordance with Section 17.70.030 Commercial Cultivation of Cannabis regulated, would be required to implement a security plan. The security plan requires review by the building office and police department to ensure there is adequate mechanical and electronic security systems for the proposed project operations. The project applicant also would pay appropriate impact fees related to police protection and is responsible for constructing all on-site security infrastructure needed to serve the project.

The proposed project is in close proximity to the existing police station, additionally, the project would not result in substantial increase directly or indirectly of City population, nor would it include a robust security system. Thus, new law enforcement facilities that could have an effect on the environmental would not be required. Impacts would be less than significant, and mitigation is not required.

iii. Schools?

The proposed project is within the River Delta Unified School District (RDUSD). The proposed project is an industrial development that would be used for cannabis cultivation and would not directly result in population increase or generate new students. The proposed project is anticipated to need 5 full-time employees including 2 owners, and eight part-time employees. Due to the existing high unemployment rate and proximity to the existing workforce within the City and surrounding communities, employees are anticipated to come from the existing population base. Accordingly, the proposed project would not require the influx of new residents resulting in substantial population growth and increased demands on schools. Thus, the construction of new school facilities would not be required as a result of project implementation and impacts in this regard would be less than significant.

iv. Parks?

The proposed project would be served for recreational resources by the City of Rio Vista Parks Department. The City has seven parks including, Bruning Park (1.5 acres), Crescent Park (0.25 acres), Drouin Park (1.1 acres), Egbert Field Park (5 acres), Homecoming Park (1 acre), Memorial Park (1.5 acres), Val de Flores Park (3.0 acres), Waterfront Promenade Boat Launch and Picnic Area, and two other recreation facilities including a basketball court and a small skateboard facility (City of Rio Vista, 2020).

The proposed project includes construction and operation of a cannabis facility that anticipates 2 owners working full-time, approximately 3 additional full-time employees, and up to 8 part time employees. As discussed in the Population and Housing Section above, the proposed project anticipates hiring workers from within the City and surrounding communities. These workers would already be using existing recreational resources. Thus, the proposed project would not increase demand for parks such that new

recreational areas would need to be constructed. Impacts would be less than significant, and mitigation is not required.

v. Other public facilities?

Other public facilities generally refer to facilities such as libraries, community services, and government operations. Library services to the City are provided by the Solano County Library which maintains the Rio Vista Library at 44 South Second Street in the City of Rio Vista. The library provides a selection of book, a meeting room, 14 public access computers with 2 reservation computers (all are customizable for dexterity, hearing, and visual needs), 1 public printer, 1 scanner, wifi, 1 self-service photocopier, and 1 microfilm/fiche reader.

The proposed project would result in the demand for approximately 5 full time employees and 8 part time employees, all of which are anticipated to come from within the City or surrounding community's that would, when need demands, already be using the existing other public facilities. Thus, the proposed project would not increase demand for other public facilities such that new facilities would need to be constructed. Impacts would be less than significant, and mitigation is not required.

Cumulative Impacts

As described above, the proposed project would be served by RVFD and would not result in substantial growth such that a new and unplanned fire station would be needed. Similarly, the proposed project would be served by the Solano Sheriff's Department through a contract with the City and act as Rio Vista Police. The proposed project would not result in a substantial increase in the service population or a use that would require substantially more police than presently accommodate City needs. The proposed project would be within the RDUSD but would not generate new students because the proposed project is not residential. Indirectly, the proposed project also would not induce a substantial population increase through the construction of homes such that new school(s) would be required. Similarly, the proposed project and new employees, should they come from outside the City, would be adequately served by existing parks and other public utilities. Therefore, taken in sum with past, present, and reasonably foreseeable projects, the proposed project would not make a cumulative contribution to increase demand for public services such that new and unplanned facilities would be needed. In addition, any future facilities that may be proposed and developed as part of future growth of the City, would undergo separate CEQA review. It is anticipated that impacts from these types and sizes of facilities, the same as the proposed project, would be less than significant. Thus, the proposed project would not make a significant cumulative contribution to impacts in this regard.

4.16 Recreation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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

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?*

The Parks Department of the City of maintains nine park facilities and two additional recreation sites including a basketball court and the Harris De Silva Skateboard park. In sum, the Parks department operates and maintains approximately 13 acres of parkland, excluding the acreage in the Waterfront Promenade Boat Launch and Picnic Area. This located provides direct access to the Sacramento River and hundreds of acres of waterway available for recreation. Based on the 13 acres of parkland, excluding the other three listed resources, the City provides 1.3 acres or parkland per thousand residents.

The proposed project consists of an industrial development that would be used for the cultivation of cannabis. As discussed in the Population and Housing sections and Public Service Section, above the proposed project would require 5 full time employees (including two owners) and up to 8 part time employees. The employees are anticipated to come from the City or surrounding areas and would already be using recreational resources. There is a potential that employees could move to the City to obtain work at the project site, but this increase would not be substantial and would not substantially increase in the use and/or deterioration of any recreational facilities. These impacts would be less than significant, and mitigation is not required.

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?*

The proposed project is an industrial development that would be used for the cultivation of cannabis. The proposed project does not propose to develop any recreational facilities, would not require the

expansion of, or construction of new recreational facilities that could have an adverse effect on the environment. For these reasons, impacts would not occur, and mitigation is not required.

4.17 Transportation

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The proposed project is consistent with the RVGP. The proposed project would be located within the former Rio Vista Municipal Airport which is planned to be reused and redeveloped for predominantly industrial uses. The proposed project is considered an industrial project and consistent with the business park zone and industrial designation.

Airport Road is designated as an Arterial Street and would be used to access the general project area. Both St. Francis Road and Poppy House Road are designated as Local or Neighborhood Streets and would provide access to the project site and internal roadways within the business part. The proposed project would not conflict with the operation of these roadways, any roadway within the City, or any other element of the circulation system. In addition, the proposed project does not include the construction of any new roadways but would take direct access via Richard Brann Drive which is an interior roadway within the business park. The driveways connecting to Richard Brann Drive would be designed in accordance with all city requirements, and ingress and egress of vehicles would not interfere with the function of any roadways.

Transit in the City consists of an on-demand bus system, Rio Vista Delta Breeze, which offers deviated fixed route bus service between Rio Vista, Isleton, Fairfield, Suisun City, Pittsburg / Bay Point BART Station and Antioch with connections to Lodi (City of Rio Vista, 2020). There are no existing or planned fixed stop

locations within or adjacent to the project site. The proposed project would not conflict with the operation of any existing transit line or service.

As discussed above, the proposed project is within the interior of the business park and would be accessed via existing and planned roadways. The proposed project; however, would not involve construction of any roadways, sidewalk, or bike lane improvements. All improvements would be made as the roads are developed and as required by City standards and as part of the planned circulation design within business park. The proposed project would make a fair share contribution to these transportation elements through payment of development impact fees.

Therefore, the proposed project would not conflict with a program plan, ordinance or policy addressing the circulation system. The proposed project does not include and would not conflict with any existing or development/extension of any transit route, roadway, or bicycle and pedestrian facility. Impacts would be less than significant, and mitigation is not required.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

In accordance with SB 743, the new CEQA Guidelines section 15064.3, subdivision (b) was adopted in December 2018 by the California Natural Resources Agency. SB 743 was codified in Public Resources Code section 21099, required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. SB 743 shifted to focus of determining the significance of transportation impacts to focus from vehicle congestion and delay to the use of vehicle miles travelled (VMT) to or from a development as stated in the Governor's Office of Planning and Research (OPR) Technical Advisory (2018).

The newly adopted guidance provides that a lead agency may elect to be governed by the provisions of this section immediately. On July 1, 2020, the provisions of this section became applicable statewide. The City has not yet formally adopted its updated transportation significance thresholds or its updated transportation impact analysis procedures. Section 15064.3(b)(3) provides, "that if existing models or methods are not available to estimate the VMT for a particular project being considered, a lead agency may analyze the project's vehicle miles traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc. For many projects, a qualitative analysis of construction traffic may be appropriate".

The proposed project would require approximately 5 full time employees and up to 8 part time employees. Deliveries shipment of supplies and products would occur approximately six time per week. Assuming that the 13 total employees travel to and from work every day and all 13 travel off-site for lunch every day, the total trips would be approximately 58.

Based on these estimates, the proposed project would not conflict with the OPR technical advisory on evaluating transportation impacts. OPR set forth the standard that if a project would not exceed 110 trips per day, it would not exceed the threshold or require a formal traffic study. This fact generally indicates impacts would be less than significant. In addition, because it is anticipated that employees would come from within the City or nearby communities, the travel distance from their homes to work would be minimal. Therefore, the proposed project is consistent with guidance criteria and would not exceed thresholds. Thus, the proposed project would have a less than significant impact in this regard and no mitigation is required.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would be accessed via two driveways on Richard Brann Drive. The main public access would be on the northerly side of the project site and would be wide enough to accommodate ingress and egress for two vehicles at a time. This driveway would be approximately 24 feet in width. A second 20-foot driveway for emergency access would be located on the southerly end of the proposed project. All project driveways would be constructed to current standards and safety regulations, and would comply with the City and Caltrans regulations, and design and safety standards of Chapter 33 of the California Building Codes (CBC) and the guidelines of Title 24 in order to create safe and accessible roadways.

Vehicles entering and exiting the site would have a clear view of Richard Brann Drive without obstructions. Specific design features would incorporate all applicable safety measures to ensure that adequate emergency access to the site and other properties surrounding the project site would not occur. Therefore, with the incorporated of the proposed design features and conformance to all applicable rules and regulations, related to roadway design and construction, the proposed project would have a less than significant impact in this regard.

d) Result in inadequate emergency access?

State and City fire codes establish standards by which emergency access may be determined. The proposed project would provide main vehicle access adequate to enable ingress and egress of two vehicles as well as emergency vehicle on the northerly side of the project site. A dedicated emergency lane would be provided on the southern side of the site. Both accesses would be linked to a fire lane behind the building providing unobstructed 360-degree access to all sides of the proposed structures. In addition, the proposed project would not inhibit the ability of local roadways to continue to accommodate emergency response and evacuation activities. The proposed project would not interfere with the City's adopted emergency response plan by creating any obstruction of hazards disallowing use of roadways. Prior to project approval all project planes would be reviewed by the City planning department and fire department to ensure all access is appropriately designed. Therefore, the proposed project would have a less than significant impact regarding emergency access.

Cumulative Impacts

The proposed project would not substantially increase traffic volumes and would not impede any emergency evacuation plan or emergency access to the project site or other site. The proposed project is within the former Rio Vista Municipal airport and is being developed as part of the overall reuse and redevelopment plan for the area. The City has planned for development within the roadway and is in the process of constructing and has plans to construct the balance of the interior roadways. All roadways would be constructed in accordance with City standards and in consideration of emergency evacuation needs and potential for emergency responses. Past, present, and reasonably foreseeable projects, in conjunction with the proposed project within the business park area would be reviewed and approved prior to any project approval. All other projects also would undergo a similar CEQA review, which would include an evaluation of transportation impacts. Therefore, taken in sum, the projects contribution to cumulative traffic impacts that would result from the 13 total employees (five full time and eight part-time) would be less than significant.

4.18 Tribal Cultural Resources

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?		X		
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		X		

- a) *Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
 - i. *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

- ii. *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

In compliance with PRC Section 21080.3.1(b), the City of Rio Vista provided formal notification to California Native American tribal representatives who previously requested notification from the City regarding projects within the geographic area traditionally and culturally affiliated with their tribe. Native American groups may have knowledge about cultural resources in the area and may have concerns about adverse effects from development on tribal cultural resources as defined in PRC Section 21074. The City of Rio Vista contacted the following tribal representatives via mailed correspondence on July 8, 2020. One response was sent to the City by the Yocha Dehe Wintun Nation on July 23, 2020. No other correspondence was received before this and none has been received since.

- Kletsel Dehe Band of Wintun Indians, Charlie Wright
- Confederated Villages of Lisjan, Corrina Gould
- Guidiville Indian Rancheria, Merlene Sanchez
- United Auburn Indian Community, Gene Whitehouse
- Yocha Dehe Wintun Nation, Anthony Roberts

The correspondence from the Yocha Dehe Wintun Nation indicated the project site is within their aboriginal territories and they have a cultural interest and authority within the area. They also indicated they are not aware of known cultural resources within or near the project site, but requested that their Cultural Resources Department be contacted if any new information or cultural resources are located.

As noted above, the project site has been extensively altered by prior ground disturbance and development. However, the potential exists for project implementation to affect previously unidentified tribal cultural resources. Compliance with PRC Section 21083.2 and corresponding mitigation measures in Section 4.5, Cultural (**MM CUL-1 and MM CUL-2**) would ensure the project would not cause a substantial adverse change in the significance of a tribal cultural resource. The listed mitigation also satisfies the request of the Yocha Dehe Wintun Nation from the July 30, correspondence Impacts would be less than significant with mitigation.

4.19 Utilities and Service Systems

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

The City of Rio Vista would provide water, wastewater, and storm drainage service to the proposed project. The City has two wastewater treatment facilities including the Beach Wastewater Treatment Plant (WWTP) and the Northwest WWTP. The Beach WWTP is near the westerly terminus of Beach Drive approximately 2.0 miles southwest of the project site. The Northwest WWTP is located approximately 0.75 miles northwest of the project site at the intersection of Airport Road and Church Road. Wastewater is conducted through the underground sewer system to the plants by approximately 41 miles of collections lines and if conducted by gravity flow and a series of pumps and lift stations.

The proposed project would tie into existing sewer lines that were installed as part of the ongoing reuse and redevelopment of the business park. The sewer lines were designed and constructed with adequate capacity to serve the area. All project tie ins to the existing system would be made according to City specification.

The City of Rio Vista Sewer System Management Plan (RVSSMP) from 2010 calculated the average and peak flow based on flows at three points that would capture the flows received from the ten basins. Total average flow over a 40-day period was 0.62 million gallons per day (Mgal/d) and peak flow taken during wet weather events over the same period was 4.6 Mgal/day. The average dry weather flow to the Beach WWTP is 0.51 Mgal/day and 0.21 Mgal/day to the Northwest WWTP. Wet weather peak average flows to the Beach WWTP for the 10-Year storm flow are 0.76 Mgal/day, and 0.25 Mgal/day to the Northwest WWTP.

According to the City of Rio Vista, the Beach WWTP has additional capacity equal to approximately 200 equivalent dwelling units (EDU). An EDU is the average amount of wastewater generated by a typical dwelling unit. Considering the proposed project involves the cultivation of cannabis and would be anticipated to generate as much wastewater as a typical residential unit, there would be adequate capacity to serve the proposed project. The proposed project does not include appliances such as dishwashers, washing machines, bathrooms with showers and baths that account for the large volume of wastewater generated by residential uses. In addition, the proposed project would not dispose of any cultivation related wastewater to the sewer system. Therefore, the proposed project would generate an incrementally small volume of wastewater compared to other uses and impacts in this regard would be less than significant.

The proposed project would use water supplied by the City from seven wells that pumped a total of approximately 2,117-acre feet (City of Rio Vista, 2018). The City also, as a member of the Solano County Water Authority (SCWA) will hold rights to 1,500-acre feet of water from the North Bay Aqueduct project (NBA) (Rio Vista, 2015). However, because Rio Vista is a significant distance from the NBA facility, it is more likely the City would trade its rights to that water for additional Sacramento River water if needed. Future water sources may include additional wells, recycled water, the Sacramento River, and purchased water from the Solano County Water Agency (City of Rio Vista, 2010).

The proposed project would use water supplied by the City from the above listed sources. With the incorporation of water efficient growth techniques, the proposed project is estimated to require approximately 7,600 gallons per week or a total of 364,800 gallons per year accounting for weeks no active cultivation would occur. This would equate to approximately 1.1 afy of water, or approximately 0.005% of water pumped in 2018. Therefore, considering the availability of existing water sources and the incrementally small increase in consumption, impacts in this regard would be less than significant.

Storm drainage facilities would be provided by the City of Rio Vista. The City's storm drainage system comprises multiple networks of inlets, pipes, and basins that flow to the Sacramento River or to terminal (retention) basins. The storm drainage system includes many miles of piping flowing into the drainages within the City or directly to river outfalls. The City's system has been designed to accommodate the industrial uses that were anticipated to be built in the business park. The proposed project would not contribute stormwater flows beyond the designed capacity. Impacts in this regard would be less than significant.

The City of Rio Vista is served by Pacific Gas & Electric (PG&E) company for energy and natural gas needed. PG&E is the responsible agency to develop and conduct electricity-related programs for the region and would serve the proposed project through these resources. The delivery, metering, billing, operation and maintenance of wires and poles remains the responsibility of PG&E within the City. Refer to the Energy Section above for additional information. Impact in this regard would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

As noted in a) above, the proposed project would use water supplied by the City from seven wells that pumped a total of approximately 2,117-acre feet (City of Rio Vista, 2018). The proposed project is estimated to require approximately 7,600 gallons per week or a total of 364,800 gallons per year. This would equate to approximately 1.1 af/y of water, or approximately 0.005% of water pumped in 2018. Therefore, considering the availability of existing water sources and the incrementally small increase in consumption, impacts in this regard would be less than significant. The proposed project would not affect the City's ability to provide water in dry or multiple dry years. The City can accommodate future development with existing ground water or using some of the 1,600 sf/year of water that could be diverted from the Sacramento River. In addition, as noted in the UWMP the Sub-basin does recover quickly in "wet" years and historical trends indicate that water levels in the Sub-basin are not in decline. Thus, the City would have adequate water to supply the proposed project and impacts would be less than significant.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would be constructed on land that has already been designated for industrial development in the RVGP and zoning ordinance. The City has indicated that the infrastructure necessary to serve the proposed project is available and sufficient, and that the proposed project would connect to the City's existing sewer systems. Thus, impacts in this regard would be less than significant and mitigation is not required.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The proposed project would result in the generation of solid waste defined in PRC §40191. The proposed project would generate garbage, trash, refuse, paper, and rubbish during operations. The proposed project would be serviced by Mt. Diablo Resource Recover (MDRR). Solid waste would be transported by MDRR to the Keller Canyon Landfill (KCLF) near Pittsburg. The KCLF is currently permitted to receive 3,500

tons per day (tpd) but is proposing to increase capacity to 4,900 tpd. The landfill has a permitted capacity of 75,018,280 cubic yard, and remaining capacity of 63,408,410 cubic yards. Both MDRR and KCLF have adequate capacity to serve the proposed project. The proposed project would recycle all green waste through MDRR. Green waste stored on-site would be in a green waste bin or in compostable bags if bags are used. The green waste would be collected by MDRR and transported to Contra Costa Waste Service to be sorted before being transported to the Recology Recycling and compost facility in Vacaville.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Implementation of the proposed project would result in the generation of solid waste on the site, which would increase the demand for solid waste disposal. During construction these materials, which are not anticipated to contain hazardous materials, would be collected and transported away from the site to an appropriate disposal facility.

As a cannabis-related business, the proposed project would comply with all applicable local, State and federal regulations regarding the appropriate disposal of cannabis-related waste products. Cannabis waste is considered a type of organic waste. There are three State licensing agencies that provide regulations for cannabis waste. These agencies include: Bureau of Cannabis Control, CalCannabis Cultivation Licensing, and Manufactured Cannabis Safety Branch. The proposed project would dispose of all cannabis related waste based on the regulations of the listed agencies as well as the requirements MDRR and the Recology Recycling facility.

Cumulative Impacts

Current water supply exceeds current yearly water demand within the City and projected water demand to through the year 2035 would be less than the projected supply. Based on existing and projected supplies, the City's total reasonable water volume is anticipated to be greater than projected City demand. This demand accounts for other past, present, and reasonably foreseeable projects that would use the same water supplies as the proposed project. While the population in the City is anticipated to continue to increase, population growth is not anticipated to substantially increase. Therefore, the City anticipates water supply will continue to keep pace with growth. In addition, the City maintains water efficiency measures that reduced per-capita water usage and more stringent water restrictions could be imposed on all city areas should need arise. Because there is adequate water supply and treatment capacity to serve projected demand under present per capita demand rates, the proposed project would not require new water supply contracts to be secured or new entitlements. Lastly, the proposed project would include all required water conservation measures as would be expected of all future projects prior to approval within the City. This would help ensure that cumulative impacts associated with water supply are less than significant.

Wastewater

Based on information in City documents and provide by the City, the estimated net increased wastewater generation rate from the proposed project and other anticipated development within the City and airport reuse and redevelopment area, adequate waterwater disposal capacity exists. The proposed proecjt and other projects that would be served by the Northwest WWTP would not exceed capacity of the plant or

lines serving the plant and flows would not be in excess of dry weather design flow capacity or wet weather flow capacity. Therefore, impacts would be less than significant.

Solid Waste

The proposed project in conjunction with past, present and likely foreseeable future projects in the vicinity would use the (KCLF). The landfill has substantial capacity and is expected to serve projected demand through the lifecycle of the landfill. In addition, all other projects considered on a cumulative basis also would be required to undergo site specific environmental and CEQA review. In addition, through the planning process, all other projects would be required to comply with waste reduction strategies both for construction and during operation of the proposed project. It is anticipated that impacts would be reduced to less than significant and would be less than cumulatively considerable.

4.20 Wildfire

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?			X	
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?			X	

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

As discussed in the Transportation Section, impacts a) and d) above, the proposed project would not impair an adopted emergency response plan or evacuation plan. The proposed project would occur within the interior of the business park and as part of the planned redevelopment within the former Rio Vista Municipal Airport.

The City’s maintains the Comprehensive Emergency Management Plan (CEMP) which provides direction for responding to disastrous occurrences in Rio Vista. The plan meets the requirements of Solano County’s policies on Emergency Response and Planning, the Standardized Emergency Management System (SEMS) Operations Area Response, defines the primary and support roles of City agencies and departments in

after-incident damage assessment and reporting requirements. The CEMP addresses interagency coordination and provides for the operation of police, fire and health services, as well as transportation alternatives in the event of a multi-hazard emergency. City evacuation procedures are described and are submitted to the State Office of Emergency Services (OES) for approval. The City will implement this plan in the event of a hazardous seismic or geologic occurrence.

In the event a large volume of emergency services are needed within the City or the City is required to be evacuated Highway 12 and Route 84 are the major thoroughfares that would be used to move vehicles and people. Secondly, Airport Road may be used to facilitate vehicle movement to the north and out of or into the City. The proposed project is close to Airport Road but project construction and operation would not impede use of the roadway during normal operations or in the case of evacuation. Impacts in this regard would be less than significant and mitigation is not required.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

As discussed in the Hazards and Hazardous Materials section g), above the Calfire Draft Fire Hazard Severity Zones in Local Responsibility Areas shows the project within an unzoned LRA area. The project site and surrounding area is comprised of industrial development, previously disturbed areas as a part of the former airport operations, and areas with bare soil as well as low growing upland and ruderal vegetation. The proposed project is not on or surrounded by any areas with steep slopes. Intermittent afternoon wind from the delta breeze would occur, but would not typically be significant enough to substantially exacerbate a fire. Because there is no wildfire risk, it would not increase the spread of wildfire. Therefore, because the proposed project is not subject to wildfire and the listed factors would not contribute to or exacerbate the risk, impacts would be less than significant. No mitigation is required.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The proposed project would be located within the planned redevelopment and reuse area of the former Rio Vista Municipal Airport. The proposed project would tie into existing planned infrastructure and would be located adjacent to planned interior roadways. As discussed above, the proposed project is not located in an area prone to wildfire and no project elements or development within the business park itself would exacerbate fire risk. Impacts would be less than significant, and no mitigation is required.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed project is not in an area prone to wildfire. The project site and project area is planned for reuse as part of the redevelopment efforts of the former Rio Vista Municipal Airport. Because the proposed project and surrounding area are planned to be developed, the potential for a wildfire to expose people or structures to aftereffects including flooding, or landslides, slope instability, or drainage changes would not occur. Impacts would be less than significant, and no mitigation is required.

Cumulative Impacts

The proposed project in conjunction with past, present and reasonably foreseeable projects would not make a cumulative contribution to any impacts associated with wildfire. The proposed project and all other projects planned within the City would be subject to plan review and approval which would ensure there are no conflicts with emergency and evacuation planning efforts. In addition, because the City is not in an area prone to wildfires, is relatively flat, potential wildfire impacts are remote and secondary effects such as downstream flooding, landslides, or drainage changes are similarly remote. Therefore, cumulative impacts would be less than significant.

4.21 Mandatory Findings of Significance

ENVIRONMENTAL IMPACTS Issues	Potentially Significant Issues	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Does the project:				
a) Have the potential to substantially 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, substantially 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		

a) *Have the potential to substantially 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, substantially 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?*

As evaluated in this IS/MND, the proposed project would not substantially 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 an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory. Mitigation measures have been included to lessen the significance of potential impacts. Similar mitigation measures would be anticipated to be included to other projects in the surrounding area, which would share the general type of anticipated cultural, paleontological, and biological resources. Consequently, the incremental effects of the proposed project, after mitigation, would not contribute to an adverse cumulative impact on these resources. Therefore, the proposed project would have a less-than-significant impact with mitigation incorporated.

- 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)?*

As described in the impact analyses in Sections 3.4.1 through 3.4.20 of this IS/MND, any potentially significant impacts of the proposed project would be reduced to a less-than significant level following incorporation of mitigation measures. All planned projects in the vicinity of the proposed project would be subject to review in separate environmental documents and required to conform to the RVGP, Zoning Ordinance, and required to mitigate for project-specific impacts, and provide appropriate engineering to ensure the development meets applicable federal, State and local regulations and codes. As currently designed, and with compliance of the recommended mitigation measures, the proposed project would not contribute to a cumulative impact. Thus, the cumulative impacts of past, present, and reasonably foreseeable future projects would be less than cumulatively considerable.

- c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

All the project's impacts, both direct and indirect, that are attributable to the proposed project were identified and mitigated to a less-than-significant level. All planned projects in the vicinity of the proposed project would be subject to review in separate environmental documents and required to conform to State regulations, the RVGP, Zoning Ordinance, and Municipal Codes to mitigate for project-specific impacts. The proposed project would have the appropriate engineering to ensure the development meets applicable federal, State and local regulations and codes. Thus, the cumulative impacts of past, present, and reasonably foreseeable future projects would be less than cumulatively considerable. Therefore, the proposed project would not either directly or indirectly cause substantial adverse effects on human beings because all potentially adverse direct impacts of the proposed project are identified as having no impact, less-than-significant impact, or less than significant impact with mitigation incorporated.

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Appendix A
Air Quality Data

Snowtill- Rio Vista - Solano-San Francisco County, Annual

Snowtill- Rio Vista
Solano-San Francisco County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	30.00	1000sqft	1.00	30,000.00	0
Parking Lot	14.47	1000sqft	0.33	14,470.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	56
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	171	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - CO2 intensity factor updated per PG&E 2019 CRSR Report
- Land Use - Parking lot includes paved areas for fire access
- Construction Phase - Anticipated construction schedule
- Demolition - Demolition includes 7,200 sf runway with depth of approximately 14 inches.
- Vehicle Trips - Estimated trips generated based on 13 employees and 10 vendor/delivery trucks
- Energy Use - Estimated energy use based on applicant information
- Water And Wastewater - Estimated water use per applicant information
- Construction Off-road Equipment Mitigation - basic control measures

Waste Mitigation -

Grading - Based on the Geo Report they recommend taking out the top 3 inches of the entire 1.26 acre site. Therefore, approx. 510 cy would be exported and approx. 830 cy would be imported to backfill the damage removal.
 Solid Waste - Estimated 500 lbs per day for 30k facility

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	60.00
tblEnergyUse	T24E	0.32	133.33
tblGrading	MaterialExported	0.00	510.00
tblGrading	MaterialImported	0.00	830.00
tblLandUse	LotAcreage	0.69	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblSolidWaste	SolidWasteGenerationRate	28.20	91.25
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	2.07
tblVehicleTrips	SU_TR	1.68	2.07
tblVehicleTrips	WD_TR	1.68	2.07
tblWater	IndoorWaterUseRate	6,937,500.00	364,800.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Year	tons/yr										MT/yr					
2021	0.3866	1.7974	1.6301	3.1100e-003	0.0468	0.0862	0.1329	0.0156	0.0828	0.0984	0.0000	263.3592	263.3592	0.0431	0.0000	264.4377
Maximum	0.3866	1.7974	1.6301	3.1100e-003	0.0468	0.0862	0.1329	0.0156	0.0828	0.0984	0.0000	263.3592	263.3592	0.0431	0.0000	264.4377

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.3866	1.7974	1.6301	3.1100e-003	0.0327	0.0862	0.1189	0.0102	0.0828	0.0930	0.0000	263.3590	263.3590	0.0431	0.0000	264.4374
Maximum	0.3866	1.7974	1.6301	3.1100e-003	0.0327	0.0862	0.1189	0.0102	0.0828	0.0930	0.0000	263.3590	263.3590	0.0431	0.0000	264.4374

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	30.01	0.00	10.55	34.93	0.00	5.55	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-15-2021	4-14-2021	0.5675	0.5675
2	4-15-2021	7-14-2021	0.5294	0.5294
3	7-15-2021	9-30-2021	0.4538	0.4538
		Highest	0.5675	0.5675

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Energy	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	323.6669	323.6669	0.0541	0.0113	328.3748
Mobile	0.0195	0.1172	0.2228	9.1000e-004	0.0727	7.7000e-004	0.0734	0.0195	7.2000e-004	0.0202	0.0000	83.5074	83.5074	3.4100e-003	0.0000	83.5927
Waste						0.0000	0.0000		0.0000	0.0000	18.5229	0.0000	18.5229	1.0947	0.0000	45.8898
Water						0.0000	0.0000		0.0000	0.0000	0.1157	0.1531	0.2688	0.0119	2.9000e-004	0.6519
Total	0.1541	0.1223	0.2275	9.4000e-004	0.0727	1.1600e-003	0.0738	0.0195	1.1100e-003	0.0206	18.6387	407.3282	425.9668	1.1641	0.0116	458.5100

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Energy	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	323.6669	323.6669	0.0541	0.0113	328.3748
Mobile	0.0195	0.1172	0.2228	9.1000e-004	0.0727	7.7000e-004	0.0734	0.0195	7.2000e-004	0.0202	0.0000	83.5074	83.5074	3.4100e-003	0.0000	83.5927
Waste						0.0000	0.0000		0.0000	0.0000	9.2615	0.0000	9.2615	0.5473	0.0000	22.9449
Water						0.0000	0.0000		0.0000	0.0000	0.1157	0.1531	0.2688	0.0119	2.9000e-004	0.6519
Total	0.1541	0.1223	0.2275	9.4000e-004	0.0727	1.1600e-003	0.0738	0.0195	1.1100e-003	0.0206	9.3772	407.3282	416.7054	0.6167	0.0116	435.5652

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.69	0.00	2.17	47.02	0.00	5.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/15/2021	2/11/2021	5	20	
2	Site Preparation	Site Preparation	2/12/2021	2/15/2021	5	2	
3	Grading	Grading	2/16/2021	2/19/2021	5	4	
4	Building Construction	Building Construction	3/6/2021	12/10/2021	5	200	
5	Architectural Coating	Architectural Coating	10/1/2021	12/23/2021	5	60	
6	Paving	Paving	2/20/2021	3/5/2021	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 868

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40

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

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	62.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	168.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 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					
Fugitive Dust					6.7000e-003	0.0000	6.7000e-003	1.0100e-003	0.0000	1.0100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0199	0.1970	0.1449	2.4000e-004		0.0104	0.0104		9.7100e-003	9.7100e-003	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060
Total	0.0199	0.1970	0.1449	2.4000e-004	6.7000e-003	0.0104	0.0171	1.0100e-003	9.7100e-003	0.0107	0.0000	21.0713	21.0713	5.3900e-003	0.0000	21.2060

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.4000e-004	7.8900e-003	1.4200e-003	2.0000e-005	5.3000e-004	3.0000e-005	5.5000e-004	1.5000e-004	2.0000e-005	1.7000e-004	0.0000	2.3490	2.3490	9.0000e-005	0.0000	2.3512
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4000e-004	3.0000e-004	2.9800e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0400e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.9059	0.9059	2.0000e-005	0.0000	0.9064
Total	6.8000e-004	8.1900e-003	4.4000e-003	3.0000e-005	1.5600e-003	4.0000e-005	1.5900e-003	4.2000e-004	3.0000e-005	4.5000e-004	0.0000	3.2548	3.2548	1.1000e-004	0.0000	3.2576

Mitigated Construction On-Site

Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	5.8000e-003	7.7000e-004	6.5700e-003	2.9500e-003	7.0000e-004	3.6500e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0557	0.0557	0.0000	0.0000	0.0558
Total	3.0000e-005	2.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0557	0.0557	0.0000	0.0000	0.0558

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4800e-003	0.0000	2.4800e-003	1.2600e-003	0.0000	1.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	1.5600e-003	0.0174	7.5600e-003	2.0000e-005	2.4800e-003	7.7000e-004	3.2500e-003	1.2600e-003	7.0000e-004	1.9600e-003	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0557	0.0557	0.0000	0.0000	0.0558
Total	3.0000e-005	2.0000e-005	1.8000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0557	0.0557	0.0000	0.0000	0.0558

3.4 Grading - 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					
Fugitive Dust					9.9000e-003	0.0000	9.9000e-003	5.0600e-003	0.0000	5.0600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	2.5800e-003	0.0287	0.0127	3.0000e-005	9.9000e-003	1.2800e-003	0.0112	5.0600e-003	1.1700e-003	6.2300e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968

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
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Worker	5.0000e-005	4.0000e-005	3.7000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1115	0.1115	0.0000	0.0000	0.1116
Total	7.0000e-004	0.0214	4.2200e-003	7.0000e-005	1.4800e-003	7.0000e-005	1.5600e-003	4.1000e-004	7.0000e-005	4.7000e-004	0.0000	6.4764	6.4764	2.4000e-004	0.0000	6.4826

3.5 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	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5476	181.5476	0.0324	0.0000	182.3579
Total	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5476	181.5476	0.0324	0.0000	182.3579

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0718	0.0197	2.0000e-004	4.6100e-003	1.8000e-004	4.7900e-003	1.3300e-003	1.7000e-004	1.5000e-003	0.0000	18.8940	18.8940	9.6000e-004	0.0000	18.9181
Worker	6.3900e-003	4.3300e-003	0.0435	1.5000e-004	0.0151	1.0000e-004	0.0152	4.0100e-003	9.0000e-005	4.1100e-003	0.0000	13.2394	13.2394	3.1000e-004	0.0000	13.2471
Total	8.9800e-003	0.0762	0.0632	3.5000e-004	0.0197	2.8000e-004	0.0200	5.3400e-003	2.6000e-004	5.6100e-003	0.0000	32.1334	32.1334	1.2700e-003	0.0000	32.1651

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	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5474	181.5474	0.0324	0.0000	182.3577
Total	0.1813	1.3636	1.2899	2.2000e-003		0.0684	0.0684		0.0661	0.0661	0.0000	181.5474	181.5474	0.0324	0.0000	182.3577

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0718	0.0197	2.0000e-004	4.4200e-003	1.8000e-004	4.6000e-003	1.2900e-003	1.7000e-004	1.4600e-003	0.0000	18.8940	18.8940	9.6000e-004	0.0000	18.9181
Worker	6.3900e-003	4.3300e-003	0.0435	1.5000e-004	0.0143	1.0000e-004	0.0144	3.8200e-003	9.0000e-005	3.9100e-003	0.0000	13.2394	13.2394	3.1000e-004	0.0000	13.2471
Total	8.9800e-003	0.0762	0.0632	3.5000e-004	0.0187	2.8000e-004	0.0190	5.1100e-003	2.6000e-004	5.3700e-003	0.0000	32.1334	32.1334	1.2700e-003	0.0000	32.1651

3.6 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
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Category	tons/yr								MT/yr							
Archit. Coating	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	
Off-Road	6.5700e-003	0.0458	0.0545	9.0000e-005		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	7.6598	7.6598	5.3000e-004	0.0000	7.6729
Total	0.1660	0.0458	0.0545	9.0000e-005		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	7.6598	7.6598	5.3000e-004	0.0000	7.6729

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.7000e-004	2.7500e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8362	0.8362	2.0000e-005	0.0000	0.8367
Total	4.0000e-004	2.7000e-004	2.7500e-003	1.0000e-005	9.5000e-004	1.0000e-005	9.6000e-004	2.5000e-004	1.0000e-005	2.6000e-004	0.0000	0.8362	0.8362	2.0000e-005	0.0000	0.8367

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	0.1595					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.5700e-003	0.0458	0.0545	9.0000e-005		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	7.6598	7.6598	5.3000e-004	0.0000	7.6729

Total	0.1660	0.0458	0.0545	9.0000e-005		2.8200e-003	2.8200e-003		2.8200e-003	2.8200e-003	0.0000	7.6598	7.6598	5.3000e-004	0.0000	7.6729
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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-004	2.7000e-004	2.7500e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8362	0.8362	2.0000e-005	0.0000	0.8367
Total	4.0000e-004	2.7000e-004	2.7500e-003	1.0000e-005	9.0000e-004	1.0000e-005	9.1000e-004	2.4000e-004	1.0000e-005	2.5000e-004	0.0000	0.8362	0.8362	2.0000e-005	0.0000	0.8367

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3000e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.5000e-004	1.4900e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4529	0.4529	1.0000e-005	0.0000	0.4532
Total	2.2000e-004	1.5000e-004	1.4900e-003	1.0000e-005	5.2000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4529	0.4529	1.0000e-005	0.0000	0.4532

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	3.8700e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291
Paving	4.3000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	4.3000e-003	0.0387	0.0443	7.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	5.8825	5.8825	1.8600e-003	0.0000	5.9291

Mitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.5000e-004	1.4900e-003	1.0000e-005	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4529	0.4529	1.0000e-005	0.0000	0.4532
Total	2.2000e-004	1.5000e-004	1.4900e-003	1.0000e-005	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4529	0.4529	1.0000e-005	0.0000	0.4532

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0195	0.1172	0.2228	9.1000e-004	0.0727	7.7000e-004	0.0734	0.0195	7.2000e-004	0.0202	0.0000	83.5074	83.5074	3.4100e-003	0.0000	83.5927
Unmitigated	0.0195	0.1172	0.2228	9.1000e-004	0.0727	7.7000e-004	0.0734	0.0195	7.2000e-004	0.0202	0.0000	83.5074	83.5074	3.4100e-003	0.0000	83.5927

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	62.10	62.10	62.10	194,353	194,353
Total	62.10	62.10	62.10	194,353	194,353

4.3 Trip Type Information

Miles	Trip %	Trip Purpose %
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Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992
Unrefrigerated Warehouse-No Rail	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	318.1117	318.1117	0.0540	0.0112	322.7866
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	318.1117	318.1117	0.0540	0.0112	322.7866
NaturalGas Mitigated	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882
NaturalGas Unmitigated	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882

5.2 Energy by Land Use - NaturalGas

Unmitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	104100	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882
Total		5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	104100	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882
Total		5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	5064.5	0.3928	7.0000e-005	1.0000e-005	0.3986

Unrefrigerated Warehouse-No 06	4.0962e+006	317.7189	0.0539	0.0112	322.3880
Total		318.1117	0.0540	0.0112	322.7866

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	5064.5	0.3928	7.0000e-005	1.0000e-005	0.3986
Unrefrigerated Warehouse-No 06	4.0962e+006	317.7189	0.0539	0.0112	322.3880
Total		318.1117	0.0540	0.0112	322.7866

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Unmitigated	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Total	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0159					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1181					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004
Total	0.1341	0.0000	4.1000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	7.9000e-004	7.9000e-004	0.0000	0.0000	8.5000e-004

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.2688	0.0119	2.9000e-004	0.6519
Unmitigated	0.2688	0.0119	2.9000e-004	0.6519

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0.3648 / 0	0.2688	0.0119	2.9000e-004	0.6519
Total		0.2688	0.0119	2.9000e-004	0.6519

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
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Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	0.3648 / 0	0.2688	0.0119	2.9000e-004	0.6519
Total		0.2688	0.0119	2.9000e-004	0.6519

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.2615	0.5473	0.0000	22.9449
Unmitigated	18.5229	1.0947	0.0000	45.8898

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			

Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	91.25	18.5229	1.0947	0.0000	45.8898
Total		18.5229	1.0947	0.0000	45.8898

Mitigated

Land Use	Waste Disposed tons	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No	45.625	9.2615	0.5473	0.0000	22.9449
Total		9.2615	0.5473	0.0000	22.9449

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Snowtill- Rio Vista - Solano-San Francisco County, Summer

Snowtill- Rio Vista
Solano-San Francisco County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	30.00	1000sqft	1.00	30,000.00	0
Parking Lot	14.47	1000sqft	0.33	14,470.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	56
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	171	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - CO2 intensity factor updated per PG&E 2019 CRSR Report
- Land Use - Parking lot includes paved areas for fire access
- Construction Phase - Anticipated construction schedule
- Demolition - Demolition includes 7,200 sf runway with depth of approximately 14 inches.
- Vehicle Trips - Estimated trips generated based on 13 employees and 10 vendor/delivery trucks
- Energy Use - Estimated energy use based on applicant information
- Water And Wastewater - Estimated water use per applicant information
- Construction Off-road Equipment Mitigation - basic control measures

Waste Mitigation -

Grading - Based on the Geo Report they recommend taking out the top 3 inches of the entire 1.26 acre site. Therefore, approx. 510 cy would be exported and approx. 830 cy would be imported to backfill the same removal.
 Solid Waste - Estimated 500 lbs per day for 30k facility

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	60.00
tblEnergyUse	T24E	0.32	133.33
tblGrading	MaterialExported	0.00	510.00
tblGrading	MaterialImported	0.00	830.00
tblLandUse	LotAcreage	0.69	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblSolidWaste	SolidWasteGenerationRate	28.20	91.25
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	2.07
tblVehicleTrips	SU_TR	1.68	2.07
tblVehicleTrips	WD_TR	1.68	2.07
tblWater	IndoorWaterUseRate	6,937,500.00	364,800.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Year	lb/day										lb/day					
2021	7.4551	24.7869	15.4840	0.0484	5.8653	1.0442	6.6311	2.9711	0.9746	3.6757	0.0000	4,973.0328	4,973.0328	0.6060	0.0000	4,987.3286
Maximum	7.4551	24.7869	15.4840	0.0484	5.8653	1.0442	6.6311	2.9711	0.9746	3.6757	0.0000	4,973.0328	4,973.0328	0.6060	0.0000	4,987.3286

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	7.4551	24.7869	15.4840	0.0484	2.8818	1.0442	3.5549	1.2924	0.9746	1.9838	0.0000	4,973.0328	4,973.0328	0.6060	0.0000	4,987.3286
Maximum	7.4551	24.7869	15.4840	0.0484	2.8818	1.0442	3.5549	1.2924	0.9746	1.9838	0.0000	4,973.0328	4,973.0328	0.6060	0.0000	4,987.3286

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.87	0.00	46.39	56.50	0.00	46.03	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

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

Area	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Energy	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Mobile	0.1232	0.6253	1.3014	5.3000e-003	0.4127	4.2200e-003	0.4170	0.1103	3.9600e-003	0.1143		536.7603	536.7603	0.0208		537.2790
Total	0.8612	0.6533	1.3295	5.4700e-003	0.4127	6.3700e-003	0.4191	0.1103	6.1100e-003	0.1164		570.3236	570.3236	0.0214	6.2000e-004	571.0423

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Energy	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Mobile	0.1232	0.6253	1.3014	5.3000e-003	0.4127	4.2200e-003	0.4170	0.1103	3.9600e-003	0.1143		536.7603	536.7603	0.0208		537.2790
Total	0.8612	0.6533	1.3295	5.4700e-003	0.4127	6.3700e-003	0.4191	0.1103	6.1100e-003	0.1164		570.3236	570.3236	0.0214	6.2000e-004	571.0423

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/15/2021	2/11/2021	5	20	
2	Site Preparation	Site Preparation	2/12/2021	2/15/2021	5	2	
3	Grading	Grading	2/16/2021	2/19/2021	5	4	

4	Building Construction	Building Construction	3/6/2021	12/10/2021	5	200
5	Architectural Coating	Architectural Coating	10/1/2021	12/23/2021	5	60
6	Paving	Paving	2/20/2021	3/5/2021	5	10

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 868

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	62.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	168.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6698	0.0000	0.6698	0.1014	0.0000	0.1014			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.717	2,322.7171	0.5940		2,337.5658
												1				

Total	1.9930	19.6966	14.4925	0.0241	0.6698	1.0409	1.7107	0.1014	0.9715	1.0729		2,322.717	2,322.7171	0.5940		2,337.5658
												1				

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0236	0.7706	0.1355	2.4800e-003	0.0543	2.5700e-003	0.0569	0.0149	2.4600e-003	0.0174		261.3906	261.3906	9.5100e-003		261.6283
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0264	0.3301	1.0800e-003	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		108.1383	108.1383	2.5100e-003		108.2010
Total	0.0708	0.7970	0.4656	3.5600e-003	0.1611	3.2700e-003	0.1644	0.0432	3.1000e-003	0.0463		369.5289	369.5289	0.0120		369.8293

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2863	0.0000	0.2863	0.0434	0.0000	0.0434			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.717	2,322.7171	0.5940		2,337.5658
												1				
Total	1.9930	19.6966	14.4925	0.0241	0.2863	1.0409	1.3272	0.0434	0.9715	1.0148	0.0000	2,322.717	2,322.7171	0.5940		2,337.5658
												1				

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0236	0.7706	0.1355	2.4800e-003	0.0519	2.5700e-003	0.0544	0.0143	2.4600e-003	0.0168		261.3906	261.3906	9.5100e-003		261.6283
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0264	0.3301	1.0800e-003	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		108.1383	108.1383	2.5100e-003		108.2010
Total	0.0708	0.7970	0.4656	3.5600e-003	0.1531	3.2700e-003	0.1563	0.0413	3.1000e-003	0.0444		369.5289	369.5289	0.0120		369.8293

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578		1,666.5174	1,666.5174	0.5390		1,679.9920

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0290	0.0162	0.2031	6.7000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		66.5466	66.5466	1.5400e-003		66.5852
Total	0.0290	0.0162	0.2031	6.7000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		66.5466	66.5466	1.5400e-003		66.5852

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4793	0.0000	2.4793	1.2627	0.0000	1.2627			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.4793	0.7654	3.2447	1.2627	0.7041	1.9669	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0162	0.2031	6.7000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		66.5466	66.5466	1.5400e-003		66.5852

Total	0.0290	0.0162	0.2031	6.7000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		66.5466	66.5466	1.5400e-003		66.5852
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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9521	0.0000	4.9521	2.5314	0.0000	2.5314			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.9521	0.6379	5.5901	2.5314	0.5869	3.1182		1,365.0648	1,365.0648	0.4415		1,376.1020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3200	10.4399	1.8362	0.0336	0.7358	0.0348	0.7706	0.2018	0.0333	0.2351		3,541.4213	3,541.4213	0.1288		3,544.6414
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0162	0.2031	6.7000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		66.5466	66.5466	1.5400e-003		66.5852
Total	0.3490	10.4562	2.0394	0.0343	0.8015	0.0353	0.8367	0.2192	0.0337	0.2529		3,607.9680	3,607.9680	0.1303		3,611.2266

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1170	0.0000	2.1170	1.0822	0.0000	1.0822			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.1170	0.6379	2.7550	1.0822	0.5869	1.6690	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3200	10.4399	1.8362	0.0336	0.7024	0.0348	0.7373	0.1936	0.0333	0.2269		3,541.4213	3,541.4213	0.1288		3,544.6414
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0290	0.0162	0.2031	6.7000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		66.5466	66.5466	1.5400e-003		66.5852
Total	0.3490	10.4562	2.0394	0.0343	0.7647	0.0353	0.8000	0.2102	0.0337	0.2439		3,607.9680	3,607.9680	0.1303		3,611.2266

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0253	0.7092	0.1831	2.0200e-003	0.0474	1.7400e-003	0.0492	0.0137	1.6600e-003	0.0153		211.1054	211.1054	0.0101		211.3580
Worker	0.0689	0.0386	0.4824	1.5900e-003	0.1561	1.0200e-003	0.1571	0.0414	9.4000e-004	0.0423		158.0482	158.0482	3.6700e-003		158.1399
Total	0.0942	0.7478	0.6655	3.6100e-003	0.2035	2.7600e-003	0.2063	0.0551	2.6000e-003	0.0577		369.1536	369.1536	0.0138		369.4979

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0253	0.7092	0.1831	2.0200e-003	0.0454	1.7400e-003	0.0472	0.0132	1.6600e-003	0.0148		211.1054	211.1054	0.0101			211.3580
Worker	0.0689	0.0386	0.4824	1.5900e-003	0.1479	1.0200e-003	0.1490	0.0394	9.4000e-004	0.0403		158.0482	158.0482	3.6700e-003			158.1399
Total	0.0942	0.7478	0.6655	3.6100e-003	0.1934	2.7600e-003	0.1961	0.0526	2.6000e-003	0.0552		369.1536	369.1536	0.0138			369.4979

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	5.3150					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193			281.9309
Total	5.5339	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193			281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0145	8.1200e-003	0.1016	3.3000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		33.2733	33.2733	7.7000e-004		33.2926
Total	0.0145	8.1200e-003	0.1016	3.3000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		33.2733	33.2733	7.7000e-004		33.2926

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	5.5339	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0145	8.1200e-003	0.1016	3.3000e-004	0.0312	2.2000e-004	0.0314	8.3000e-003	2.0000e-004	8.4900e-003		33.2733	33.2733	7.7000e-004		33.2926
Total	0.0145	8.1200e-003	0.1016	3.3000e-004	0.0312	2.2000e-004	0.0314	8.3000e-003	2.0000e-004	8.4900e-003		33.2733	33.2733	7.7000e-004		33.2926

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8603	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0264	0.3301	1.0800e-003	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		108.1383	108.1383	2.5100e-003		108.2010
Total	0.0472	0.0264	0.3301	1.0800e-003	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		108.1383	108.1383	2.5100e-003		108.2010

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8603	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0472	0.0264	0.3301	1.0800e-003	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		108.1383	108.1383	2.5100e-003		108.2010
Total	0.0472	0.0264	0.3301	1.0800e-003	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		108.1383	108.1383	2.5100e-003		108.2010

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1232	0.6253	1.3014	5.3000e-003	0.4127	4.2200e-003	0.4170	0.1103	3.9600e-003	0.1143		536.7603	536.7603	0.0208		537.2790
Unmitigated	0.1232	0.6253	1.3014	5.3000e-003	0.4127	4.2200e-003	0.4170	0.1103	3.9600e-003	0.1143		536.7603	536.7603	0.0208		537.2790

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	62.10	62.10	62.10	194,353	194,353
Total	62.10	62.10	62.10	194,353	194,353

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992
Unrefrigerated Warehouse-No Rail	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
NaturalGas Unmitigated	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	285.205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	0.285205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Unmitigated	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104

6.2 Area by SubCategory

Unmitigated

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

Architectural Coating	0.0874					0.0000	0.0000			0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6471					0.0000	0.0000			0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005			2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104
Total	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005			2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104
Total	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Snowtill- Rio Vista - Solano-San Francisco County, Winter

Snowtill- Rio Vista
Solano-San Francisco County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	30.00	1000sqft	1.00	30,000.00	0
Parking Lot	14.47	1000sqft	0.33	14,470.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	56
Climate Zone	4			Operational Year	2022
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	171	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

- Project Characteristics - CO2 intensity factor updated per PG&E 2019 CRSR Report
- Land Use - Parking lot includes paved areas for fire access
- Construction Phase - Anticipated construction schedule
- Demolition - Demolition includes 7,200 sf runway with depth of approximately 14 inches.
- Vehicle Trips - Estimated trips generated based on 13 employees and 10 vendor/delivery trucks
- Energy Use - Estimated energy use based on applicant information
- Water And Wastewater - Estimated water use per applicant information
- Construction Off-road Equipment Mitigation - basic control measures

Waste Mitigation -

Grading - Based on the Geo Report they recommend taking out the top 3 inches of the entire 1.26 acre site. Therefore, approx. 510 cy would be exported and approx. 830 cy would be imported to backfill the same removal.
 Solid Waste - Estimated 500 lbs per day for 30k facility

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	6
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	10.00	60.00
tblEnergyUse	T24E	0.32	133.33
tblGrading	MaterialExported	0.00	510.00
tblGrading	MaterialImported	0.00	830.00
tblLandUse	LotAcreage	0.69	1.00
tblProjectCharacteristics	CO2IntensityFactor	641.35	171
tblSolidWaste	SolidWasteGenerationRate	28.20	91.25
tblVehicleTrips	DV_TP	5.00	0.00
tblVehicleTrips	PB_TP	3.00	0.00
tblVehicleTrips	PR_TP	92.00	100.00
tblVehicleTrips	ST_TR	1.68	2.07
tblVehicleTrips	SU_TR	1.68	2.07
tblVehicleTrips	WD_TR	1.68	2.07
tblWater	IndoorWaterUseRate	6,937,500.00	364,800.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
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Year	lb/day											lb/day				
2021	7.4580	25.0575	15.4767	0.0476	5.8653	1.0442	6.6311	2.9711	0.9746	3.6757	0.0000	4,887.4639	4,887.4639	0.6068	0.0000	4,902.0933
Maximum	7.4580	25.0575	15.4767	0.0476	5.8653	1.0442	6.6311	2.9711	0.9746	3.6757	0.0000	4,887.4639	4,887.4639	0.6068	0.0000	4,902.0933

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day											lb/day				
2021	7.4580	25.0575	15.4767	0.0476	2.8818	1.0442	3.5557	1.2924	0.9746	1.9838	0.0000	4,887.4639	4,887.4639	0.6068	0.0000	4,902.0933
Maximum	7.4580	25.0575	15.4767	0.0476	2.8818	1.0442	3.5557	1.2924	0.9746	1.9838	0.0000	4,887.4639	4,887.4639	0.6068	0.0000	4,902.0933

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	50.87	0.00	46.38	56.50	0.00	46.03	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

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

Area	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Energy	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Mobile	0.1047	0.6560	1.2936	4.9100e-003	0.4127	4.2700e-003	0.4170	0.1103	4.0000e-003	0.1143		497.5602	497.5602	0.0214		498.0949
Total	0.8427	0.6840	1.3217	5.0800e-003	0.4127	6.4200e-003	0.4192	0.1103	6.1500e-003	0.1165		531.1236	531.1236	0.0221	6.2000e-004	531.8583

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Energy	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Mobile	0.1047	0.6560	1.2936	4.9100e-003	0.4127	4.2700e-003	0.4170	0.1103	4.0000e-003	0.1143		497.5602	497.5602	0.0214		498.0949
Total	0.8427	0.6840	1.3217	5.0800e-003	0.4127	6.4200e-003	0.4192	0.1103	6.1500e-003	0.1165		531.1236	531.1236	0.0221	6.2000e-004	531.8583

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/15/2021	2/11/2021	5	20	
2	Site Preparation	Site Preparation	2/12/2021	2/15/2021	5	2	
3	Grading	Grading	2/16/2021	2/19/2021	5	4	

4	Building Construction	Building Construction	3/6/2021	12/10/2021	5	200
5	Architectural Coating	Architectural Coating	10/1/2021	12/23/2021	5	60
6	Paving	Paving	2/20/2021	3/5/2021	5	10

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.33

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 45,000; Non-Residential Outdoor: 15,000; Striped Parking Area: 868

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Architectural Coating	Air Compressors	1	6.00	78	0.48
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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	62.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	168.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.6698	0.0000	0.6698	0.1014	0.0000	0.1014			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715		2,322.717	2,322.7171	0.5940		2,337.5658
												1				

Total	1.9930	19.6966	14.4925	0.0241	0.6698	1.0409	1.7107	0.1014	0.9715	1.0729		2,322.7171	2,322.7171	0.5940		2,337.5658
												1				

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0245	0.7902	0.1512	2.4300e-003	0.0543	2.6300e-003	0.0569	0.0149	2.5200e-003	0.0174		255.5284	255.5284	0.0105		255.7909
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0333	0.3075	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.1518	98.1518	2.3100e-003		98.2095
Total	0.0723	0.8236	0.4587	3.4100e-003	0.1611	3.3300e-003	0.1644	0.0432	3.1600e-003	0.0464		353.6802	353.6802	0.0128		354.0005

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2863	0.0000	0.2863	0.0434	0.0000	0.0434			0.0000			0.0000
Off-Road	1.9930	19.6966	14.4925	0.0241		1.0409	1.0409		0.9715	0.9715	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
Total	1.9930	19.6966	14.4925	0.0241	0.2863	1.0409	1.3272	0.0434	0.9715	1.0148	0.0000	2,322.7171	2,322.7171	0.5940		2,337.5658
												1				

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0245	0.7902	0.1512	2.4300e-003	0.0519	2.6300e-003	0.0545	0.0143	2.5200e-003	0.0168		255.5284	255.5284	0.0105		255.7909
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0333	0.3075	9.8000e-004	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		98.1518	98.1518	2.3100e-003		98.2095
Total	0.0723	0.8236	0.4587	3.4100e-003	0.1531	3.3300e-003	0.1564	0.0413	3.1600e-003	0.0444		353.6802	353.6802	0.0128		354.0005

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	5.7996	0.7654	6.5650	2.9537	0.7041	3.6578		1,666.5174	1,666.5174	0.5390		1,679.9920

Unmitigated Construction Off-Site

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

Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0294	0.0205	0.1892	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		60.4011	60.4011	1.4200e-003		60.4366
Total	0.0294	0.0205	0.1892	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		60.4011	60.4011	1.4200e-003		60.4366

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4793	0.0000	2.4793	1.2627	0.0000	1.2627			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	1.5558	17.4203	7.5605	0.0172	2.4793	0.7654	3.2447	1.2627	0.7041	1.9669	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0205	0.1892	6.1000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		60.4011	60.4011	1.4200e-003		60.4366

Total	0.0294	0.0205	0.1892	6.1000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		60.4011	60.4011	1.4200e-003		60.4366
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3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9521	0.0000	4.9521	2.5314	0.0000	2.5314			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	4.9521	0.6379	5.5901	2.5314	0.5869	3.1182		1,365.0648	1,365.0648	0.4415		1,376.1020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3314	10.7063	2.0489	0.0329	0.7358	0.0356	0.7714	0.2018	0.0341	0.2359		3,461.9980	3,461.9980	0.1423		3,465.5546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0205	0.1892	6.1000e-004	0.0657	4.3000e-004	0.0662	0.0174	4.0000e-004	0.0178		60.4011	60.4011	1.4200e-003		60.4366
Total	0.3608	10.7268	2.2381	0.0335	0.8015	0.0361	0.8375	0.2192	0.0345	0.2537		3,522.3991	3,522.3991	0.1437		3,525.9912

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.1170	0.0000	2.1170	1.0822	0.0000	1.0822			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	1.2884	14.3307	6.3314	0.0141	2.1170	0.6379	2.7550	1.0822	0.5869	1.6690	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3314	10.7063	2.0489	0.0329	0.7024	0.0356	0.7381	0.1936	0.0341	0.2277		3,461.9980	3,461.9980	0.1423		3,465.5546
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0294	0.0205	0.1892	6.1000e-004	0.0623	4.3000e-004	0.0627	0.0166	4.0000e-004	0.0170		60.4011	60.4011	1.4200e-003		60.4366
Total	0.3608	10.7268	2.2381	0.0335	0.7647	0.0361	0.8008	0.2102	0.0345	0.2447		3,522.3991	3,522.3991	0.1437		3,525.9912

3.5 Building Construction - 2021

Unmitigated Construction On-Site

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

Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0270	0.7166	0.2158	1.9500e-003	0.0474	1.8100e-003	0.0493	0.0137	1.7300e-003	0.0154		204.3598	204.3598	0.0113		204.6419
Worker	0.0699	0.0487	0.4494	1.4400e-003	0.1561	1.0200e-003	0.1571	0.0414	9.4000e-004	0.0423		143.4526	143.4526	3.3800e-003		143.5370
Total	0.0969	0.7653	0.6652	3.3900e-003	0.2035	2.8300e-003	0.2064	0.0551	2.6700e-003	0.0577		347.8124	347.8124	0.0147		348.1789

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.0270	0.7166	0.2158	1.9500e-003	0.0454	1.8100e-003	0.0472	0.0132	1.7300e-003	0.0149		204.3598	204.3598	0.0113			204.6419
Worker	0.0699	0.0487	0.4494	1.4400e-003	0.1479	1.0200e-003	0.1490	0.0394	9.4000e-004	0.0403		143.4526	143.4526	3.3800e-003			143.5370
Total	0.0969	0.7653	0.6652	3.3900e-003	0.1934	2.8300e-003	0.1962	0.0526	2.6700e-003	0.0552		347.8124	347.8124	0.0147			348.1789

3.6 Architectural Coating - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Archit. Coating	5.3150					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193			281.9309
Total	5.5339	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193			281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0147	0.0103	0.0946	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.2005	30.2005	7.1000e-004		30.2183
Total	0.0147	0.0103	0.0946	3.0000e-004	0.0329	2.2000e-004	0.0331	8.7200e-003	2.0000e-004	8.9100e-003		30.2005	30.2005	7.1000e-004		30.2183

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	5.3150					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	5.5339	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0147	0.0103	0.0946	3.0000e-004	0.0312	2.2000e-004	0.0314	8.3000e-003	2.0000e-004	8.4900e-003		30.2005	30.2005	7.1000e-004		30.2183
Total	0.0147	0.0103	0.0946	3.0000e-004	0.0312	2.2000e-004	0.0314	8.3000e-003	2.0000e-004	8.4900e-003		30.2005	30.2005	7.1000e-004		30.2183

3.7 Paving - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8603	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830		1,296.8664	1,296.8664	0.4111		1,307.1442

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0333	0.3075	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.1518	98.1518	2.3100e-003		98.2095
Total	0.0478	0.0333	0.3075	9.8000e-004	0.1068	7.0000e-004	0.1075	0.0283	6.4000e-004	0.0290		98.1518	98.1518	2.3100e-003		98.2095

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7739	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442
Paving	0.0865					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8603	7.7422	8.8569	0.0135		0.4153	0.4153		0.3830	0.3830	0.0000	1,296.8664	1,296.8664	0.4111		1,307.1442

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0478	0.0333	0.3075	9.8000e-004	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		98.1518	98.1518	2.3100e-003		98.2095
Total	0.0478	0.0333	0.3075	9.8000e-004	0.1012	7.0000e-004	0.1019	0.0270	6.4000e-004	0.0276		98.1518	98.1518	2.3100e-003		98.2095

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.1047	0.6560	1.2936	4.9100e-003	0.4127	4.2700e-003	0.4170	0.1103	4.0000e-003	0.1143		497.5602	497.5602	0.0214		498.0949
Unmitigated	0.1047	0.6560	1.2936	4.9100e-003	0.4127	4.2700e-003	0.4170	0.1103	4.0000e-003	0.1143		497.5602	497.5602	0.0214		498.0949

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	62.10	62.10	62.10	194,353	194,353
Total	62.10	62.10	62.10	194,353	194,353

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992
Unrefrigerated Warehouse-No Rail	0.588536	0.035986	0.174552	0.110216	0.018118	0.005345	0.009428	0.044315	0.003262	0.002178	0.006461	0.000611	0.000992

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
NaturalGas Unmitigated	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

5.2 Energy by Land Use - NaturalGas Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Pail	285.205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

Mitigated

	Natural Gas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Fuel	0.285205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104
Unmitigated	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7300e-003	9.7300e-003	3.0000e-005		0.0104

6.2 Area by SubCategory

Unmitigated

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

Architectural Coating	0.0874					0.0000	0.0000			0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6471					0.0000	0.0000			0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005			2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104
Total	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005			2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0874					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.6471					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.2000e-004	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104
Total	0.7349	4.0000e-005	4.5500e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005			9.7300e-003	9.7300e-003	3.0000e-005	0.0104

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

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

Fire Pumps and Emergency Generators

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

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Appendix B
Biological Resources Memo

MEMORANDUM

To: JNL Capital LLC

From: Brad Stoneman, Project Manager, Kimley-Horn
Marcy Kamerath, Environmental Scientist, Kimley-Horn
Kimley-Horn and Associates, Inc.

Date: August 17, 2020

Subject: Snowtill Project – Biological Resources Technical Memorandum

1.0 PURPOSE

The purpose of this memorandum is to identify the biological resources and habitats associated with the proposed Snowtill Project (project), located in the City of Rio Vista, California. A review of biological resources was undertaken to analyze whether the proposed project would result in potential impacts to biological resources or habitats in order to support review of the project under the California Environmental Quality Act (CEQA).

2.0 PROPOSED PROJECT DESCRIPTION

The proposed project is in the City of Rio Vista in southeastern portion of Solano County, California. The project is located within the U.S. Geological Survey (USGS) Rio Vista Quadrangle. The project site is located at 40 Richard Brann Drive on a 1.48 acre lot on Assessor parcel number (0178-230-180) (Figure 1). The proposed project site is within the former City of Rio Vista Municipal Airport. A portion of the project site is occupied by an overgrown remnant runway that splits the site diagonally from the southwest to northeast. The runway occupies approximately 5,400 sf of the project site (Figure 2).

The proposed project occurs on previously disturbed but currently undeveloped and unoccupied land. There are no current on-site operations. The project site is on flat ground and has no significant landform features. The project site slopes slightly downward to the east falling approximately two to three feet over a distance of approximately 400 feet. The portion of the runway within this site is partially covered with dirt and vegetation. The balance of the site consists of bare soil and upland, ruderal vegetation including grasses and shrubs, (dominated by non-native annual grasses, and *Brassica* sp.). There are no trees or natural landforms such as rock outcroppings or hillsides on the project site. The project site does not contain any stream channels, waterways, standing water, or wetlands.

Surrounding uses include existing industrial uses to the east, vacant but disturbed land and industrial uses to the north, Industrial Court, disturbed land, industrial uses to the west, and previously

disturbed land and industrial uses to the south. The surrounding land uses are consistent with the sites former use as an airport and ongoing efforts to repurpose the area for business and industrial uses.

The proposed project includes the construction of two approximately 15,000 square foot (sf) buildings for indoor cannabis cultivation. The buildings would be constructed in two phases. Phase I would include one half of the overall 30,000 sf facility within the southwesterly portion of the project site. A 20-foot (') fire access lane would be installed on the southside of the structure and would provide emergency access to the northerly side. The 20' fire lane would continue around the building and link to the 20-space parking lot (with three Americans with Disability Act (ADA) compliant stalls on the northern boundary of the site. This design would provide emergency access to all sides of the project site. The proposed 15,000 sf building as part of Phase II would be located between the parking lot on the northwest and Phase I structures in the southeast portion of the site. The structures would be separated by a central breezeway which would provide access to the individual buildings. Approximately 10% of the lot would be landscaped with drought tolerate plants in accordance with City requirements. The balance of the site would be used for walkways and site access.

The proposed project would operate during normal business hours (8:00 a.m. to 5:00 p.m.) and typically be open from Monday through Friday. The business; however, depending on the timing of the cultivation cycle maybe be open on weekends and employees may be on-site for longer periods of time. All cultivation and harvesting activities would take place indoor. No retail point of sale is proposed as part of the proposed project.

Construction would require bulldozers, scrapers, and excavators for ground preparation, trenching, staking and flagging, installation and extension of utilities, and typical industrial building construction. Existing ruderal vegetation would be cleared. The runway within the project site would be demolished and removed and asphalt/concrete material hauled off-site. Minor grading would occur to level the site and concrete slab and piers would be installed. The proposed project would result in the grading to a depth of approximately two to three feet with approximately 4,054 yards of cut and fill and grading operations would include mixing and watering soil to enable compaction.

Construction for Phase I is anticipated to begin in late 2020/Early 2021 and last approximately 6 months. Phase II is anticipated to start approximately one year after Phase I is complete and last approximately 6 months.

3.0 METHODS

Based upon the criteria from Appendix G of the CEQA Guidelines, a project would have a significant effect on the environment if it would:

1. 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;

2. 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;
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
4. 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;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

To assess biological resources for the purposes of CEQA, a database review was conducted to identify the potential for special status biological resources to occur in the project vicinity and a field visit was completed.

An official species list was obtained from U.S. Fish and Wildlife Service to identify federally listed species that may occur in the Rio Vista USGS Quad and whether federally-designated critical habitat occurs on the project site. Rare plant records within the Rio Vista USGS Quad were obtained from the California Native Plant Society (CNPS). Last, the California Natural Diversity Database (CNDDDB) was reviewed within a 5-mile radius of the project site to identify recorded observations of state or federal listed species or rare plants. Special status species with potential to occur based on the database review are listed in Tables 1 and 2.

Following the above database review, a site visit was conducted by a biologist on July 22, 2020 to assess the potential for or presence of special status biological resources to occur on site. The results are summarized in Section 5 of this memo.

4.0 REGULATORY SETTING

4.1 Special Status Biological Resources

Special-status biological resources are defined as biological resources protected and/or regulated by federal, state, and/or local laws and policies, and include all species that are:

- listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA);
- listed or candidates for listing as threatened or endangered under the California Endangered Species Act (CESA);
- identified by California Department of Fish and Wildlife (CDFW) as Species of Special Concern;
- listed as Fully Protected under the California Fish and Game Code;
- listed as rare under the California Native Plant Protection Act;

- considered jointly by CDFW and CNPS to be “rare, threatened, or endangered in California” and assigned one of the following California Rare Plant Ranks (CRPR):
 - CRPR 1A - presumed extinct in California;
 - CRPR 1B - rare, threatened, or endangered in California and elsewhere;
 - CRPR 2A - presumed extirpated in California, but more common elsewhere;
 - CRPR 2B - rare threatened, or endangered in California, more common elsewhere;
 - CRPR 3 - Plants About Which More Information is Needed (review list)
- considered a locally significant species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G);
- otherwise meet the definition of rare or endangered under CEQA §15380 (b) and (d).

Special-status biological resources also include Sensitive Natural Communities (SNC) that are identified by CDFW as having a state (S) rarity rank of 1, 2, or 3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable. SNCs have high potential to support special-status plant and animal species. Most types of wetlands and riparian communities are considered SNCs due to their limited distribution in California. Additionally, most of these communities are also subject to regulation by the Corps’ jurisdiction under Section 404 of the Clean Water Act (CWA), by CDFW under Section 1602 of the California Fish and Game Code, and by the Regional Water Quality Control Board under the Porter-Cologne Water Quality Control Act.

4.2 Federal Regulations

4.2.1. Federal Endangered Species Act

The federal Endangered Species Act of 1973 (16 USC 1531–1544), as amended, protects plants, fish, and wildlife that are listed as endangered or threatened by the USFWS or National Oceanic and Atmospheric Administration’s National Marine Fisheries Service (NOAA Fisheries). Section 9 of the FESA prohibits the “take” of listed fish and wildlife, where “take” is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute prohibits removing, possessing, maliciously damaging, or destroying any listed plant under federal jurisdiction and removing, cutting, digging-up, damaging, or destroying any listed plant in knowing violation of state law (16 United States Code [USC] 1538). FESA does not protect plants growing on private property, unless state laws are violated in the course of harming the listed plant.

The FESA allows for issuance of incidental take permits to private parties either in conjunction with a Habitat Conservation Plan (HCP) or as part of a Section 7 consultation. Under Section 10 of the FESA, a private party may obtain incidental take coverage by preparing an HCP to cover target species within the proposed project area, identifying impacts to the covered species, and presenting the measures that will be undertaken to avoid, minimize, and mitigate such impacts.

4.2.2. Clean Water Act

The CWA regulates discharge of dredged or fill materials into waters of the U.S., including wetlands. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, developed by the U.S. Environmental Protection Agency (EPA) in conjunction with the U.S. Army Corps of Engineers (USACE) (40 C.F.R. Part 230). The USACE requires a permit if a project proposes placement of structures within navigable waters and/or alterations, including dredge or fill to waters of the U.S. The EPA administers the CWA and can override USACE CWA 404 permit issuance.

Wetlands are defined as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands under USACE jurisdiction must demonstrate the presence of three specific wetland parameters: hydric soils, hydrophytic vegetation, and sufficient wetland hydrology. Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as “other waters.”

Section 401 of the CWA requires an applicant to obtain a certification from the state that discharge to a water of the U.S. will comply with provisions of the CWA. The regional water quality control boards (RWQCBs) administer Section 401 of the CWA within California.

4.2.3. Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC Sections 703-711) protects migratory birds, their occupied nests, and their eggs from disturbance or destruction. Migratory birds include all nongame, wild birds found in the U.S., except the house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock pigeon (*Columba livia*). A complete list of protected species can be found in 50 CFR 10.13.

4.2.4. Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, prohibits the import, export, take (which includes molest or disturb), sale, purchase or barter of any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*), including their parts, nests, or eggs. Disturbance is defined as agitating or bothering a bald or golden eagle to a degree that causes, or is likely to cause, injury to an eagle, a decrease in its productivity, or nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.

4.3 State Regulations

4.3.1 California Endangered Species Act

California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.) establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA.

CDFW administers CESA and authorizes take through permits or memorandums of understanding issued under Section 2081 of CESA, or through a consistency determination issued under section 2080.1. Section 2090 of CESA requires state agencies to comply with threatened and endangered species protection and recovery and to promote conservation of these species.

The State of California first began to designate species as “Fully Protected” prior to the creation of the CESA and the FESA. Most fully protected species have since been listed as threatened or endangered under CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CFGC Section 4700) provide that fully protected species may not be taken or possessed at any time, nor can CDFW prohibit issue incidental take permits to any state agency for fully protected species, except for necessary scientific research.

4.3.2. California Fish and Game Code

Fish and Game Code Section 1602 requires any entity to notify CDFW before undertaking any activity that may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake. CDFW issues a Lake or Streambed Alteration Agreement for activities which are determined by CDFW to substantially adversely affect fish and wildlife resources. A Lake or Streambed Alteration Agreement is also required for the removal of vegetation within the riparian zone. CDFW’s jurisdiction includes a stream and its bed and bank, and extends to the outer edge of riparian vegetation, if present.

The California Fish and Game Code (CFCG) protects defined wildlife species. Section 2000 of the CFCG prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code. The CFCG also designated “fully protected” fish and wildlife species under Sections 3511, 4700, 5050, and 5515. No take of a Fully Protected species may occur and no incidental permits are issued for take of Fully Protected species. Fish and Game Code Section 3503 sets forth protections for the nest or eggs of birds, take possession or destruction of birds of prey, and protects raptor nests.

Section 4150 of CFGC protects prohibits take of bats and other non-game mammals. “Take” may include any activity resulting in mortality of non-game mammals, or disturbance sufficient to disrupt normal breeding activities, resulting in the death of young (e.g. destruction of a bat maternity colony or roost).

The Native Plant Protection Act of 1973 (Fish and Game Code Sections 1900–1913) protects certain plant species and includes provisions that prohibit the taking of endangered or rare native plants. CDFW administers the Native Plant Protection Act and defines rare plant species as most which have a CRPR ranking of 1A, 1B, 2A, and 2B. Some CRPR 3 and 4 plants are considered if the population has local significance in the area and is subject to project impacts.

4.3.3 Porter-Cologne Water Quality Control Act

The Porter-Cologne Act establishes protections for waters of the state, which are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” including isolated and non-navigable water and wetlands. The RWQCB administers the Act under the State Water Quality Certification Program which regulates discharges of fill and dredged material. Projects

that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact “Waters of the State,” are subject to a Water Quality Certification issued under the CWA Section 401.

If a proposed project does not require a federal permit but does involve dredge or fill activities that may result in a discharge to “waters of the State,” the RWQCB regulates the dredge and fill activities to waters of the state and issues Waste Discharge Requirements.

4.4 Local Plans and Regulations

The City of Rio Vista is a plan participant in the Draft Solano County Multispecies Habitat Conservation Plan (HCP). The HCP allows agencies to issue Incidental Take Permits to project applicants for impacts to federal and state listed endangered species within the plan area. The HCP identifies habitat resources at a countywide basis and contains conservation and mitigation measures to protect listed species for projects which would be covered by the HCP. While the City is a plan participant in the draft HCP, there are no federal or state listed species on the project site requiring permitting through the HCP.

There are no local City of Rio Vista Municipal Code and Ordinances for tree protection or other special status resources and habitats.

5.0 Results

A search of biological databases identified 16 special status animals and 8 special status plants with known or potential occurrences within the City of Rio Vista USGS Quad. Figures 3 and 4 show CNDDDB records of special status plant and animal species observations within a 5-mile radius of the project area.

Tables 1 and 2 summarize the preferred habitat types and likelihood of special status animal and plant species to occur in the project area, respectively. Of the 16 special status animals, the occurrence of one species, Swainson’s hawk (*Buteo swainsoni*), was recorded in CNDDDB within a 5-mile radius of the project area and has moderate potential to occur within or near the project site. Of the 8 special status plants, no CNDDDB observations of these species occurred on the project site and all are unlikely to occur on the project site.

There are no federally designated critical habitats or essential fish habitat within the project area. No sensitive natural communities, as defined by CDFW, were identified on site.

Field observations confirmed the vegetation in the project area and vicinity is dominated by ruderal non-native vegetation consistent with disturbed conditions. Some individual stands of golden poppy were observed (*Eschscholzia californica*) and a few small mammal burrows are present on site. The entirety of the site is in an upland area and no aquatic or riparian habitat exists on site. No road ruts, ditches, or other drainage features were observed to occur on site (Figures 5 through 7).

Natural Resource Conservation Service (NRCS) web soil survey reports the site is comprised entirely of Tujunga fine sand. Site observations were consistent with the NRCS data and little variability in soil type was observed where it was visible. This soil type has a high permeability, is excessively drained

and depth to a restrictive layer is more than 80 inches for this soil type. While vernal pool species were identified with potential to occur in the larger vicinity (USGS Quad), these soils are not conducive to holding water or resulting in a flooded or ponding condition. In addition, there is a lack of aquatic features in the areas immediately surrounding the site.

Table 1: Special status animal species and likelihood to occur in project area

Scientific Name	Common Name	Status	Habitat types	Likelihood to Occur in the Project Area
<i>Spirinchus thaleichthys</i>	longfin smelt	FC/ST	Estuarine open water. Spawns in fresh water in the upper end of the San Francisco Bay; occurs year-round in the Suisun Bay.	Not likely. No aquatic habitat is present in the project area
<i>Oncorhynchus mykiss irideus</i> pop. 11	steelhead - Central Valley DPS	FT	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen.	Not likely. No aquatic habitat is present in the project area
<i>Hypomesus transpacificus</i>	Delta smelt	FT/SE	Shallow tidal waters of the Sacramento and San Joaquin River Delta	Not likely. No aquatic habitat is present in the project area
<i>Branchinecta conservatio</i>	conservancy Fairy Shrimp	FE	Shallow, ephemeral, cool-water vernal pools with moderately turbid water. Known location in Solano County located at Jepson Prairie, over 15 miles from project area.	Not likely. No vernal pool habitat or depressional features observed in the project area
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT	Vernal pools and ditches in the Central Valley	Not likely. No vernal pool habitat or depressional features observed in the project area
<i>Lepidurus packardi</i>	Vernal pool tadpole shrimp	FE	Occurs in vernal pools, clay flats, alkaline pools, roadside ditches and road ruts. Endemic to the Central Valley	Not likely. No vernal pool habitat or depressional features observed in the project area

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Scientific Name	Common Name	Status	Habitat types	Likelihood to Occur in the Project Area
<i>Elaphrus viridis</i>	Delta green ground beetle	FT	Vernal pools and open grasslands adjacent to vernal pools or roadside ditches. Known location in Solano County located at Jepson Prairie, over 15 miles from project area.	Not likely. No vernal pool habitat or depressional features observed in the project area. No suitable habitat for prey species
<i>Callophrys mossii bayensis</i>	San Bruno elfin butterfly	FE	Rocky outcrops in coastal mountains near San Francisco.	Not likely. Project area is outside known habitat range and contains no suitable habitat
<i>Desmocerus californicus dimorphus</i>	Valley Elderberry Longhorn Beetle	FT	Near rivers and streams. Host plant is <i>Sambucus spp.</i>	Not likely. No riparian habitat on site or in the vicinity and no host plant. Present in project area.
<i>Apodemia mormo langei</i>	Lange's metalmark butterfly	FE	Sand dune habitat along San Joaquin River in Contra Costa County	Not likely. No habitat exists outside of Contra Costa County.
<i>Thamnophis gigas</i>	giant gartersnake	FT/ST	Associated with aquatic habitats near agricultural wetlands or waters; and adjacent uplands in the Sacramento and Central Valley	Not likely. No aquatic habitat is present in or adjacent to the project area
<i>Ambystoma californiense</i>	California tiger salamander Central CA DPS	FT/ST	Restricted to grasslands and low foothills with vernal pools and wetlands for breeding; uses small mammal burrows in suitable uplands during the dry season	Not likely. No aquatic habitat is present in or adjacent to the project area. Small mammal burrows exist on site but project area is surrounded by roads and developed areas and lack of aquatic habitat beyond the project area make migration to project area unlikely
<i>Rana draytonii</i>	California red-legged frog	FT	Breeds in pools or backwaters within streams, creeks, ponds and lagoons. Upland habitats include downed woody vegetation, small mammal burrows and refugia from heat and predators	Not likely. No aquatic habitat or suitable upland habitat is present in or adjacent to the project area

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Scientific Name	Common Name	Status	Habitat types	Likelihood to Occur in the Project Area
<i>Rallus obsoletus obsoletus</i>	California ridgway's rail (formerly California clapper rail)	FE/SE	Salty and brackish water marshes with pickleweed and cordgrass	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Buteo swainsoni</i>	Swainson's hawk	ST	Open and semi-open grasslands and prairies. Nest near riparian areas or lone trees in fields or pastures adjacent to suitable foraging habitat.	Moderate. Observed in 2007 within approximately 2 miles of project area. Undeveloped open areas in the vicinity could provide foraging habitat. There is a lack of suitable nesting habitat within the project area.
<i>Riparia riparia</i>	bank swallow	ST	Riparian areas, usually rivers in larger lowland valleys of northern California. Nests in colonies in vertical banks or bluffs in alluvial, friable soils.	Not likely. No riparian habitat is present in or adjacent to the project area
FE = Endangered Species under the Federal Endangered Species Act FT = Threatened Species under the Federal Endangered Species Act FC = Candidate for listing under the Federal Endangered Species Act SE = Endangered Species under the California Endangered Species Act ST = Threatened Species under the California Endangered Species Act DPS = Distinct population segment				

Table 2: Special status plant species and likelihood to occur in project area

Scientific Name	Common Name	Status	Habitat types	Potential to Occur in the Project Area
<i>Oenothera deltoides ssp. howellii</i>	Antioch Dunes evening-primrose	FE/SE	Dune systems along the San Joaquin River	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Lilaeopsis masonii</i>	Mason's lilaeopsis	SR 1B.1	Freshwater or brackish marshes or estuarine habitat	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Extriplex joaquinana</i>	San Joaquin spearscale	1B.2	Chenopod scrub species, meadows and seeps, valley foothill grassland, saline and alkaline	Not likely. Lack of suitable habitat present in or adjacent to the project area.

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Scientific Name	Common Name	Status	Habitat types	Potential to Occur in the Project Area
<i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	woolly rose-mallow	1B.2	Marshes	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Juglans hindsii</i>	Northern California black walnut	1B.1	Riparian, forested and woodland areas	Not likely. No suitable habitat is present in or adjacent to the project area. Not observed during field visit
<i>Lathyrus jepsonii</i> var. <i>jepsonii</i>	Delta tule pea	1B.2	Brackish and freshwater marshes and slough edges	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Sagittaria sanfordii</i>	Sanford's arrowhead	1B.2	Shallow, freshwater marshes and swamps at elevations lower than approximately 2,100 feet	Not likely. No suitable habitat is present in or adjacent to the project area
<i>Symphotrichum lentum</i>	Suisun Marsh aster	1B.2	Brackish and freshwater marshes	Not likely. No suitable habitat is present in or adjacent to the project area
CR = 'Rare' plant species under the California Native Plant Species Protection Act; California Rare Plant Designation Ranking 1A - presumed extinct in California; 1B - rare, threatened, or endangered in California and elsewhere; 2A - presumed extirpated in California, but more common elsewhere; 2B - rare threatened, or endangered in California, more common elsewhere; 3 - Plants About Which More Information is Needed (review list)				

5.0 Conclusion

Review of readily available and relevant biological data, and a field visit determined the site lacks suitable habitat and, with the exception of one species, it is unlikely for special status biological resources to occur on site. This is mainly attributed to the highly disturbed nature of the site, the area is surrounded by roads and existing disturbed or developed areas, and the lack of aquatic and riparian habitats in the project area and vicinity.

Given the presence of small mammal burrows and past observations of Swainson's hawk within approximately 2 miles of the project site, there is moderate potential for the species to occur in the project area. Potential foraging habitat exists on site though is marginal given the relatively small size of the site and that it is surrounded by roads on two sides and a development on the third side. There is no suitable nesting habitat on site. Within urban areas, construction activities (e.g., heavy equipment operation) within 0.25 mile could have potential to disturb nesting species. To avoid this potential indirect impact to Swainson's hawk the following mitigation measure (MM) is recommended.

MM BIO-1: If construction activities are planned to begin after March 1, a preconstruction breeding survey for Swainson’s hawks will be conducted throughout areas of suitable nesting habitat within 0.25 miles of the project site. If a Swainson’s hawk nest is observed within 0.25 mile of planned construction activities, CDFW will be contacted to determine whether project-related activities are likely to impact the nesting pair and whether any avoidance and minimization measures must be established to avoid impacts.

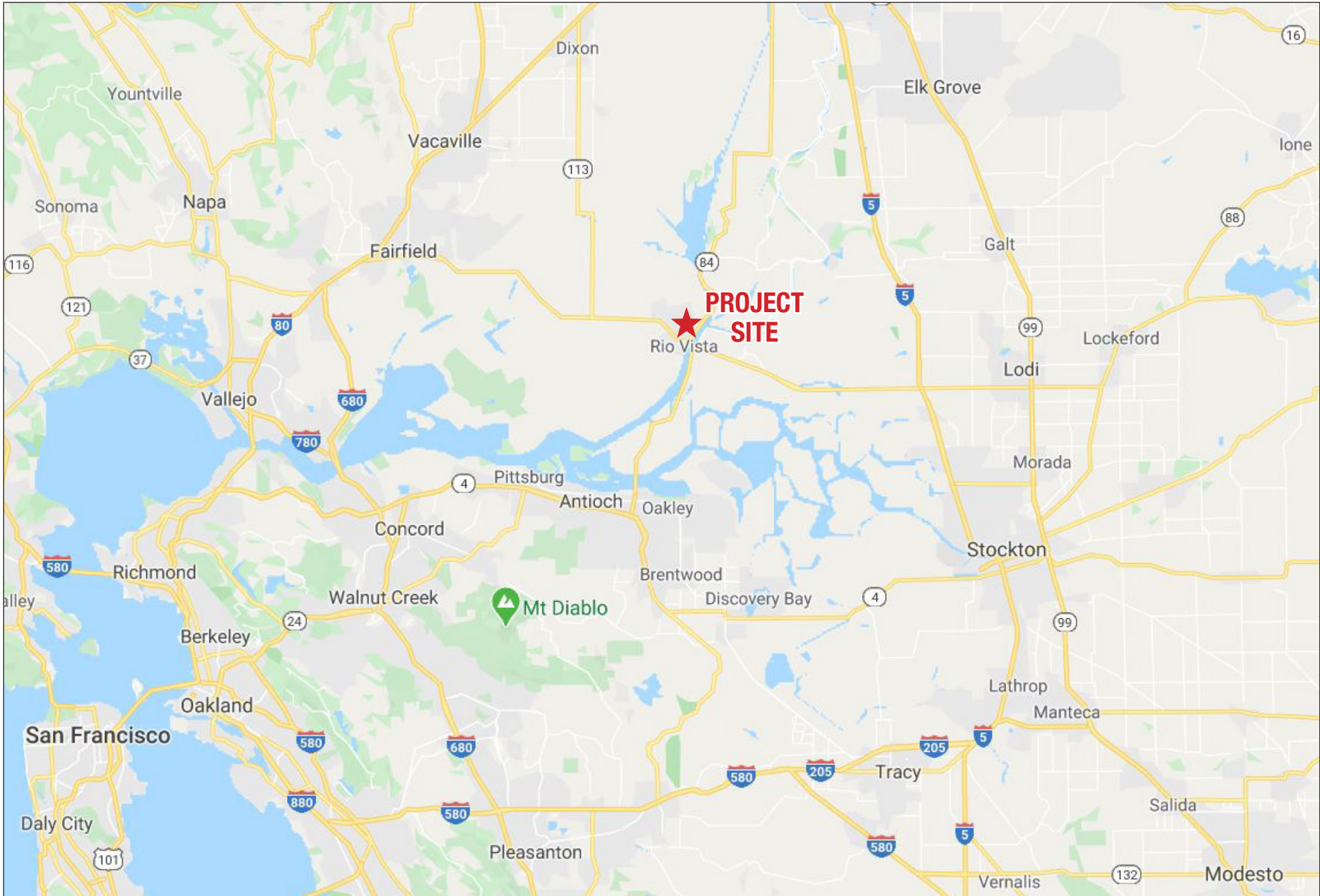


FIGURE 1: Regional Location Map
Snowtill Project

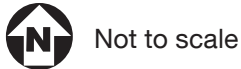
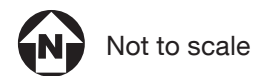




FIGURE 2: Local Vicinity Map
Snowtill Project



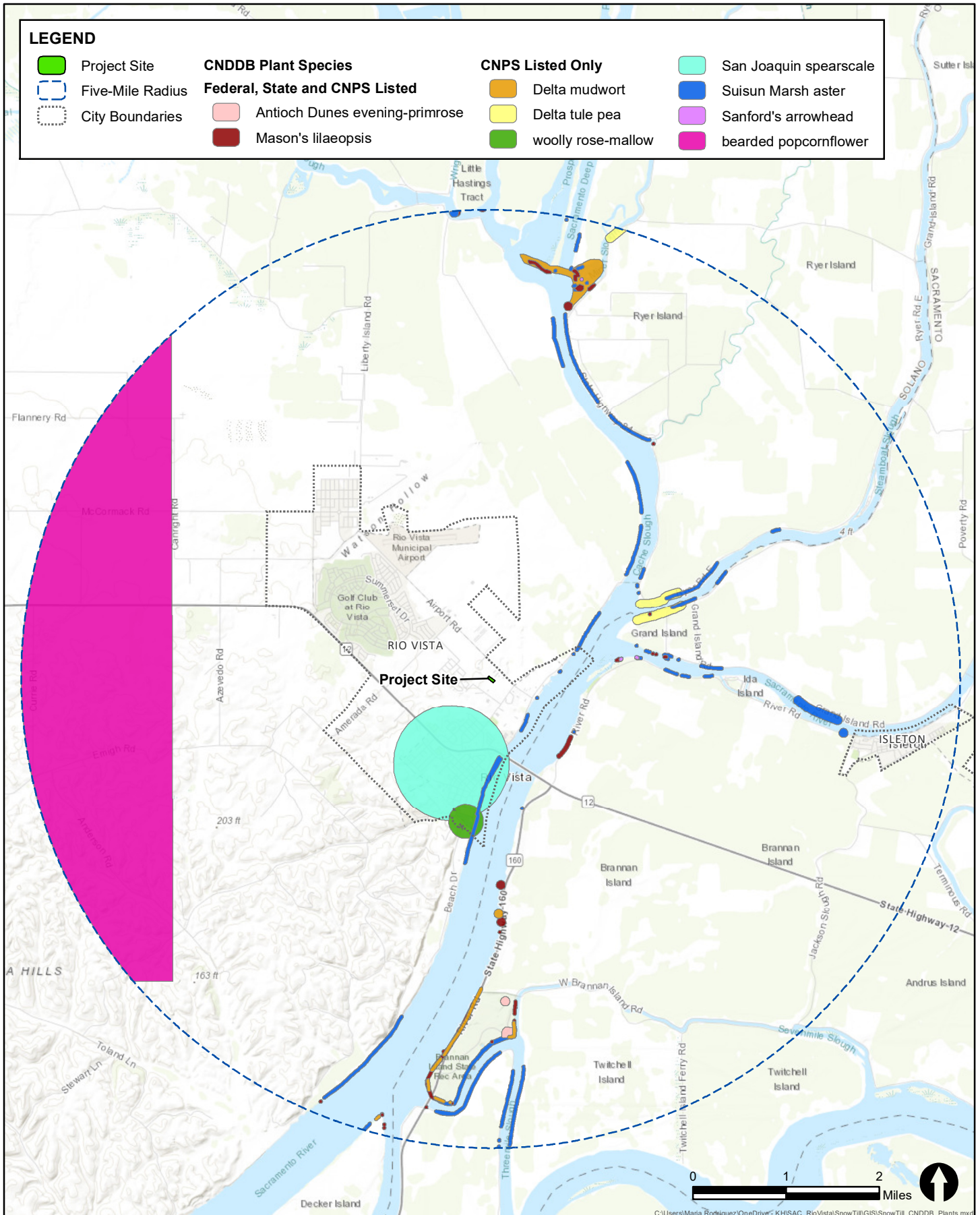


FIGURE 3: CNDDDB Listed Plant Species
Snowtill Project

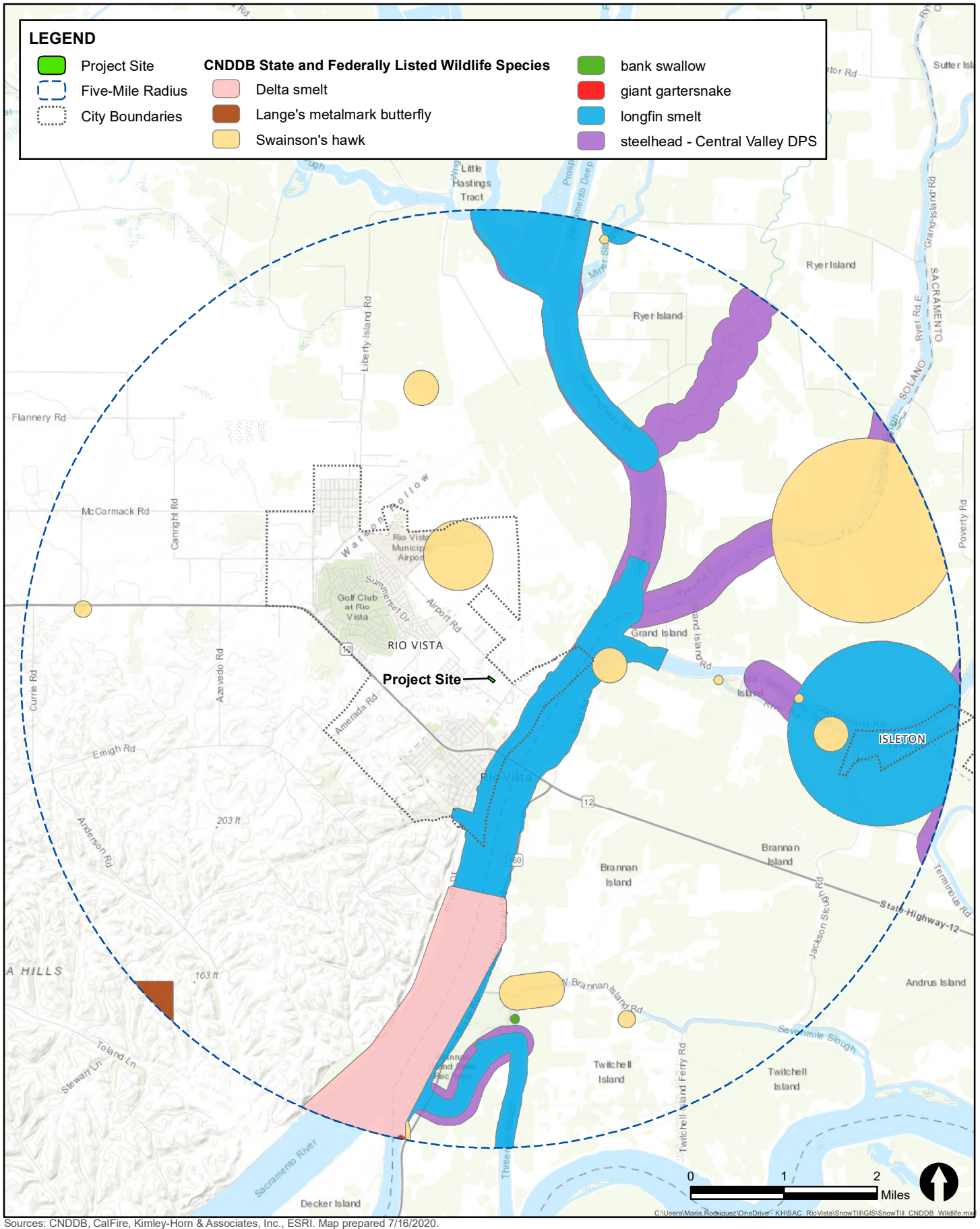


FIGURE 4: CNDDDB Listed Wildlife Species
Snowtill Project

Figure 5. Project site looking northwest



Figure 6. Project site looking southwest



Figure 7. Remnants of runway on project site and the adjacent development north of the project site



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Appendix C
Geotechnical Engineering Report



Geotechnical Engineering Report

Snowtill Project
Rio Vista, California

July 10, 2020

Terracon Project No. NA205011

Prepared for:

JNL Capital LLC
Oakland, CA

Prepared by:

Terracon Consultants, Inc.
Lodi, California



July 10, 2020

JNL Capital LLC
675 Hegenberger Road
Oakland, CA 94621



Attn: Ian Clark
P: (718) 664 7339
E: ianashlin@gmail.com

Re: Geotechnical Engineering Report
Snowtill Project
Industrial Court
Rio Vista, California
Terracon Project No. NA205011

Dear Mr. Clark:

We have completed the Geotechnical Engineering services for the above referenced project. This study was performed in general accordance with Terracon Proposal No. PNA205011 dated January 30, 2020. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning earthwork and the design and construction of foundations, floor slabs, and pavements for the proposed project.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,
Terracon Consultants, Inc.

Christopher B. Congrave, Associate
EIT 157943
Senior Staff Engineer

Garret S.H. Hubbart, Principal
Geotechnical Engineer 2588
Office Manager

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Note: This report was originally delivered in a web-based format. **Orange Bold** text in the report indicates a referenced section heading. The PDF version also includes hyperlinks which direct the reader to that section and clicking on the **GeoReport** logo will bring you back to this page. For more interactive features, please view your project online at client.terracon.com.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES
SITE LOCATION AND EXPLORATION PLANS
EXPLORATION RESULTS
SUPPORTING INFORMATION

Note: Refer to each individual Attachment for a listing of contents.

REPORT SUMMARY

Topic ¹	Overview Statement ²
Project Description	The project will consist of constructing a commercial building with parking.
Geotechnical Characterization	The near surface soils consist of loose to medium dense sand with various amounts of silt. The near surface soil layers are underlain by varying interbedded layers of silt with varying levels of sand and sand with various amounts of silt. Groundwater was encountered at 24 feet below ground surface (bgs) during our field explorations.
Earthwork	Support the foundations on a minimum of 12 inches of compacted native soil or engineered fill. Support the floor slab on a minimum of 12 inches of compacted native soil or non-expansive engineered fill.
Shallow Foundations	Shallow foundations will be sufficient Allowable bearing pressure = 2,500 psf Expected settlements: < 1-inch total, < ½-inch differential
Deep Foundations	Deep foundations are not necessary for this site unless potential liquefaction induced settlement is to be entirely mitigated. Deep foundations are very costly.
Below-Grade Structures	None
Pavements	See the Pavements section for descriptions of pavement thicknesses.
General Comments	This section contains important information about the limitations of this geotechnical engineering report.

1. If the reader is reviewing this report as a pdf, the topics above can be used to access the appropriate section of the report by simply clicking on the topic itself.
2. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

Geotechnical Engineering Report

Snowtill Project

Industrial Court

Rio Vista, California

Terracon Project No. NA205011

July 10, 2020

INTRODUCTION

This report presents the results of our subsurface exploration and geotechnical engineering services performed for the proposed Snowtill project to be located at Industrial Court in Rio Vista, California. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site preparation and earthwork
- Excavation considerations
- Foundation design and construction
- Floor slab design and construction
- Pavement design and construction
- Seismic site classification per 2019 CBC

The geotechnical engineering Scope of Services for this project included the advancement of six test borings to depths ranging from approximately 6½ to 51½ feet below existing site grades.

Maps showing the site and boring locations are shown in the **Site Location** and **Exploration Plan** sections, respectively. The results of the laboratory testing performed on soil samples obtained from the site during the field exploration are included on the boring logs and/or as separate graphs in the **Exploration Results** section.

SITE CONDITIONS

The following description of site conditions is derived from our site visit in association with the field exploration and our review of publicly available geologic and topographic maps.

Item	Description
Parcel Information	The project is located at Industrial Court in Rio Vista, California. APN: 0178-230-180 38.1717°N / 121.6885°W See Site Location
Existing Improvements	The project site is currently an empty lot.

Item	Description
Current Ground Cover	Bare ground with moderate vegetation.
Existing Topography	Site is relatively flat.

PROJECT DESCRIPTION

Our initial understanding of the project was provided in our proposal and was discussed during project planning. A period of collaboration has transpired since the project was initiated, and our final understanding of the project conditions is as follows:

Item	Description
Information Provided	We were provided an email from Nate Landau dated January 17, 2020 which included project information, a floor plan, and a site plan.
Project Description	The project will consist of constructing a commercial building with parking
Proposed Structure	The structure will consist a single-story building with a footprint of about 14,724 square feet.
Building Construction	We anticipate the structure will be a single-story, steel framed structure with a concrete slab-on-grade floor. Pavement and landscaping will also be constructed as part of the project
Finished Floor Elevation	Unknown, but expected to be within 2 feet of original grade
Maximum Loads (assumed)	<ul style="list-style-type: none"> ■ Columns: 40 to 60 kips ■ Walls: 1 to 3 kips per linear foot (klf)
Grading	Up to 2 feet of cut and 2 feet of fill may be required to develop final grade.
Below-Grade Structures	None anticipated.
Free-Standing Retaining Walls	None anticipated.
Pavements	<p>Paved driveway and parking will be constructed as part of this project. We assume both rigid (concrete) and flexible (asphalt) pavement sections should be considered.</p> <p>Anticipated traffic is as follows:</p> <ul style="list-style-type: none"> ■ Auto/light trucks: 30 vehicles per day ■ Light delivery and trash collection vehicles: 10 vehicles per week <p>The pavement design period is 20 years</p>
Estimated Start of Construction	Unknown

GEOTECHNICAL CHARACTERIZATION

We have developed a general characterization of the subsurface conditions based upon our review of the subsurface exploration, laboratory data, geologic setting and our understanding of the project.

The near surface soils consist of loose to medium dense sand with various amounts of silt. The near surface soil layers are underlain by varying interbedded layers of silt with varying levels of sand and sand with various amounts of silt. Groundwater was encountered at 24 feet below ground surface (bgs) during our field explorations.

Conditions encountered at each boring location are indicated on the individual boring logs shown in the **Exploration Results** section and are attached to this report. Stratification boundaries on the boring logs represent the approximate location of changes in native soil types; in situ, the transition between materials may be gradual.

GEOTECHNICAL OVERVIEW

The near surface, loose to medium dense sandy soil could become unstable and pump with typical earthwork and construction traffic, especially after precipitation events. Effective site drainage should be completed early in the construction sequence and maintained after construction to avoid potential issues. If possible, the grading should be performed during the warmer and drier times of the year. If grading is performed during winter months, an increased risk for possible undercutting and replacement of unstable subgrade will persist. Additional site preparation recommendations, including subgrade improvements and fill placements, are provided in the **Earthwork** section.

The **Shallow Foundation** section addresses support of the building bearing on recompacted native sand or engineered fill. The **Floor Slabs** section addresses support of the concrete slab-on-grade floor.

Either a flexible (asphalt concrete) or a rigid (Portland cement concrete) pavement system or both may be considered for this project. The **Pavements** section addresses the design and construction of pavement.

The **General Comments** section provides an understanding of the report limitations.

EARTHWORK

Earthwork is anticipated to include clearing and grubbing, excavations, and fill placement. The following sections provide recommendations for use in the preparation of specifications for the

work. Recommendations include critical quality criteria, as necessary, to render the site in the state considered in our geotechnical engineering evaluation for foundations, floor slabs, and pavements.

Site Preparation

Prior to placing fill, existing vegetation and root mat should be removed. Complete stripping of the topsoil should be performed in the proposed building and parking/driveway areas.

Underground facilities may be encountered during construction. If underground facilities are encountered, such materials and features should be completely removed and the excavation thoroughly cleaned prior to backfill placement and/or construction.

Once cuts have been made and prior to placing any engineered fill, the subgrade should be proofrolled with an adequately loaded vehicle such as a fully-loaded tandem-axle dump truck or water truck. The proofrolling should be performed under the direction of the Geotechnical Engineer. Areas excessively deflecting under the proofroll should be delineated and subsequently addressed by the Geotechnical Engineer. Such areas should either be removed or moisture conditioned and recompacted. Such areas may also be modified by stabilizing with lime/cement or aggregate base with geogrids.

The exposed subgrade soil should be scarified, moisture conditioned, and compacted. The depth of scarification of subgrade soils and moisture conditioning of the subgrade is highly dependent upon the time of year of construction and the site conditions that exist immediately prior to construction. If construction occurs during the winter or spring, when the subgrade soils are typically already in a moist condition, scarification and compaction may only be 8 inches. If construction occurs during the summer or fall when the subgrade soils have been allowed to dry out deeper, the depth of scarification and moisture conditioning may be as much as 18 inches. A representative of our office should be present to observe the exposed subgrade and specify the depth of scarification and moisture conditioning required subsequent to grading cuts and prior to placing fill.

Fill Material Types

All fill materials should be inorganic soils free of vegetation, debris, and fragments larger than three inches in size. Pea gravel or other similar non-cementitious, poorly-graded materials should not be used as fill or backfill without the prior approval of the geotechnical engineer.

Imported earth materials for use as engineered fill should be pre-approved by our representative prior to construction. Imported non-expansive soils may be used as fill material for the following:

- general site grading
- foundation areas
- foundation backfill
- trench backfill

- slab-on-grade floor
- exterior slabs-on-grade
- pavement subgrade

Soils for use as compacted engineered fill material within the proposed building pad area should conform to non-expansive materials as indicated in the following recommendations:

Percent Finer by Weight	
<u>Gradation</u>	<u>(ASTM C 136)</u>
3"	100
No. 4 Sieve	50 - 100
No. 200 Sieve	15 - 50
■ Liquid Limit	30 (max)
■ Plasticity Index	10 (max)
■ Maximum Expansive Index*	20 (max)

*ASTM D 4829

The on-site near surface sandy soils do not meet the specifications above based on percent finer passing the No. 200 sieve. In our opinion the existing sandy soil may still be used as engineered fill given the footings are able to remain open and free of caving in. Engineered fill should be placed and compacted in horizontal lifts, using equipment and procedures that will produce recommended moisture contents and densities throughout the lift. Fill lifts should not exceed ten inches in loose thickness. The engineered fill should extend at least 5 feet beyond the perimeter of any foundations.

The contractor shall notify the Geotechnical Engineer of import sources sufficiently ahead of their use so that the sources can be observed and approved as to the physical characteristic of the import material. For all import material, the contractor shall also submit current verified reports from a recognized analytical laboratory indicating that the import has a "not applicable" (Class S0) potential for sulfate attack based upon current ACI criteria and is only "mildly corrosive" to ferrous metal and copper. The reports shall be accompanied by a written statement from the contractor that the laboratory test results are representative of all import material that will be brought to the job.

Fill Compaction Requirements

Recommended compaction and moisture content criteria for engineered fill materials are as follows:

Material Type and Location	Per the Modified Proctor Test (ASTM D 1557)		
	Minimum Compaction Requirement (%)	Range of Moisture Contents for Compaction Above Optimum	
		Minimum	Maximum
<u>On-site sandy soils and Low volume change (non-expansive) imported fill:</u>			
Beneath foundations:	90	0%	+3%
Beneath slabs	90	0%	+3%
Miscellaneous backfill:	90	0%	+3%
Beneath pavement:	95	0%	+3%
Utility Trenches*:	90	0%	+4%
Bottom of native soil excavation receiving fill:	90	+2%	+4%

*The upper 12 inches beneath pavement should be compacted to 95% of the maximum dry density as determined in the ASTM D1557 test method.

We recommend that compacted native soil or any engineered fill be tested for moisture content and relative compaction during placement. Should the results of the in-place density tests indicate the specified moisture content or compaction requirements have not been met, the area represented by the test should be reworked and retested as required until the specified moisture content and relative compaction requirements are achieved.

Utility Trench Backfill

Utility trenches are a common source of water infiltration and migration. Utility trenches penetrating beneath the building should be effectively sealed to restrict water intrusion and flow through the trenches, which could migrate below the building. The trench should provide an effective trench plug that extends at least 5 feet from the face of the building exterior. The plug material should consist of cementitious flowable fill or low permeability clay. The trench plug material should be placed to surround the utility line. If used, the clay trench plug material should be placed and compacted to comply with the water content and compaction recommendations for structural fill stated previously in this report.

Grading and Drainage

All grades must provide effective drainage away from the building during and after construction and should be maintained throughout the life of the structure. Water retained next to the building can result in soil movements greater than those discussed in this report. Greater movements can result in unacceptable differential floor slab and/or foundation movements, cracked slabs and walls, and roof leaks. The roof should have gutters/drains with downspouts that discharge onto pavements or are tied to tight lines that discharge into the on-site storm drain system.

Exposed ground should be sloped and maintained at a minimum 5% away from the building for at least 10 feet beyond the perimeter of the building. Locally, flatter grades may be necessary to transition ADA access requirements for flatwork. After building construction and landscaping have been completed, final grades should be verified to document effective drainage has been achieved. Grades around the structure should also be periodically inspected and adjusted, as necessary, as part of the structure's maintenance program. Where paving or flatwork abuts the structure, a maintenance program should be established to effectively seal and maintain joints and prevent surface water infiltration.

Earthwork Construction Considerations

Shallow excavations for the proposed structure are anticipated to be accomplished with conventional construction equipment. Upon completion of filling and grading, care should be taken to maintain the subgrade water content prior to construction of floor slabs. Construction traffic over the completed subgrades should be avoided. The site should also be graded to prevent ponding of surface water on the prepared subgrades or in excavations. Water collecting over or adjacent to construction areas should be removed. If the subgrade desiccates, saturates, or is disturbed, the affected material should be removed, or the materials should be scarified, moisture conditioned, and recompacted prior to floor slab construction.

As a minimum, excavations should be performed in accordance with OSHA 29 CFR, Part 1926, Subpart P, "Excavations" and its appendices, and in accordance with any applicable local, and/or state regulations.

Construction site safety is the sole responsibility of the contractor who controls the means, methods, and sequencing of construction operations. Under no circumstances shall the information provided herein be interpreted to mean Terracon is assuming responsibility for construction site safety, or the contractor's activities; such responsibility shall neither be implied nor inferred.

Construction Observation and Testing

The earthwork efforts should be monitored under the direction of the Geotechnical Engineer. Monitoring should include documentation of adequate removal of vegetation and topsoil, proofrolling, and mitigation of areas delineated by the proofroll to require mitigation.

Each lift of compacted fill should be tested, evaluated, and reworked, as necessary, until approved by the Geotechnical Engineer prior to placement of additional lifts. Each lift of fill should be tested for density and water content at a frequency of at least one test for every 1,500 square feet of compacted fill in the building areas and 5,000 square feet in pavement areas. One density and water content test should be performed for every 12-inch thick lift for every 50 linear feet of compacted utility trench backfill.

In areas of foundation excavations, the bearing subgrade should be evaluated under the direction of the Geotechnical Engineer. If unanticipated conditions are encountered, the Geotechnical Engineer should prescribe mitigation options.

In addition to the documentation of the essential parameters necessary for construction, the continuation of the Geotechnical Engineer into the construction phase of the project provides the continuity to maintain the Geotechnical Engineer’s evaluation of subsurface conditions, including assessing variations and associated design changes.

SHALLOW FOUNDATIONS

If the site has been prepared in accordance with the requirements noted in **Earthwork**, the following design parameters are applicable for shallow foundations. In order to provide uniform support for the foundations, we recommend the bottom of all foundation excavations be compacted with jumping jack or similar hand-operated equipment.

Design Parameters – Compressive Loads

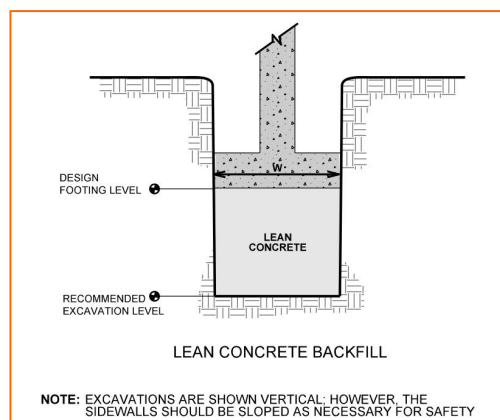
Item	Description
Maximum Net Allowable Bearing pressure ^{1, 2}	2,500 pounds per square foot
Required Bearing Stratum ³	12 inches of compacted native soils or 12 inches of engineered fill
Minimum Foundation Dimensions	Columns: 24 inches Continuous: 12 inches
Maximum Foundation Dimensions	Columns: 72 inches Continuous: 36 inches
Ultimate Passive Resistance ⁴ (equivalent fluid pressures)	350 pcf
Ultimate Coefficient of Sliding Friction ⁵	0.40
Minimum Embedment below Finished Grade ⁶	12 inches
Estimated Total Settlement from Structural Loads ²	Less than about 1 inch
Estimated Differential Settlement ^{2, 7}	About ½ of total settlement

Item	Description
1.	The maximum net allowable bearing pressure is the pressure in excess of the minimum surrounding overburden pressure at the footing base elevation. An appropriate factor of safety has been applied. These bearing pressures can be increased by 1/3 for transient loads unless those loads have been factored to account for transient conditions. Values assume that exterior grades are relatively flat around the structure.
2.	Values provided are for maximum loads noted in Project Description .
3.	Unsuitable or soft soils should be over-excavated and replaced per the recommendations presented in the Earthwork .
4.	Use of passive earth pressures require the sides of the excavation for the spread footing foundation to be nearly vertical and the concrete placed neat against these vertical faces or that the footing forms be removed and compacted structural fill be placed against the vertical footing face. If passive resistance is used to resist lateral loads, the base friction should be reduced by 25 percent.
5.	Can be used to compute sliding resistance where foundations are placed on suitable soil/materials. Should be neglected for foundations subject to net uplift conditions.
6.	Embedment necessary to minimize the effects of seasonal water content variations. Finished grade is defined as the lowest adjacent grade within five feet of the foundation for perimeter (exterior) footings.
7.	Differential settlements are as measured over a span of 50 feet.

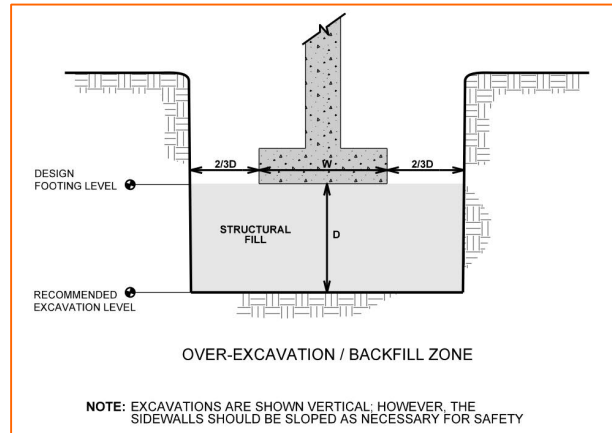
Foundation Construction Considerations

As noted in **Earthwork**, the footing excavations should be evaluated under the direction of the Geotechnical Engineer. The base of all foundation excavations should be free of water and loose soil, prior to placing concrete. Concrete should be placed soon after excavating to reduce bearing soil disturbance. Care should be taken to prevent wetting or drying of the bearing materials during construction. Excessively wet or dry material or any loose/disturbed material in the bottom of the footing excavations should be removed/reconditioned before foundation concrete is placed.

If unsuitable bearing soils are encountered at the base of the planned footing excavation, the excavation should be extended deeper to suitable soils, and the footings could bear directly on these soils at the lower level or on lean concrete backfill placed in the excavations. This is illustrated on the sketch below.



Over-excavation for structural fill placement below footings should be conducted as shown below. The over-excavation should be backfilled up to the footing base elevation, with engineered fill placed, as recommended in the **Earthwork** section.



To ensure foundations have adequate support, special care should be taken when footings are located adjacent to trenches. The bottom of such footings should be at least 1 foot below an imaginary plane with an inclination of 1.5 horizontal to 1.0 vertical extending upward from the nearest edge of the adjacent trench.

SEISMIC CONSIDERATIONS

The 2019 California Building Code (CBC) Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool. This web-based software application calculates seismic design parameters in accordance with ASCE 7-16 and 2019 CBC. The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S_1 value greater than or equal 0.2.

However, Section 11.4.8 of ASCE 7-16 includes an exception from such analysis for specific structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) states that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." Based on our understanding of the proposed structures, it is our assumption that the exception in Section 11.4.8 does apply to the proposed structures. However, the structural engineer should verify the applicability of this exception.

Based on this exception, the spectral response accelerations presented below were calculated using the site coefficients (F_a and F_v) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

Description	Value
2019 California Building Code Site Classification (CBC) ¹	D ²
Site Latitude	38.1717° N
Site Longitude	121.6885° W
S_s Spectral Acceleration for a Short Period	1.099g
S₁ Spectral Acceleration for a 1-Second Period	0.395g
F_a Site Coefficient for a Short Period	1.061
F_v Site Coefficient for a 1-Second Period	1.905
S_{MS} Maximum Considered Spectral Response Acceleration for a Short Period	1.165g
S_{M1} Maximum Considered Spectral Response Acceleration for a 1-Second Period	0.752g
S_{DS} Design Spectral Acceleration for a Short Period ³	0.777g
S_{D1} Spectral Acceleration for a 1-Second Period ³	0.502g
PGA_M Peak Ground Acceleration	0.522g

1. Seismic site classification in general accordance with the *2019 California Building Code*, which refers to ASCE 7-16.
2. The 2019 California Building Code (CBC) uses a site profile extending to a depth of 100 feet for seismic site classification. Borings at this site were extended to a maximum depth of 51½ feet. The site properties below the boring depth to 100 feet were estimated based on our experience and knowledge of geologic conditions of the general area. Additional deeper borings or geophysical testing may be performed to confirm the conditions below the current boring depth.
3. These values were obtained using online seismic design maps and tools provided by the USGS and OSHPD (<https://seismicmaps.org/>).

LIQUEFACTION

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils or non-plastic fine-grained soils exist below groundwater. The California Geologic Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table. The project site is not located within a liquefaction hazard zone mapped by the CGS.

However, due to the shallow depth to groundwater and the soil conditions encountered in our exploratory borings, a detailed liquefaction analysis was conducted utilizing the SPT correlation procedures set forth by Idriss and Boulanger (2014). We assumed a groundwater depth of 24 feet bgs in our analysis based on historic groundwater elevations. The analysis uses correlations

based on SPT blow counts recorded at uniform intervals throughout the boring. The analysis of potential liquefaction was calculated based on the soil conditions encountered in boring B1. Based on the analysis, the liquefaction potential is judged to be moderate due to the presence of a layer of medium stiff to stiff sandy silt (25 to 33 feet bgs) which exhibited low SPT blow counts. Total settlement due to liquefaction is expected to be about 1½ to 2 inches across the site based on the soil conditions at boring B1. Given the thickness of the non liquefiable overburden of about 25 feet, the differential settlement across the building pad should be less than approximately one-half of the total settlement.

FLOOR SLABS

Design parameters for floor slabs assume the requirements for **Earthwork** have been followed. Specific attention should be given to positive drainage away from the structure.

Floor Slab Design Parameters

Item	Description
Floor Slab Support ¹	Minimum 4 inches of free-draining crushed aggregate at office areas, areas with floor coverings, and/or areas sensitive to moisture vapor transmission ² A minimum of 6 inches of Class 2 aggregate base shall be used for warehouse floor areas subject to loading. At least 12 inches of non-expansive engineered fill or recompacted native silty sand, not including the floor slab underlayment (gravel or Class 2 aggregate base)
Estimated Modulus of Subgrade Reaction ³	150 pounds per square inch per inch (psi/in) for point loads

1. Floor slabs should be structurally independent of building footings or walls to reduce the possibility of floor slab cracking caused by differential movements between the slab and foundation.
2. Free-draining granular material should have less than 5% fines (material passing the No. 200 sieve).
3. Modulus of subgrade reaction is an estimated value based upon our experience with the subgrade condition, the requirements noted in **Earthwork**, and the floor slab support as noted in this table. It is provided for point loads. For large area loads the modulus of subgrade reaction would be lower.

The use of a vapor retarder should be considered beneath concrete slabs on grade covered with wood, tile, carpet, or other moisture sensitive or impervious coverings, or when the slab will support equipment sensitive to moisture. When conditions warrant the use of a vapor retarder, the slab designer should refer to ACI 302 and/or ACI 360 for procedures and cautions regarding the use and placement of a vapor retarder.

Saw-cut control joints should be placed in the slab to help control the location and extent of cracking. For additional recommendations refer to the ACI Design Manual. Joints or cracks should be sealed with a water-proof, non-extruding compressible compound specifically recommended for heavy duty concrete pavement and wet environments.

Where floor slabs are tied to perimeter walls or turn-down slabs to meet structural or other construction objectives, our experience indicates differential movement between the walls and slabs will likely be observed in adjacent slab expansion joints or floor slab cracks beyond the length of the structural dowels. The Structural Engineer should account for potential differential settlement through use of sufficient control joints, appropriate reinforcing or other means.

Floor Slab Construction Considerations

Finished subgrade, within and for at least 10 feet beyond the floor slab, should be protected from traffic, rutting, or other disturbance and maintained in a relatively moist condition until floor slabs are constructed. If the subgrade should become damaged or desiccated prior to construction of floor slabs, the affected material should be removed and structural fill should be added to replace the resulting excavation. Final conditioning of the finished subgrade should be performed immediately prior to placement of the floor slab support course.

The Geotechnical Engineer should approve the condition of the floor slab subgrades immediately prior to placement of the floor slab support course, reinforcing steel, and concrete. Attention should be paid to high traffic areas that were rutted and disturbed earlier, and to areas where backfilled trenches are located.

PAVEMENTS

General Pavement Comments

Pavement designs are provided for the traffic conditions and pavement life conditions as noted in **Project Description** and in the following sections of this report. A critical aspect of pavement performance is site preparation. Pavement designs noted in this section must be applied to the site which has been prepared as recommended in the **Earthwork** section.

Design of Asphaltic Concrete (AC) pavements are based on the procedures in the Caltrans Highway Design Manual, 2018 edition. Design of Portland Cement Concrete (PCC) pavements are based upon American Concrete Institute (ACI) 330R-01; Guide for Design and Construction of Concrete Parking Lots.

Two sample of the near surface soils were obtained and classified at our laboratory by an engineer. The samples were tested to determine its Resistance Value (R-value). The location of the R-value samples are shown on the Exploration Plan. The tests produced R-values of 72 &

73. The Caltrans design method allows the use of a maximum R-Value of 50 in design. Therefore, a design R-value of 50 was used for the AC and PCC pavement designs. We have provided pavement sections for traffic indices (TI) of 4.0 through 7.0. The project civil engineer should determine the appropriate TI for the development. If additional pavement sections are required, we should be contacted to provide the additional recommendations.

Pavement Section Thicknesses

The following table provides options for AC and PCC Sections:

Asphaltic Concrete Design				
Layer	Thickness (inches)			
	TI=4.0	TI= 5.0	TI= 6.0	TI=7.0
AC ¹	2.5	3.0	3.5	4.0
Aggregate Base	4.0	4.0	4.0	5.0

^{1.} All materials should meet the current Caltrans Standard Specifications, latest edition

Portland Cement Concrete Design				
Layer	Thickness (inches)			
	TI=4.0	TI=5.0	TI=6.0	TI=7.0
PCC ¹	5.0	5.0	5.5	6.0
Aggregate Base	4.0	4.0	4.0	5.0

^{1.} All materials should meet the current Caltrans Standard Specifications, latest edition.

The estimated pavement sections provided in this report are minimums for the assumed design criteria, and as such, periodic maintenance should be expected. Areas for parking of heavy vehicles, concentrated turn areas, and start/stop maneuvers could require thicker pavement sections. Edge restraints (i.e. concrete curbs or aggregate shoulders) should be planned along curves and areas of maneuvering vehicles. A maintenance program including surface sealing, joint cleaning and sealing, and timely repair of cracks and deteriorated areas will increase the pavement's service life. As an option, thicker sections could be constructed to decrease future maintenance.

Concrete for rigid pavements should have a minimum 28-day compressive strength of 4,000 psi, a modulus of rupture of 500 psi, and be placed with a maximum slump of 4 inches. Proper joint spacing will also be required to prevent excessive slab curling and shrinkage cracking. Joints

should be sealed to prevent entry of foreign material and dowelled where necessary for load transfer.

Where practical, we recommend early-entry cutting of crack-control joints in PCC pavements. Cutting of the concrete in its “green” state typically reduces the potential for micro-cracking of the pavements prior to the crack control joints being formed, compared to cutting the joints after the concrete has fully set. Micro-cracking of pavements may lead to crack formation in locations other than the sawed joints, and/or reduction of fatigue life of the pavement.

Pavement design methods are intended to provide structural sections with adequate thickness over a subgrade such that wheel loads are reduced to a level the subgrade can support.

Openings in pavements, such as decorative landscaped areas, are sources for water infiltration into surrounding pavement systems. Water can collect in the islands and migrate into the surrounding subgrade soils thereby degrading support of the pavement. This is especially applicable for islands with raised concrete curbs, irrigated foliage, and low permeability near-surface soils. The civil design for the pavements with these conditions should include features to restrict or to collect and discharge excess water from the islands. Examples of features are edge drains connected to the storm water collection system, longitudinal subdrains, or other suitable outlet and impermeable barriers preventing lateral migration of water such as a cutoff wall installed to a depth below the pavement structure.

Dishing in parking lots surfaced with AC is usually observed in frequently-used parking stalls (such as near the front of buildings), and occurs under the wheel footprint in these stalls. The use of higher-grade asphaltic cement, or surfacing these areas with PCC, should be considered. The dishing is exacerbated by factors such as irrigated islands or planter areas, sheet surface drainage to the front of structures, and placing the ACC directly on a compacted clay subgrade.

Rigid PCC pavements will perform better than AC in areas where short-radii turning and braking are expected (i.e. entrance/exit aprons) due to better resistance to rutting and shoving. In addition, PCC pavement will perform better in areas subject to large or sustained loads. An adequate number of longitudinal and transverse control joints should be placed in the rigid pavement in accordance with ACI and/or AASHTO requirements. Expansion (isolation) joints must be full depth and should only be used to isolate fixed objects abutting or within the paved area.

PCC pavement details for joint spacing, joint reinforcement, and joint sealing should be prepared in accordance with American Concrete Institute (ACI 330R-01 and ACI 325R.9-91). PCC pavements should be provided with mechanically reinforced joints (doweled or keyed) in accordance with ACI 330R-01.

Pavement Drainage

Pavements should be sloped to provide rapid drainage of surface water. Water allowed to pond on or adjacent to the pavements could saturate the subgrade and contribute to premature pavement deterioration. In addition, the pavement subgrade should be graded to provide positive drainage within the granular base section. Appropriate sub-drainage or connection to a suitable daylight outlet should be provided to remove water from the granular subbase.

The pavement surfacing and adjacent sidewalks should be sloped to provide rapid drainage of surface water. Water should not be allowed to pond on or adjacent to slabs, since it could saturate the subgrade and contribute to premature pavement or slab deterioration.

Pavement Maintenance

The pavement sections represent minimum recommended thicknesses and, as such, periodic maintenance should be anticipated. Therefore, preventive maintenance should be planned and provided for through an on-going pavement management program. Maintenance activities are intended to slow the rate of pavement deterioration and to preserve the pavement investment. Maintenance consists of both localized maintenance (e.g. crack and joint sealing and patching) and global maintenance (e.g. surface sealing). Preventive maintenance is usually the priority when implementing a pavement maintenance program. Additional engineering observation is recommended to determine the type and extent of a cost-effective program. Even with periodic maintenance, some movements and related cracking may still occur and repairs may be required.

Pavement performance is affected by its surroundings. In addition to providing preventive maintenance, the civil engineer should consider the following recommendations in the design and layout of pavements:

1. Final grade adjacent to paved areas should slope down from the edges at a minimum 2%.
2. Subgrade and pavement surfaces should have a minimum 2% slope to promote proper surface drainage.
3. Install below pavement drainage systems surrounding areas anticipated for frequent wetting.
4. Install joint sealant and seal cracks immediately.
5. Seal all landscaped areas in or adjacent to pavements to reduce moisture migration to subgrade soils.
6. Place compacted, low permeability backfill against the exterior side of curb and gutter.
7. Place curb, gutter and/or sidewalk directly on clay subgrade soils rather than on unbound granular base course materials.

CORROSIVITY

The table below lists the results of laboratory soluble sulfate, soluble chloride, electrical resistivity, and pH testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary						
Boring	Sample Depth (feet)	Soil Description	Soluble Sulfate (%)	Soluble Chloride (%)	Electrical Resistivity (Ω -cm)	pH
B3	1.0	Poorly Graded Sand with Silt	<0.01	<0.01	18,430	7.43

The sulfate test results indicate that the soil from boring B3 classifies as Class S0 according to Table 19.3.1.1 of ACI 318-14. This indicates that the sulfate level is negligible when considering corrosion to concrete.

The chloride test results indicate that the soils have a relatively low chloride content present. According to Table 19.3.1.1 of ACI 318-14, the soil should not be considered an external source of chloride (i.e. sea water, etc.) to concrete foundations. Consequently, chloride classes of C0 and C1 should be used where applicable. C0 is defined as, “Concrete dry or protected from moisture” and C1 is defined as, “Concrete exposed to moisture but not to an external source of chlorides”. For the amount of chlorides allowed in concrete mix designs, Table 19.3.2.1 of ACI 318-14 shall be adhered to as appropriate.

Based on the results of the sulfate content test results, ACI 318-14, Section 19.3 does not specify the type of cement or a maximum water-cement ratio for concrete for sulfate Class S0. For further information, see ACI 318-14, Section 19.3.

GENERAL COMMENTS

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Natural variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence or collaboration through this system are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly impact excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety, and cost estimating including, excavation support, and dewatering requirements/design are the responsibility of others. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

ATTACHMENTS

EXPLORATION AND TESTING PROCEDURES

Field Exploration

Number of Borings	Boring Depth (feet)	Planned Location
1	51½	Planned building area
4	16½	Planned building area
1	6½	Planned parking/driveway area

Boring Layout and Elevations: Unless otherwise noted, Terracon personnel provided the boring layout. Coordinates were obtained with a handheld GPS unit (estimated horizontal accuracy of about ±10 feet) and approximate elevations were obtained utilizing Google Earth. If elevations and a more precise boring layout are desired, we recommend borings be surveyed.

Subsurface Exploration Procedures: We advanced the borings with a track-mounted rotary drill rig using continuous hollow stem flight augers and the mud rotary drilling method for the deeper boring that extended below groundwater. We obtained four samples within the upper 10 feet and at intervals of 5 feet thereafter. In the split-barrel sampling procedure, a standard 2-inch outer diameter split-barrel sampling spoon was driven into the ground by a 140-pound automatic hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18-inch penetration is recorded as the Standard Penetration Test (SPT) resistance value. The SPT resistance values, also referred to as N-values, are indicated on the boring logs at the test depths. A 2.5-inch O.D. split-barrel Modified California sampling spoon with 2.0-inch I.D. tube lined sampler was used for sampling. Tube-lined, split-barrel sampling procedures are similar to standard split spoon sampling procedure; however, blow counts are not equivalent to the SPT blow counts. The values provided on our boring logs are uncorrected. We observed and recorded groundwater levels during drilling and sampling. For safety purposes and as required by Solano County, all borings were backfilled with neat cement grout after their completion.

The sampling depths, penetration distances, and other sampling information was recorded on the field boring logs. The samples were placed in appropriate containers and taken to our soil laboratory for testing and classification by a Geotechnical Engineer. Our exploration team prepared field boring logs as part of the drilling operations. These field logs included visual classifications of the materials encountered during drilling and our interpretation of the subsurface conditions between samples. Final boring logs were prepared from the field logs. The final boring logs represent the Geotechnical Engineer's interpretation of the field logs and include modifications based on observations and tests of the samples in our laboratory. Some relative density descriptions in the upper soils sampled may have considered overburden affects.

Laboratory Testing

The project engineer reviewed the field data and assigned laboratory tests to understand the engineering properties of the various soil strata, as necessary, for this project. Procedural standards noted below are for reference to methodology in general. In some cases, variations to methods were applied because of local practice or professional judgment. Standards noted below include reference to other, related standards. Such references are not necessarily applicable to describe the specific test performed.

- ASTM D2216 Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
- ASTM D6913 Standard Test Methods for Particle-Size Distribution of Soils Using Sieve Analysis
- ASTM D1140 Standard Test Method for Determining the Amount of Material Finer than No. 200 Sieve by Soil Washing
- ASTM D2844 Standard Test Method for Resistance Value R-Value and Expansion Pressure of Compacted Soils
- Corrosivity

The laboratory testing program included examination of soil samples by an engineer. Based on the material's texture and plasticity, we described and classified the soil samples in accordance with the Unified Soil Classification System.

SITE LOCATION AND EXPLORATION PLANS

Contents:

Site Location Plan

Exploration Plan

Note: All attachments are one page unless noted above.

SITE LOCATION

Snowtill Project ■ Rio Vista, California

July 10, 2020 ■ Terracon Project No. NA205011

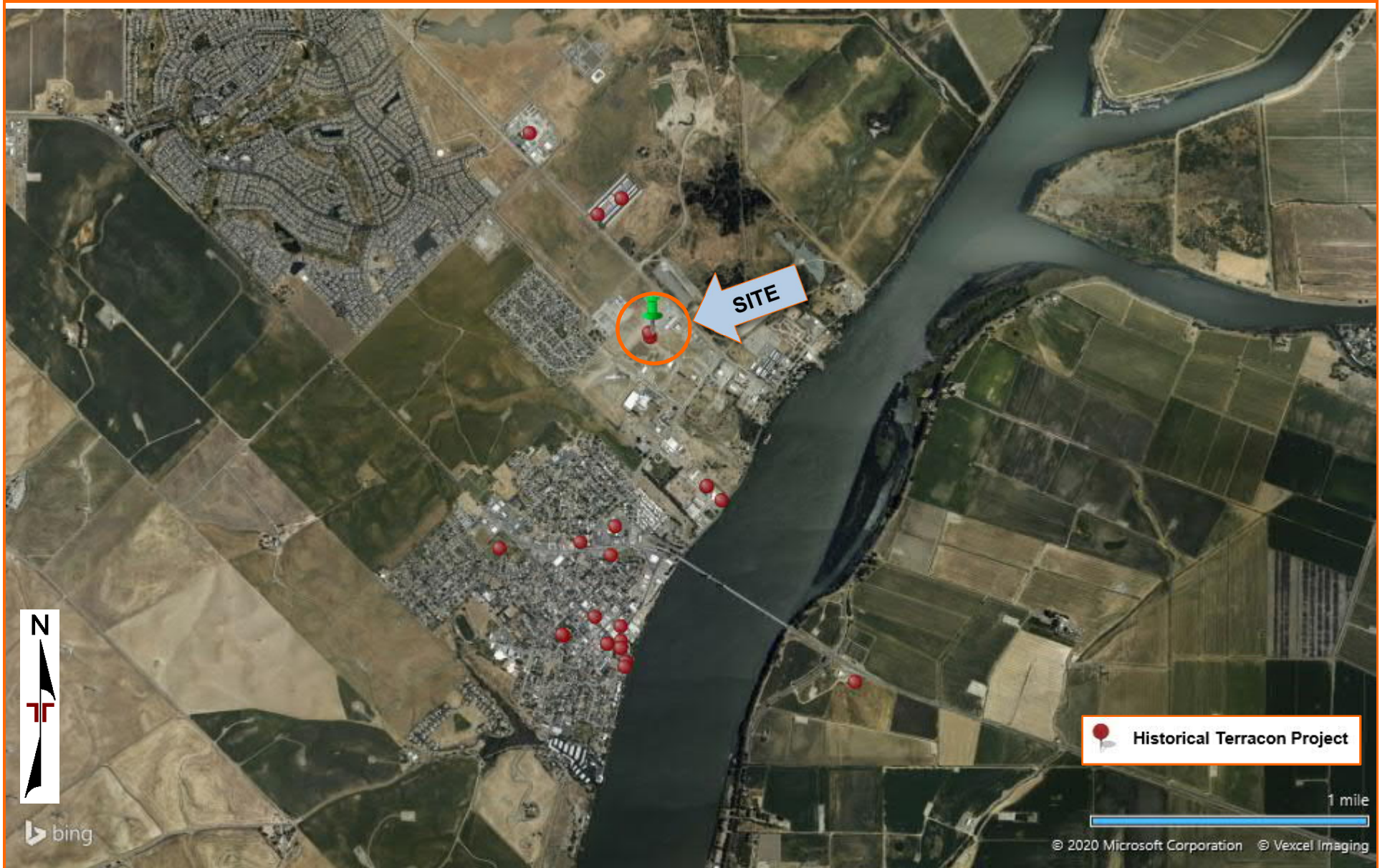


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION PLAN

Snowtill Project ■ Rio Vista, California

July 10, 2020 ■ Terracon Project No. NA205011

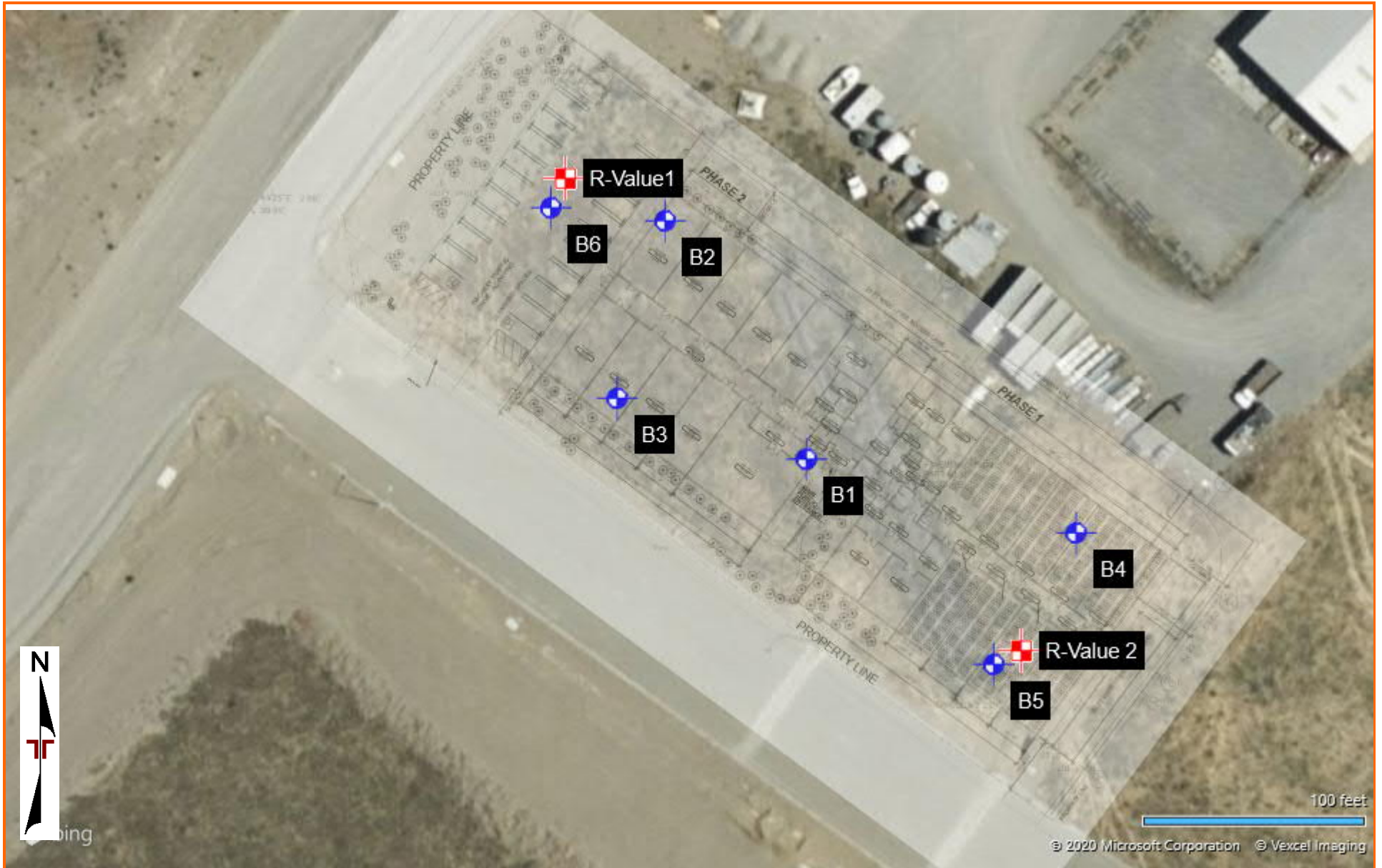


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

MAP PROVIDED BY MICROSOFT BING MAPS

EXPLORATION RESULTS

Contents:

Boring Logs (B1 through B6)

Grain Size Distribution

R-Value (2 pages)

Corrosivity

Note: All attachments are one page unless noted above.

BORING LOG NO. B1

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON_DATATEMPLATE.GDT 7/13/20

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.1717° Longitude: -121.6883° Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	
									LL-PL-PI	PERCENT FINES
	<p>POORLY GRADED SAND WITH SILT (SP-SM), fine to medium grained, brown, medium dense</p>	4.0		X	5-4-4 N=8		4.4			7
		5		X	3-2-3 N=5		4.5			
		10		X	3-3-3 N=6		5.2			
		14.0		X	2-2-4 N=6		3.8			4
		19.0		X	3-4-5 N=9		4.6			
	<p>SILTY SAND (SM), fine to medium grained, dark brown, loose</p>	15		X	3-3-3 N=6		32.8			36
	<p>SANDY SILT (ML), fine to medium grained, gray, medium stiff</p>	20		X	2-2-2 N=4	1.0 (HP)	38.5			
	<p>stiff</p>	25	▽	X	3-3-5 N=8	2.0 (HP)	43.3		NP	68

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger until 30 ft, then mud rotary

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

▽ While drilling



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011



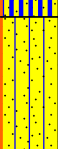
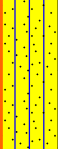
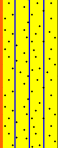
BORING LOG NO. B1

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON DATATEMPLATE.GDT 7/13/20

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.1717° Longitude: -121.6883°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
	Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)								LL-PL-PI	
	<p>SANDY SILT (ML), fine to medium grained, gray, medium stiff <i>(continued)</i></p> <p>very stiff</p>	30			3-5-7 N=12	2.5 (HP)	19.9			
	<p>SILTY SAND (SM), fine to medium grained, brown gray, medium dense</p> <p>dense</p>	35			10-11-14 N=25	2.25 (HP)	22.6			
	<p>SILTY SAND (SM), fine to medium grained, brown gray, medium dense</p> <p>dense</p>	40			9-13-16 N=29		30.3		14	
	<p>SILTY SAND (SM), fine to medium grained, brown gray, medium dense</p> <p>dense</p>	45			11-16-30 N=46		27.2			
	<p>WELL GRADED SAND WITH SILT AND GRAVEL (SW-SM), fine to coarse grained, orangish brown, dense</p>	50			9-21-18 N=39		12.8		5	
<p>Boring Terminated at 51.5 Feet</p>										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger until 30 ft, then mud rotary

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

While drilling



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011

BORING LOG NO. B2

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON DATATEMPLATE.GDT 7/13/20

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.172° Longitude: -121.6885° Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
									LL-PL-PI		
7.0	POORLY GRADED SAND WITH SILT (SP-SM) , fine to medium grained, tannish brown, medium dense	5		X	5-6-8		2.8	96			
				X	3-3-4		3.6	97			
				X	3-4-7		3.4	99			
16.5	SILTY SAND (SM) , fine grained, brown, medium dense	10		X	4-4-5		5.2	87			
				X	3-4-5		5.5	87			
				X	4-5-6		6.9	95			
	Boring Terminated at 16.5 Feet	15									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

Groundwater not encountered



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011

BORING LOG NO. B3

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON_DATATEMPLATE.GDT 7/13/20

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.1718° Longitude: -121.6886° Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
									LL-PL-PI		
9.0	POORLY GRADED SAND WITH SILT (SP-SM) , fine grained, orangish brown, medium dense	4-5-6			4-5-6		2.7	92			
		3-4-4			3-4-4		2.4	95			
		3-5-6			3-5-6		2.4	90			
		3-3-5			3-3-5		3.3	94			
14.0	SILTY SAND (SM) , fine grained, brown gray, medium dense	3-4-5			3-4-5		6.9	96			
		4-5-6			4-5-6		2.2	86			
16.5	POORLY GRADED SAND WITH SILT (SP-SM) , fine grained, brown, medium dense										
Boring Terminated at 16.5 Feet											

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

Groundwater not encountered



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011

BORING LOG NO. B4

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON DATATEMPLATE.GDT 7/13/20

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.1716° Longitude: -121.6879° Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	DEPTH									
2.0	SILTY SAND (SM) , fine grained, brown gray, loose	37+/-		X	2-2-5		2.6	94		10
9.0	POORLY GRADED SAND WITH SILT (SP-SM) , fine grained, gray, loose			X	3-4-3		3.1	90		
16.5	SANDY SILT (ML) , fine grained, brown gray, loose	30+/-		X	3-2-2		3.8	93		
22.5	SANDY SILT (ML) , fine grained, brown gray, loose	30+/-		X	3-3-4		3.9	89		
22.5	SANDY SILT (ML) , fine grained, brown gray, loose	30+/-		X	3-4-6		6.5	91		
22.5	SANDY SILT (ML) , fine grained, brown gray, loose	30+/-		X	3-4-4		13.5	90		
Boring Terminated at 16.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

Groundwater not encountered



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011

BORING LOG NO. B5

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.1715° Longitude: -121.688°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	PERCENT FINES
	DEPTH								ELEVATION (Ft.)	
	Approximate Surface Elev.: 39 (Ft.) +/-									
	POORLY GRADED SAND WITH SILT (SP-SM) , fine to medium grained, orangish tan, loose to medium dense				5-6-6		4.1	99		
			5			3-3-5		4.8	96	
						3-4-4		5.5	90	
						3-2-4		5.0	93	
		10			3-3-5		5.4	88		
	13.0	26+/-								
	SANDY SILT (ML) , fine grained, brown, medium stiff									
		15			2-3-5		12.7	94		
	16.5	22.5+/-								
	Boring Terminated at 16.5 Feet									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (if any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

Groundwater not encountered



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

Driller: C. Nix

Project No.: NA205011

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON_DATATEMPLATE.GDT 7/13/20

BORING LOG NO. B6

PROJECT: Snowtill Project

CLIENT: JNL Capital LLC
Oakland, CA

SITE: Industrial Court
Rio Vista, CA

GRAPHIC LOG	LOCATION See Exploration Plan Latitude: 38.172° Longitude: -121.6887° Approximate Surface Elev.: 39 (Ft.) +/- ELEVATION (Ft.)	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	FIELD TEST RESULTS	LABORATORY HP (tsf)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	DEPTH									
	<p>POORLY GRADED SAND WITH SILT (SP-SM), fine to medium grained, tannish brown, loose to medium dense</p>	5		X	2-6-6		2.2	100		
				X	3-3-4		2.4	89		
		6.5	32.5+/-		X	3-3-4		1.9	103	
<p>Boring Terminated at 6.5 Feet</p>										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
6" hollow stem auger

See [Exploration and Testing Procedures](#) for a description of field and laboratory procedures used and additional data (If any).

Notes:

Abandonment Method:
Boring backfilled with cement grout upon completion.

See [Supporting Information](#) for explanation of symbols and abbreviations.

Elevation estimated from Google Earth

WATER LEVEL OBSERVATIONS

Groundwater not encountered



Boring Started: 06-01-2020

Boring Completed: 06-01-2020

Drill Rig: D-90

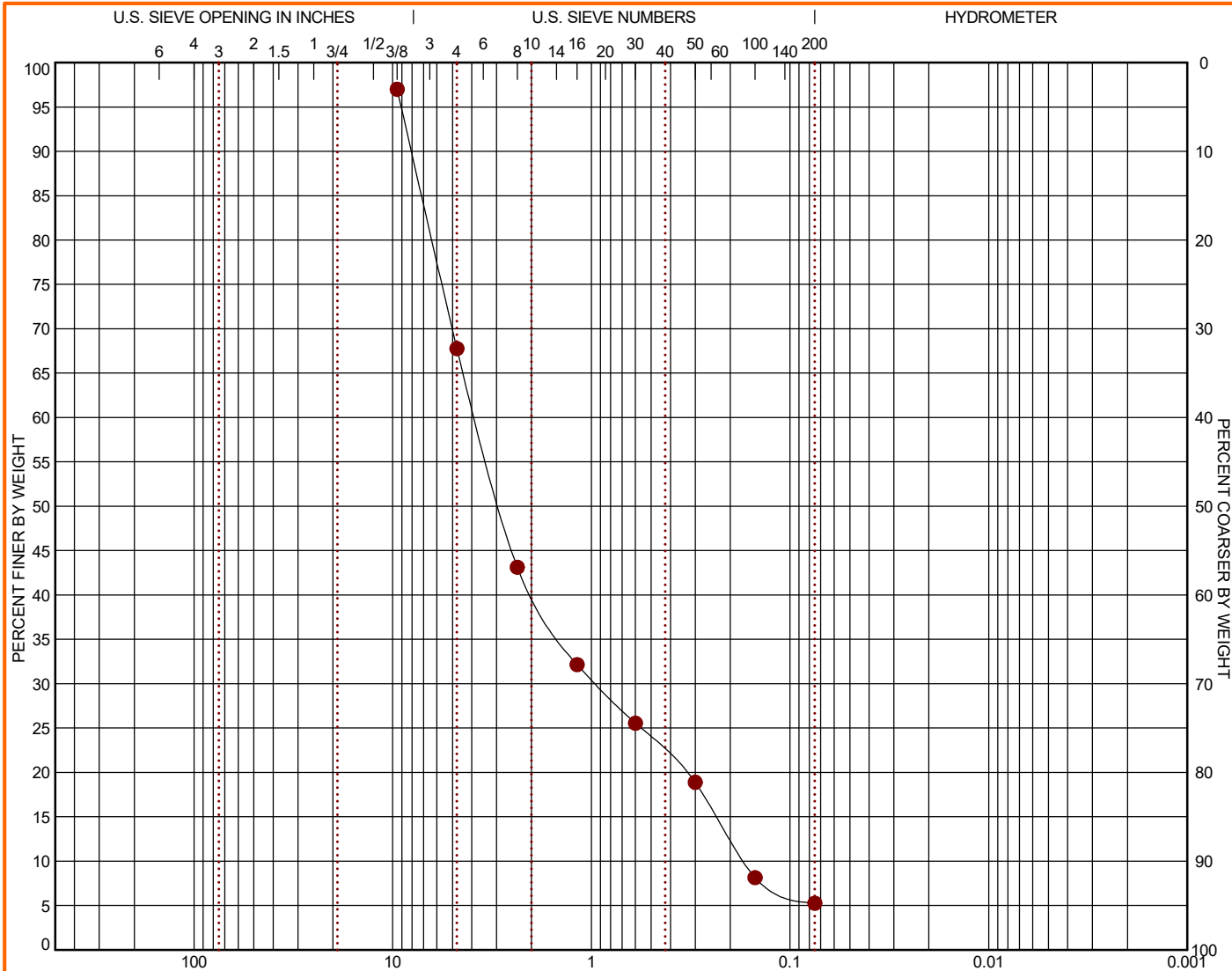
Driller: C. Nix

Project No.: NA205011

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GEO SMART LOG-NO WELL NA205011 SNOWTILL PROJECT.GPJ TERRACON_DATATEMPLATE.GDT 7/13/20

GRAIN SIZE DISTRIBUTION

ASTM D422 / ASTM C136



COBBLES	GRAVEL		SAND			SILT OR CLAY			
	coarse	fine	coarse	medium	fine				

BORING ID	DEPTH	% COBBLES	% GRAVEL	% SAND	% SILT	% FINES	% CLAY	USCS
● B1	50 - 51.5		29.2	62.5		5.3		SW-SM

GRAIN SIZE	
D ₆₀	3.81
D ₃₀	0.946
D ₁₀	0.169
COEFFICIENTS	
C _c	1.39
C _u	22.54

Sieve	% Finer	Sieve	% Finer	Sieve	% Finer
3/8"	96.99				
#4	67.76				
#8	43.12				
#16	32.15				
#30	25.55				
#50	18.89				
#100	8.15				
#200	5.26				

SOIL DESCRIPTION	
●	WELL-GRADED SAND with SILT and GRAVEL (SW-SM)
REMARKS	
●	

LABORATORY TESTS ARE NOT VALID IF SEPARATED FROM ORIGINAL REPORT. GRAIN SIZE: USCS 1 NA205011 SNOWTILL PROJECT.GPJ TERRACON_DATATEMPLATE.GDT 7/9/20

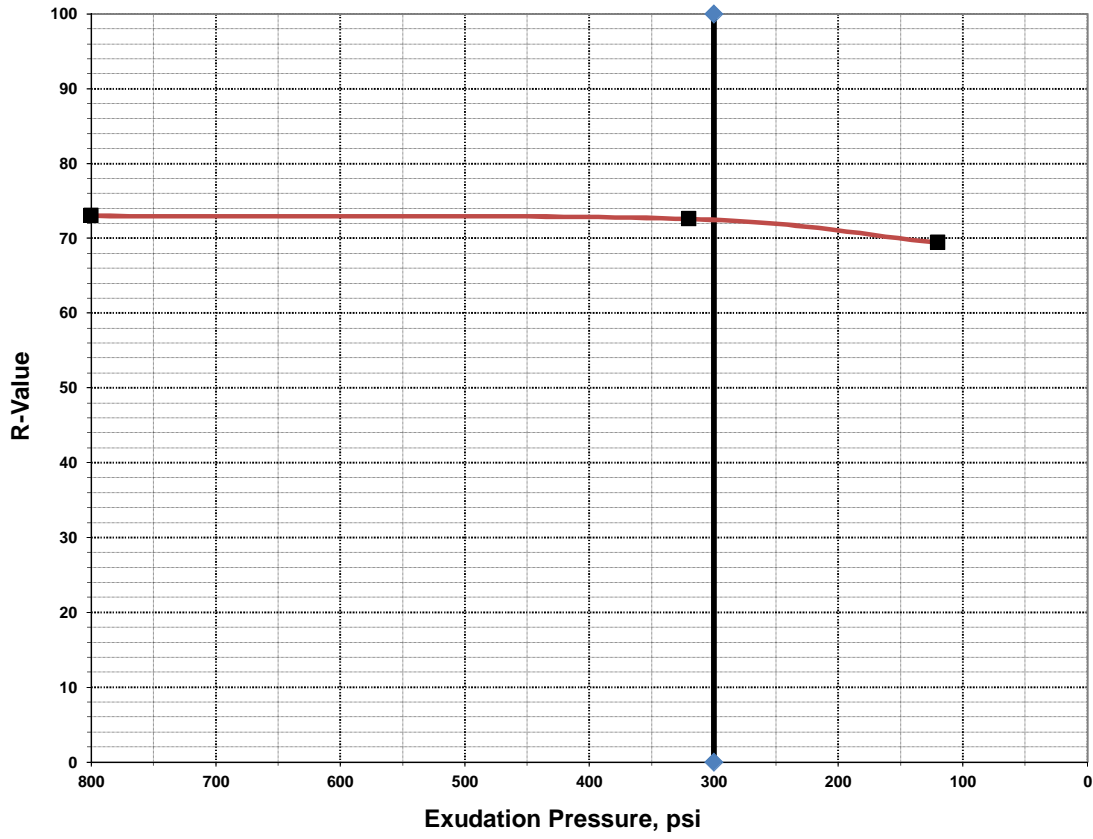
PROJECT: Snowtill Project

SITE: Industrial Court
Rio Vista, CA



PROJECT NUMBER: NA205011

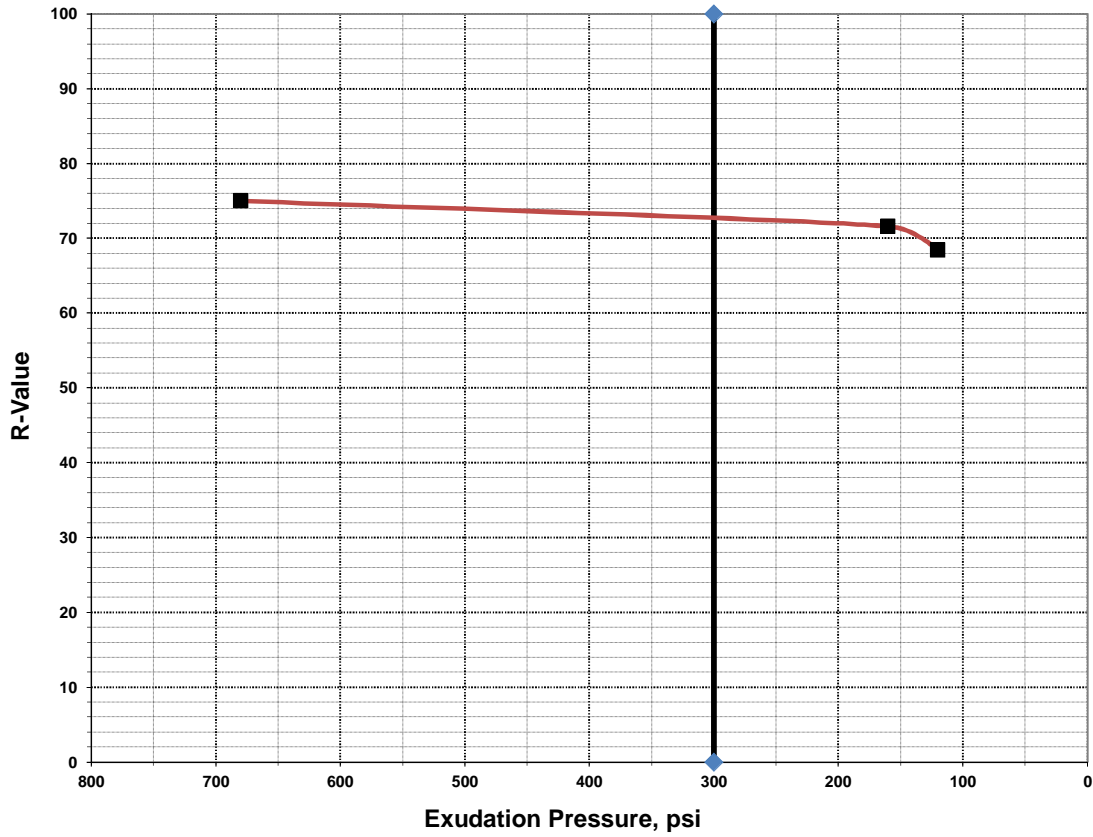
CLIENT: JNL Capital LLC
Oakland, CA



Specimen Identification	Compaction Pressure (psi)	R-Value at 300 psi
B5	216.7	72

R-Value Test

Client: JNL Capital, LLC
Project: Snowtill Project
Site: Industrial Court, Rio Vista, CA
Project No.: NA205011



Specimen Identification	Compaction Pressure (psi)	R-Value at 300 psi
B6	206.7	73

R-Value Test

Client: JNL Capital, LLC
Project: Snowtill Project
Site: Industrial Court, Rio Vista, CA
Project No.: NA205011

Client
JNL Capital LLC
Oakland, CA

Project
Snowtill Project

Sample Submitted By: Terracon (NA)

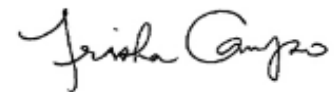
Date Received: 6/5/2020

Lab No.: 20-0619

Results of Corrosion Analysis

Sample Number	B3-1
Sample Location	B3
Sample Depth (ft.)	1.0
pH Analysis, ASTM G 51	7.43
Water Soluble Sulfate (SO ₄), ASTM C 1580 (percent %)	<0.01
Sulfides, AWWA 4500-S D, (mg/kg)	Nil
Chlorides, ASTM D 512, (percent %)	<0.01
Red-Ox, ASTM G 200, (mV)	+687
Total Salts, AWWA 2540, (mg/kg)	142
Resistivity, ASTM G 57, (ohm-cm)	18430

Analyzed By:



Trisha Campo
Chemist


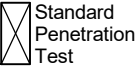




SUPPORTING INFORMATION

Contents:

General Notes

Unified Soil Classification System

Note: All attachments are one page unless noted above.

SAMPLING	WATER LEVEL	FIELD TESTS
 Modified California Ring Sampler  Standard Penetration Test	 Water Initially Encountered  Water Level After a Specified Period of Time  Water Level After a Specified Period of Time  Cave In Encountered Water levels indicated on the soil boring logs are the levels measured in the borehole at the times indicated. Groundwater level variations will occur over time. In low permeability soils, accurate determination of groundwater levels is not possible with short term water level observations.	N Standard Penetration Test Resistance (Blows/Ft.) (HP) Hand Penetrometer (T) Torvane (DCP) Dynamic Cone Penetrometer UC Unconfined Compressive Strength (PID) Photo-Ionization Detector (OVA) Organic Vapor Analyzer

DESCRIPTIVE SOIL CLASSIFICATION

Soil classification as noted on the soil boring logs is based Unified Soil Classification System. Where sufficient laboratory data exist to classify the soils consistent with ASTM D2487 "Classification of Soils for Engineering Purposes" this procedure is used. ASTM D2488 "Description and Identification of Soils (Visual-Manual Procedure)" is also used to classify the soils, particularly where insufficient laboratory data exist to classify the soils in accordance with ASTM D2487. In addition to USCS classification, coarse grained soils are classified on the basis of their in-place relative density, and fine-grained soils are classified on the basis of their consistency. See "Strength Terms" table below for details. The ASTM standards noted above are for reference to methodology in general. In some cases, variations to methods are applied as a result of local practice or professional judgment.

LOCATION AND ELEVATION NOTES

Exploration point locations as shown on the Exploration Plan and as noted on the soil boring logs in the form of Latitude and Longitude are approximate. See [Exploration and Testing Procedures](#) in the report for the methods used to locate the exploration points for this project. Surface elevation data annotated with +/- indicates that no actual topographical survey was conducted to confirm the surface elevation. Instead, the surface elevation was approximately determined from topographic maps of the area.

STRENGTH TERMS						
RELATIVE DENSITY OF COARSE-GRAINED SOILS <small>(More than 50% retained on No. 200 sieve.) Density determined by Standard Penetration Resistance</small>			CONSISTENCY OF FINE-GRAINED SOILS <small>(50% or more passing the No. 200 sieve.) Consistency determined by laboratory shear strength testing, field visual-manual procedures or standard penetration resistance</small>			
Descriptive Term (Density)	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.	Descriptive Term (Consistency)	Unconfined Compressive Strength Qu, (tsf)	Standard Penetration or N-Value Blows/Ft.	Ring Sampler Blows/Ft.
Very Loose	0 - 3	0 - 6	Very Soft	less than 0.25	0 - 1	< 3
Loose	4 - 9	7 - 18	Soft	0.25 to 0.50	2 - 4	3 - 4
Medium Dense	10 - 29	19 - 58	Medium Stiff	0.50 to 1.00	4 - 8	5 - 9
Dense	30 - 50	59 - 98	Stiff	1.00 to 2.00	8 - 15	10 - 18
Very Dense	> 50	> 99	Very Stiff	2.00 to 4.00	15 - 30	19 - 42
			Hard	> 4.00	> 30	> 42

RELEVANCE OF SOIL BORING LOG

The soil boring logs contained within this document are intended for application to the project as described in this document. Use of these soil boring logs for any other purpose may not be appropriate.

Criteria for Assigning Group Symbols and Group Names Using Laboratory Tests ^A				Soil Classification			
				Group Symbol	Group Name ^B		
Coarse-Grained Soils: More than 50% retained on No. 200 sieve	Gravels: More than 50% of coarse fraction retained on No. 4 sieve	Clean Gravels: Less than 5% fines ^C	$Cu \geq 4$ and $1 \leq Cc \leq 3$ ^E	GW	Well-graded gravel ^F		
			$Cu < 4$ and/or $[Cc < 1$ or $Cc > 3.0]$ ^E	GP	Poorly graded gravel ^F		
		Gravels with Fines: More than 12% fines ^C	Fines classify as ML or MH	GM	Silty gravel ^{F, G, H}		
			Fines classify as CL or CH	GC	Clayey gravel ^{F, G, H}		
	Sands: 50% or more of coarse fraction passes No. 4 sieve	Clean Sands: Less than 5% fines ^D	$Cu \geq 6$ and $1 \leq Cc \leq 3$ ^E	SW	Well-graded sand ^I		
			$Cu < 6$ and/or $[Cc < 1$ or $Cc > 3.0]$ ^E	SP	Poorly graded sand ^I		
		Sands with Fines: More than 12% fines ^D	Fines classify as ML or MH	SM	Silty sand ^{G, H, I}		
			Fines classify as CL or CH	SC	Clayey sand ^{G, H, I}		
Fine-Grained Soils: 50% or more passes the No. 200 sieve	Silts and Clays: Liquid limit less than 50	Inorganic:	$PI > 7$ and plots on or above "A" line	CL	Lean clay ^{K, L, M}		
			$PI < 4$ or plots below "A" line ^J	ML	Silt ^{K, L, M}		
		Organic:	Liquid limit - oven dried	< 0.75	OL	Organic clay ^{K, L, M, N}	
			Liquid limit - not dried			Organic silt ^{K, L, M, O}	
	Silts and Clays: Liquid limit 50 or more	Inorganic:	PI plots on or above "A" line	CH	Fat clay ^{K, L, M}		
			PI plots below "A" line	MH	Elastic Silt ^{K, L, M}		
		Organic:	Liquid limit - oven dried	< 0.75	OH	Organic clay ^{K, L, M, P}	
			Liquid limit - not dried			Organic silt ^{K, L, M, Q}	
		Highly organic soils:	Primarily organic matter, dark in color, and organic odor			PT	Peat

^A Based on the material passing the 3-inch (75-mm) sieve.

^B If field sample contained cobbles or boulders, or both, add "with cobbles or boulders, or both" to group name.

^C Gravels with 5 to 12% fines require dual symbols: GW-GM well-graded gravel with silt, GW-GC well-graded gravel with clay, GP-GM poorly graded gravel with silt, GP-GC poorly graded gravel with clay.

^D Sands with 5 to 12% fines require dual symbols: SW-SM well-graded sand with silt, SW-SC well-graded sand with clay, SP-SM poorly graded sand with silt, SP-SC poorly graded sand with clay.

$$E \quad Cu = D_{60}/D_{10} \quad Cc = \frac{(D_{30})^2}{D_{10} \times D_{60}}$$

^F If soil contains $\geq 15\%$ sand, add "with sand" to group name.

^G If fines classify as CL-ML, use dual symbol GC-GM, or SC-SM.

^H If fines are organic, add "with organic fines" to group name.

^I If soil contains $\geq 15\%$ gravel, add "with gravel" to group name.

^J If Atterberg limits plot in shaded area, soil is a CL-ML, silty clay.

^K If soil contains 15 to 29% plus No. 200, add "with sand" or "with gravel," whichever is predominant.

^L If soil contains $\geq 30\%$ plus No. 200 predominantly sand, add "sandy" to group name.

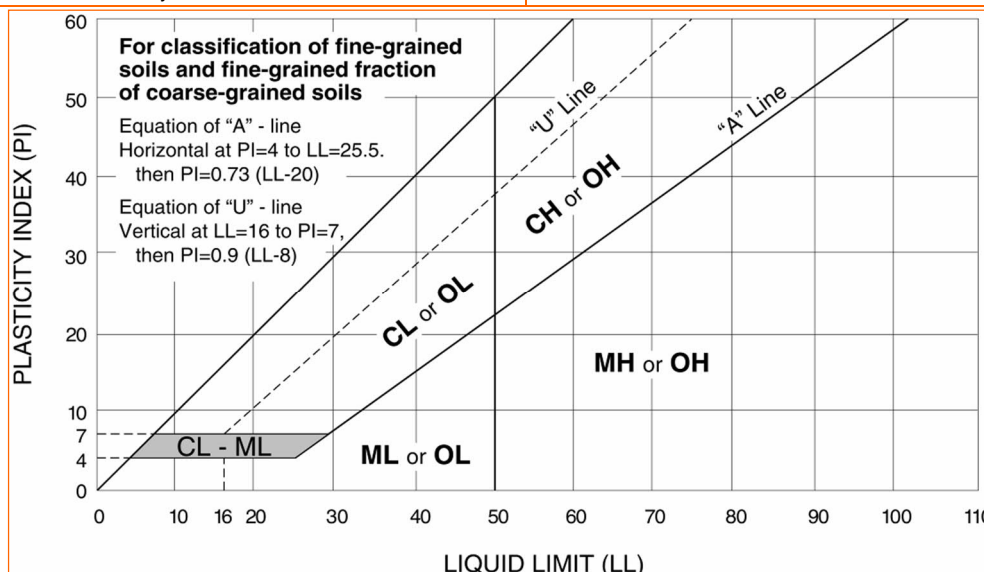
^M If soil contains $\geq 30\%$ plus No. 200, predominantly gravel, add "gravelly" to group name.

^N $PI \geq 4$ and plots on or above "A" line.

^O $PI < 4$ or plots below "A" line.

^P PI plots on or above "A" line.

^Q PI plots below "A" line.



Appendix D

Phase I Environmental Site Assessment

Phase I Environmental Site Assessment

Snowtill

40 Richard Brann Drive

Rio Vista, Solano County, California

March 12, 2020

Terracon Project No. NA207008



Prepared for:

JNL Capital LLC
Oakland, California

Prepared by:

Terracon Consultants, Inc.
Lodi, California

terracon.com

Terracon

Environmental



Facilities



Geotechnical



Materials



March 12, 2020

JNL Capital LLC
675 Hegenberger Road
Suite 220 A
Oakland, CA 94621

Attn: Mr. Nate Landau
P: (718) 664-7339
E: nate.mothernotill@gmail.com

Re: Phase I Environmental Site Assessment
Snowtill
40 Richard Brann Drive
Rio Vista, Solano County, California
Terracon Project No. NA207008

Dear Mr. Landau:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Phase I Environmental Site Assessment (ESA) report for the above-referenced site. This assessment was performed in accordance with Terracon Proposal No. PNA207008 dated January 31, 2020 and executed on February 6, 2020.

We appreciate the opportunity to be of service to you on this project. In addition to Phase I services, our professionals provide geotechnical, environmental, construction materials, and facilities services on a wide variety of projects locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact us.

Sincerely,
Terracon Consultants, Inc.

Tamara K. Woods
Staff Scientist

Todd G. McFarland, PG, CHG
Senior Geologist

Kristin Stout
Senior Scientist

Attachments

Terracon Consultants Inc. 902 Industrial Way Lodi, CA 95240-3106

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Environmental

Facilities

Geotechnical

Materials

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APPENDIX D	Environmental Database Information
APPENDIX E	Credentials
APPENDIX F	Description of Terms and Acronyms

EXECUTIVE SUMMARY

This Phase I Environmental Site Assessment (ESA) was performed in accordance with Terracon Proposal No. PNA207008 dated January 31, 2020 and executed on February 6, 2020, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The ESA was conducted under the supervision or responsible charge of Kristin Stout, Environmental Professional. Tamara K. Woods performed the site reconnaissance on February 12, 2020.

Findings and Opinions

A summary of findings is provided below. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein.

Site Description and Use

The site is an approximately 1.26 acre tract of vacant land located at 40 Richard Brann Drive, Rio Vista, Solano County, California, Assessor Parcel Number (APN) 0178-230-180. During the reconnaissance, the site was unoccupied and there were no site operations. The site is proposed to be developed with an indoor cannabis grow operation.

Historical Information

Based on a review of the historical information, the site and adjoining properties consisted of undeveloped and/or vacant land from as early as 1910 and were part of the original Rio Vista Municipal Airport from the 1950s through the mid-1990s when the airport closed. Prior to 1950, the site consisted primarily of vacant land and was developed with portions of an airport runway by the mid-to late 1950s which is still present today.

The adjoining northeastern property consisted primarily of vacant land with sections of the runway through 2006 when the existing buildings were developed. The adjoining southeastern property consisted primarily of vacant land with sections of the runway through 2006 when the existing buildings were developed. The adjoining southwestern property consisted of vacant land through 2006 when a portion of the existing road was developed. The adjoining northwestern property consisted of undeveloped land through 2016.

Records Review

Selected federal and state environmental regulatory databases as well as responses from state and local regulatory agencies were reviewed. The site address of 40 Richard Brann Drive was not identified on the regulatory database. The site and nearby facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

Site Reconnaissance

During the site reconnaissance, remnants of an asphalt runway, a minor amount of wood and metal fence posts, two abandoned recreational vehicles (RVs), PVC pipe, and sheet metal were observed. Based on site observations, RECs were not identified.

Adjoining Properties

Properties to the adjoining northeast consisted of Senvion Wind Energy Solutions (1107 Airport Road) and Rio Vista Food Pantry / Rio Vista Muffler (1105 Airport Road). An offsite material storage area was observed along the adjoining northeastern site boundary. Materials included metal parts, pipe, vehicles, three 55 gallon metal drums, three 1,200+ gallon aboveground storage tanks (ASTs), and three 2,000+ gallon ASTs. Staining, odors, and/or evidence of release was not observed from the site perimeter. Properties to the adjoining northeast consisted of vacant land (30 Richard Brann Drive). Richard Brann Drive abuts the site to the southwest followed by vacant land (41 & 51 Richard Brann Drive) and a new building under construction (31 Richard Brann Drive). Norman Richardson Drive abuts the site to the northwest followed by vacant land (APN 0178-230-025). RECs were not observed with the adjoining properties.

Significant Data Gaps

No significant data gaps were identified.

Conclusions

We have performed a Phase I ESA consistent with the procedures included in ASTM Practice E 1527-13 at Industrial Court, Rio Vista, Solano County, California, the site. Recognized Environmental Conditions (RECs) or Controlled RECs (CREC) were not identified in connection with the site.

Recommendations

Based on the scope of services, limitations, and conclusions of this assessment, Terracon did not identify RECs or CRECs. As such, no additional investigation is warranted at this time.

1.0 INTRODUCTION

1.1 Site Description

Site Name	Snowtill
Site Location/Address	40 Richard Brann Drive, Rio Vista, Solano County, California Assessor Parcel Number (APN) 0178-230-180
Land Area	1.50 acres
Site Improvements	None
Anticipated Future Site Use	Indoor cannabis cultivation
Purpose of the ESA	Acquiring the site

The location of the site is depicted on Exhibit 1 of Appendix A, which was reproduced from a portion of the USGS 7.5-minute series topographic map. The site and adjoining properties are depicted on the Site Diagram, which is included as Exhibit 2 of Appendix A. Acronyms and terms used in this report are described in Appendix F.

1.2 Scope of Services

This Phase I ESA was performed in accordance with Terracon Proposal No. PNA207008 dated January 31, 2020 and executed on February 6, 2020, and was conducted consistent with the procedures included in ASTM E1527-13, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. The purpose of this ESA was to assist the client in developing information to identify RECs in connection with the site as reflected by the scope of this report. This purpose was undertaken through user-provided information, a regulatory database review, historical and physical records review, interviews, including local government inquiries, as applicable, and a visual noninvasive reconnaissance of the site and adjoining properties. Limitations, ASTM deviations, and significant data gaps (if identified) are noted in the applicable sections of the report.

ASTM E1527-13 contains a new definition of "migrate/migration," which refers to "the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface." By including this explicit reference to migration in ASTM E1527-13, the Standard clarifies that the potential for vapor migration should be addressed as part of a Phase I ESA. This Phase I ESA has considered vapor migration in evaluation of RECs associated with the site.

1.3 Standard of Care

This ESA was performed in accordance with generally accepted practices of this profession, undertaken in similar studies at the same time and in the same geographical area. We have endeavored to meet this standard of care, but may be limited by conditions encountered during performance, a client-driven scope of work, or inability to review information not received by the report date. Where appropriate, these limitations are discussed in the text of the report, and an evaluation of their significance with respect to our findings has been conducted.

Phase I ESAs, such as the one performed at this site, are of limited scope, are noninvasive, and cannot eliminate the potential that hazardous, toxic, or petroleum substances are present or have been released at the site beyond what is identified by the limited scope of this ESA. In conducting the limited scope of services described herein, certain sources of information and public records were not reviewed. It should be recognized that environmental concerns may be documented in public records that were not reviewed. No ESA can wholly eliminate uncertainty regarding the potential for RECs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for RECs. No warranties, express or implied, are intended or made. The limitations herein must be considered when the user of this report formulates opinions as to risks associated with the site or otherwise uses the report for any other purpose. These risks may be further evaluated – but not eliminated – through additional research or assessment. We will, upon request, advise you of additional research or assessment options that may be available and associated costs.

1.4 Additional Scope Limitations, ASTM Deviations and Data Gaps

Based upon the agreed-on scope of services, this ESA did not include subsurface or other invasive assessments, vapor intrusion assessments or indoor air quality assessments (i.e. evaluation of the presence of vapors within a building structure), business environmental risk evaluations, or other services not particularly identified and discussed herein. Credentials of the company (Statement of Qualifications) have not been included in this report but are available upon request. Pertinent documents are referred to in the text of this report, and a separate reference section has not been included. Reasonable attempts were made to obtain information within the scope and time constraints set forth by the client; however, in some instances, information requested is not, or was not, received by the issuance date of the report. Information obtained for this ESA was received from several sources that we believe to be reliable; nonetheless, the authenticity or reliability of these sources cannot and is not warranted hereunder. This ESA was further limited by the following:

- n Terracon submitted an owner questionnaire to the City of Rio Vista; however, a response had not been received at the issuance of this report. Based on the review of historical information and other agency responses, the absence of a response regarding the owner questionnaire does not represent a significant data gap in connection with the site.

- n At the issuance of this report, a response had not been received from the Rio Vista Fire Department. Based on the historical information and other agency responses, the absence of a response from the fire department does not represent a significant data gap in connection with the site.

An evaluation of the significance of limitations and missing information with respect to our findings has been conducted, and where appropriate, significant data gaps are identified and discussed in the text of the report. However, it should be recognized that an evaluation of significant data gaps is based on the information available at the time of report issuance, and an evaluation of information received after the report issuance date may result in an alteration of our conclusions, recommendations, or opinions. We have no obligation to provide information obtained or discovered by us after the issuance date of the report, or to perform any additional services, regardless of whether the information would affect any conclusions, recommendations, or opinions in the report. This disclaimer specifically applies to any information that has not been provided by the client.

This report represents our service to you as of the report date and constitutes our final document; its text may not be altered after final issuance. Findings in this report are based upon the site's current utilization, information derived from the most recent reconnaissance and from other activities described herein; such information is subject to change. Certain indicators of the presence of hazardous substances or petroleum products may have been latent, inaccessible, unobservable, or not present during the most recent reconnaissance and may subsequently become observable (such as after site renovation or development). Further, these services are not to be construed as legal interpretation or advice.

1.5 Reliance

This ESA report is prepared for the exclusive use and reliance of JNL Capital LLC. Use or reliance by any other party is prohibited without the written authorization of JNL Capital LLC and Terracon Consultants, Inc. (Terracon).

Reliance on the ESA by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, ESA report, and Terracon's Agreement for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

Continued viability of this report is subject to ASTM E1527-13 Sections 4.6 and 4.8. If the ESA will be used by a different user (third party) than the user for whom the ESA was originally prepared, the third party must also satisfy the user's responsibilities in Section 6 of ASTM E1527-13.

1.6 Client Provided Information

Prior to the site visit, Mr. Nate Landau, client’s representative, was asked to provide the following user questionnaire information as described in ASTM E1527-13 Section 6.

Client Questionnaire Responses

Client Questionnaire Item	Client Did Not Respond	Client’s Response		
		Yes	No	Unknown
Specialized Knowledge or Experience that is material to a REC in connection with the site.			X	
Actual Knowledge of Environmental Liens or Activity Use Limitations (AULs) that may encumber the site.				X
Actual Knowledge of a Lower Purchase Price because contamination is known or believed to be present at the site.			X	
Commonly Known or Reasonably Ascertainable Information that is material to a REC in connection with the site.				X
Obvious Indicators of Contamination at the site.			X	

In response to “Comments or Explanations”, Mr. Landau indicated the site is being purchased from the City of Rio Vista. Mr. Landau provided an aerial image depicting the approximate location of the proposed building and indicated the site is proposed to be developed with a cannabis cultivation facility. Mr. Landau additionally provided a preliminary title report. Refer to Sections 3.3, 3.4 and 3.5 for further discussion. Terracon’s consideration of the client provided information did not identify RECs. A copy of the questionnaire is included in Appendix C.

2.0 PHYSICAL SETTING

Physical Setting Information		Source
Topography		
Site Elevation	Approximately 50 feet above sea level	USGS Topographic Map, Rio Vista Quadrangle dated 1993 (Appendix A)
Topographic Gradient	Sloping towards the northeast	
Closest Surface Water	An unnamed retention pond is located approximately 1,300 feet to the northeast, and the Sacramento River is located approximately 2,500 feet southeast of the site.	
Soil Characteristics		

Physical Setting Information		Source
Soil Type	Tujunga fine sand - Excessively drained soils with 0 to 2 percent slopes. Parent material is mixed dredged alluvium.	Solano County, California USDA-NRCS Web Soil Survey issued February 2020
Description	Soils within 50 feet east-southeast of the site consisted of light brown, fine to medium grained sand with silt between 0 to 10.5 feet and brown, fine to coarse grained silty sand with trace clay between 10.5 and 11.5 feet below grade surface (bgs).	Solano County Department of Resource Management, Stevens Ferrone & Bailey Engineering Company Inc., Exploratory Boring Log, Parcel 13, Rio Vista, CA dated August 2018 Boring No. SFB-4
Geology/Hydrogeology		
Formation	Quaternary deposits (Qoa)	Geologic Map of California (2010)
Description	Pleistocene. Older alluvium, lake, playa and terrace deposits.	
Estimated Depth to First Occurrence of Groundwater	Approximately 20 feet bgs, as measured in a soil boring mapped approximately 200 feet east-southeast of the site.	Solano County Department of Resource Management, Stevens Ferrone & Bailey Engineering Company Inc., Exploratory Boring Log, Parcel 13, Rio Vista, CA dated August 2018 Boring No. SFB-1.
*Hydrogeologic Gradient	Not known - may be inferred to be parallel to topographic gradient (primarily to the northeast).	

* The groundwater flow direction and the depth to shallow, unconfined groundwater, if present, would likely vary depending upon seasonal variations in rainfall and other hydrogeological features. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

3.0 HISTORICAL USE INFORMATION

Terracon reviewed the following historical sources to develop a history of the previous uses of the site and surrounding area, in order to help identify RECs associated with past uses. Copies of selected historical documents are included in Appendix C.

3.1 Historical Topographic Maps, Aerial Photographs, Sanborn Maps

Readily available historical USGS topographic maps, selected historical aerial photographs (at approximately 10 to 15 year intervals) and historical fire insurance maps produced by the Sanborn Map Company were reviewed to evaluate land development and obtain information concerning the history of development on and near the site. Reviewed historical topographic maps, aerial photographs and Sanborn maps are summarized below.

Historical fire insurance maps produced by the Sanborn Map Company were requested from EDR to evaluate past uses and relevant characteristics of the site and surrounding properties. Based upon inquiries to the above-listed Sanborn provider, Sanborn maps were not available for the site.

- n Topographic map:
 - o Rio Vista, California, published in **1910** (1:31,680)
 - o Rio Vista, California, published in **1952** (1:62,500)
 - o Rio Vista, California, published in **1953, 1968, 1978, 1993, 2012** (1:24,000)
- n Aerial photograph:
 - o USDA, **1937, 1952, 1957, 1972, 1984**, 1"=500'
 - o USGS, **1968**, 1"=500'
 - o USGS/DOQQ, **1993**, 1"=500'
 - o USDA/NAIP, **2009, 2012, 2016**, 1"=500'

Historical Maps and Aerial Photographs

Direction	Description
Site	Undeveloped and/or vacant land (1910-1953); developed with an airport landing strip/runway, airport later identified as the Rio Vista Airport (1957-1993); vacant land with remnants of the former landing strip (2006-2016).
Northeast	Undeveloped and/or vacant land (1910-1953); developed with an airport runway followed by vacant land (1957-1993); portions of the runway were removed, developed with the existing buildings (2006-2016).
Southeast	Undeveloped and/or vacant land (1910-1953); developed with an airport runway and vacant land (1957-1993); runway removed, land remains vacant (2006-2016).
Southwest	Undeveloped and/or vacant land (1910-1957); developed with a road, followed by vacant land (2006-2016).
Northwest	Undeveloped and/or vacant land (1910-2016).

The topographic maps and aerial photographs indicate the site was historically part of the original Rio Vista Municipal Airport and consisted primarily of vacant land prior to the early 1950s when the airport was developed. Refer to Sections 4.2 and 4.3 for further discussion regarding the Rio Vista Municipal Airport.

3.2 Historical City Directories

The Haines Criss-Cross Directory and EDR digital archive city directories used in this study were made available through EDR (selected years reviewed: 1972 to 2014) and were reviewed at approximate five-year intervals, if readily available. Street listings were not available prior to 1977. The current street address for the site was identified as 40 Richard Brann Drive.

Historical City Directories

Direction	Description
Site	40 Richard Brann Drive – No listings (1977-2014).
Northeast	<u>1105 Airport Road</u> – No listings (1977-1995); Cat Rental Store Holt CA, Hill Transfer Service, <u><i>Rio Vista Muffler Hitch & Welding</i></u> , Healthy Partnerships Inc., D&S Press, <u><i>Instrap</i></u> Inc., Nelson Drilling Tools LLC, and/or <u><i>Rio Vista Muffler</i></u> (2014). 1107 Airport Road – No listings (1977-2014); Castle Minerals (2010); no listings (2014).
Southeast	30 Richard Brann Drive – No listings (1977-2014).
Southwest	41 Richard Brann Drive – No listings (1977-2014). 51 Richard Brann Drive – No listings (1977-2014).
Northwest	980 Norman Richardson Drive – No listings (1977-2014).

Underlined and italicized addresses and/or businesses are identified on the regulatory database report. Refer to Section 4.1 for further discussion.

3.3 Site Ownership

Based on a review of the title commitment dated December 27, 2019 provided by Placer Title Company, the current site owner is the City of Rio Vista, a municipal corporation. Previous owners were not identified.

3.4 Title Search

Based on a review of the client-supplied title commitment, RECs were not identified.

3.5 Environmental Liens and Activity and Use Limitations

Based on a review of the title commitment records provided by the client, environmental liens or activity and use limitations were not identified. In addition, the EDR regulatory database report included a review of both Federal and State Engineering Control (EC) and Institutional Control (IC) databases. Based on a review of the database report, the site was not listed on the EC or IC databases.

3.6 Interviews Regarding Current and Historical Site Uses

Terracon submitted an owner questionnaire to the City of Rio Vista; however, a response to the questionnaire had not been received at the issuance of this report. Based on the review of historical information and other agency responses, the absence of a response regarding the owner questionnaire does not represent a significant data gap in connection with the site.

3.7 Prior Report Review

Terracon requested the client provide any previous environmental reports and geotechnical reports they are aware of for the site. Previous reports were not provided by the client to Terracon for review.

4.0 RECORDS REVIEW

Regulatory database information was provided by EDR, a contract information services company. The purpose of the records review was to identify RECs in connection with the site. Information in this section is subject to the accuracy of the data provided by the information services company and the date at which the information is updated. The scope herein did not include confirmation of facilities listed as "unmappable" by regulatory databases.

In some of the following subsections, the words up-gradient, cross-gradient and down-gradient refer to the topographic gradient in relation to the site. As stated previously, the groundwater flow direction and the depth to shallow groundwater, if present, would likely vary depending upon seasonal variations in rainfall and the depth to the soil/bedrock interface. Without the benefit of on-site groundwater monitoring wells surveyed to a datum, groundwater depth and flow direction beneath the site cannot be directly ascertained.

4.1 Federal and State/Tribal Databases

Listed below are the facility listings identified on federal and state/tribal databases within the ASTM-required search distances from the approximate site boundaries. Database definition, descriptions, and the database search report are included in Appendix D.

Federal Databases

Database	Description	Distance (miles)	Listings
CERCLIS	Comprehensive Environmental Response, Compensation, & Liability Information System	0.5	0
CERCLIS / NFRAP	Comprehensive Environmental Response, Compensation, & Liability Information System/No Further Remedial Action Planned	0.5	0
ERNS	Emergency Response Notification System	Site	0
IC / EC	Institutional Control/Engineering Control	Site	0
NPL	National Priorities List	1	0
NPL (Delisted)	National Priorities Delisted List	0.5	0
RCRA CORRACTS/ TSD	RCRA Corrective Action Activity	1	0

Database	Description	Distance (miles)	Listings
RCRA Generators	Resource Conservation and Recovery Act	Site and adjoining properties	0
RCRA Non-CORRACTS/ TSD	RCRA Non-Corrective Action Activity	0.5	0

State/Tribal Databases

Database	Description	Distance (miles)	Listings
AST	Above Ground Storage Tank Facilities	0.25	0
CA FID UST	Facility Inventory Database	0.25	0
CALSITES	CalSites Database	1.0	0
CALSITES (AWP)	Active Annual Workplan Sites	1.0	0
CERS	CalEPA Regulated Site Portal Data California Environmental Reporting System (CERS)	0.25	0
CERS HAZ WASTE	CERS Hazardous Waste	0.25	4
CERS TANKS	CERS Tanks	0.25	1
HIST CORTESE	Hazardous Waste & Substance Site List	0.5	1
HIST UST	Hazardous Substance Storage Container Database	1.0	4
LUST	Leaking Underground Storage Tanks	0.5	3
MWMP	Medical Waste Management Program Listing	0.25	1
NOTIFY 65	Proposition 65 Records	1.0	2
RCRA NONGEN / NLR	RCRA – Non Generators / No Longer Regulated	0.25	4
SLIC	Spills, Leaks, Investigation & Cleanup	0.5	3
SWEEPS UST	Statewide Environmental Evaluation & Planning System	0.25	3
SWF/LF	Solid Waste Facilities/Landfills	0.5	1
US MINES	Mines Master Index File	0.25	1
UST	Underground Storage Tank Facilities	Site and adjoining properties	0
VCP	Voluntary Cleanup Program	0.5	0
WMUDS/SWAT	Waste Management Unit Database/Solid Waste Disposal Sites	0.5	1

In addition to the above ASTM-required listings, Terracon reviewed other federal, state, local, and proprietary databases provided by the database firm. A list of the additional reviewed databases is included in the regulatory database report included in Appendix D.

The following table summarizes the site-specific information provided by the database and/or gathered by this office for identified facilities. Facilities within 500 feet are listed in order of proximity to the site. Additional discussion for selected facilities follows the summary table.

Listed Facilities

Facility Name And Location	Estimated Distance / Direction/Gradient	Database Listings	Is a REC, CREC, or HREC to the Site
Instrat Inc. Rio Vista Muffler (1105 Airport Road)	Adjacent / North-northeast / Down-gradient	RCRA NonGen / NLR, HAZNET CERS HAZ WASTE, CERS	No, based on discussion below.
Cross Country HDI (1031 Airport Road)	342 feet / East-northeast / Down-gradient	RCRA NonGen / NLR, CERS HAZ WASTE, CERS	No, based on distance and gradient.
Rio Vista Automotive Alexander Ag Service Above (933 Airport Way)	460 feet / East-northeast / Down-gradient	CPS-SLIC, HIST UST, HAZNET, CERS UST, SWEEPS UST, HAZNET HIST UST	No, based on discussion below.
Moreno Trenching (1015 Airport Road)	495 feet / West-southwest / Up to cross-gradient	RCRA NonGen / NLR, CERS HAZ WASTE, CERS TANKS, CERS	No, based distance.
Delta Marina Aircraft Hanger Air Craft Hanger (1000 Airport Road)	Undetermined, presumed to be between 250 feet and 500 feet / Northeast / Down- gradient	UST, SWEEPS UST HIST UST	No, based on discussion below.

Instrat Inc. / Rio Vista Muffler (1105 Airport Road)

Instrat Inc. / Rio Vista Muffler (1105 Airport Road) located to the adjoining north-northeast and down-gradient relative to the site is identified on the RCRA – Non Generators / No Longer Regulated (RCRA NonGen / NLR), Facility and Manifest Data (HAZNET), California Environmental Reporting System (CERS) and CERS Hazardous Waste (CERS HAZ WASTE) databases. Based on a review of the RCRA NonGEN / NLR listing, Instrat Inc. is historically a small quantity generator of ignitable waste but is not presently a generator. The HAZNET listing reported waste streams as organic solids with halogens. The Rio Vista Muffler CERS listing indicated the facility was cited for various housekeeping and record keeping violations and appeared to be returned to compliance as of 2019. Based on the type of listing and

topographically down-gradient location, Instrat Inc. / Rio Vista Muffler (1105 Airport Road) do not represent a REC in connection with the site.

Rio Vista Automotive / Alexander Ag Service (933 Airport Road)

Rio Vista Automotive / Alexander Ag Service (933 Airport Road), located approximately 460 feet east-northeast and down-gradient relative to the site is identified on the Spills, Leaks, Investigation & Cleanup (CPS-SLIC), HIST UST (2), HAZNET, CERS, UST, SWEEPS UST, and HAZNET databases. CERS identifies the facility as an open-inactive cleanup site. Based on a review of the CPS-SLIC (Rio Vista Automotive) listing, Alexander Ag Flying Service operated a crop dusting facility and equipment was field rinsed on the property. Based on a review of GeoTracker elevated organochlorine pesticides were identified in soil and groundwater at the facility. Based on distance and down-gradient position relative to the site, Rio Vista Automotive / Alexander Ag Service (933 Airport Way), do not represent a REC to the site.

Delta Marina Aircraft Hanger / Air Craft Hanger (1000 Airport Road)

Delta Marina Aircraft Hanger / Air Craft Hanger, located at 1000 Airport Road, are identified on the UST, SWEEPS UST, and HIST UST databases. Based on a review of the HIST UST listing, an inactive 5,000 gallon aviation fuel UST was installed at the address in 1980. The UST and SWEEPS UST listings indicated Delta Marina Aircraft Hanger was listed as inactive and closed as of October 2005. The Solano County Department of Resource Management provided a UST record confirming the HIST UST information; however, no UST removal records were provided. Terracon was unable to identify the exact location of the building/facility; however, the presumed location of the facility is between 250 and 500 feet northeast and downgradient of the site based on the situs address. In addition, based on a review of historical aerial photographs during this time indicated that the site was only used as a runway and no structures were apparent. Based on the review of historical information and down-gradient position relative to the site, Delta Marina Aircraft Hanger / Air Craft Hanger (1000 Airport Road) do not represent a REC to the site.

The remaining facilities listed in the database report do not appear to represent RECs to the site at this time based upon regulatory status, apparent topographic gradient, and/or distance from the site.

Unmapped facilities are those that do not contain sufficient address or location information to evaluate the facility listing locations relative to the site. The report did not list facilities in the unmapped section.

4.2 Local Agency Inquiries

Agency Contacted/ Contact Method	Response
Solano County Assessor / Email: assessor@solanocounty.com	According to an email response from the Solano County Assessor, the site is currently owned by the City of Rio Vista. The assessor did not have an address for the site and recommended contacting the City of Rio Vista Planning Department. Refer to City of Rio Vista discussion below.
Solano County Department of Resource Management Environmental Health Services / Email: radmin@solanocounty.com	As the site was historically part of the Rio Vista Airport, Terracon requested documents associated with historic airport operations. The EHS provided records associated with the former parent parcel, soil boring logs for the adjacent eastern parcel, and UST records associated with 1051 St. Francis Way, 933 Airport Road, and 1000 Airport Road and an unidentified address. Following a review of these documents, the USTs were determined to be located more than 500 feet from the site or were in a cross- to down-gradient direction. Therefore, RECs were not identified.
City of Rio Vista / Email: jjasso@ci.rio-vista.ca.us	Terracon requested environmental, building, hazardous material records, violations, complaints, AST and/or UST and historical information related to the former airport which may be on file with the City of Rio Vista. Mr. Jose Jasso, Assistant City Manager / City Clerk, indicated the City's Public Works Director (name not reported) visited the County and records pertaining tanks were not identified in connection with the site. Mr. Jasso provided a copy of a parcel map depicting new addresses for the site and adjoining parcels. Based on a review of the parcel map, the new site address is 40 Richard Brann Drive. Mr. Jasso indicated there were no additional records responsive to our request. Based on the reviewed information, RECs were not identified.
Rio Vista Fire Department / Email: rvfd@ci.rio-vista.ca.us	At the issuance of this report, a response had not been received from the Fire Department. Based on the historical information and other agency responses, the absence of a response from the agency does not represent a significant data gap in connection with the site.
Department of Toxic Substances Control / Email: pubreqact@dtsc.ca.gov	According to the agency response, no files were found.

Agency Contacted/ Contact Method	Response
Central Valley Regional Water Quality Control Board / Email: ranchocordovar5spras@waterboards.ca.gov	According to the agency response, no files were found for the site; however, the agency provided GeoTracker links for two off-site facilities (933 Airport Road and the Asta Sand Pit) located near the site. Based on distance and gradient, RECs were not identified in connection with the off-site facilities. Refer to Section 4.1 for further discussion.
Yolo Solano Air Quality Management District / Email: PRA@ysaqmd.org	According to the agency response, there were no records found.

4.3 Local Area Knowledge

Based on a review of the California Department of Conservation’s Geologic Energy Management Division (CalGEM) Well Finder [website](#), the site is located within the Rio Vista Gas field; however, no oil or gas wells were depicted within 800 feet of the site.

Based on a review of the National Pipeline Mapping System (NPMS) [website](#), no hazardous substances pipelines were found within 2,800 feet of the site.

Based on a review of the City of Rio Vista [website](#) and a review of the Solano County Airport Land Use Commission Airport/Land Use Compatibility Plan Rio Vista Municipal Airport, New Rio Vista Airport dated May 1988, the airport was established in 1953 and consisted of an approximately 0.5 square mile tract of land and included 52 aircraft and 45,000 annual operations in 1987. The airport was proposed to be relocated to avoid flights over the residential development west of the airport. Access to the airport was from St. Francis Way and Airport Road on the northeastern side of the airport. Based on the topographic maps and aerial photographs (Section 3.1) the main airport hangars / buildings were located greater than 600 feet southwest, southeast, and east of the site.

Based on a review of the Abandoned and Little-Known Airfields, California, Southwestern Sacramento Area [website](#), the Rio Vista Municipal Airport was established from the early 1950s through the mid-1990s when it was closed and the airport was relocated to its existing location at 3000 Baumann Road. The historical airport consisted of two paved runways. The northwest to southeast oriented runway (Runway 14/32) crossed diagonally through the site. Runway 14/32 was 1,975 feet long and 30 feet wide.

5.0 SITE RECONNAISSANCE

5.1 General Site Information

Information contained in this section is based on a visual reconnaissance conducted while walking through the site and the accessible interior areas of structures, if any, located on the site. The site and adjoining properties are depicted on the Site Diagram, which is included in Exhibit 2 of Appendix A. Photo documentation of the site at the time of the visual reconnaissance is provided in Appendix B. Credentials of the individuals planning and conducting the site visit are included in Appendix E.

General Site Information

Site Reconnaissance	
Field Personnel	Tamara K. Woods
Reconnaissance Date	February 12, 2020
Weather Conditions	Sunny, 55 F
Site Contact/Title	None

5.2 Overview of Current Site Occupants

The site is an approximately 1.26 acre tract of vacant land located at 40 Richard Brann Drive, Rio Vista, Solano County, California, Assessor Parcel Number (APN) 0178-230-180. During the reconnaissance, the site was unoccupied.

5.3 Overview of Current Site Operations

During the site reconnaissance, there were no site operations.

5.4 Site Observations

The following table summarizes site observations and interviews. Affirmative responses (designated by an “X”) are discussed in more detail following the table.

Site Characteristics

Category	Item or Feature	Observed or Identified
Site Operations, Processes, and Equipment	Emergency generators	
	Elevators	
	Air compressors	
	Hydraulic lifts	
	Dry cleaning	

Category	Item or Feature	Observed or Identified
	Photo processing	
	Ventilation hoods and/or incinerators	
	Waste treatment systems and/or water treatment systems	
	Heating and/or cooling systems	
	Paint booths	
	Sub-grade mechanic pits	
	Wash-down areas or carwashes	
	Pesticide/herbicide production or storage	
	Printing operations	
	Metal finishing (e.g., electroplating, chrome plating, galvanizing, etc.)	
	Salvage operations	
	Oil, gas or mineral production	
	Other processes or equipment	X
Aboveground Chemical or Waste Storage	Aboveground storage tanks	
	Drums, barrels and/or containers ³ 5 gallons	
	MSDS or SDS	
Underground Chemical or Waste Storage, Drainage or Collection Systems	Underground storage tanks or ancillary UST equipment	
	Sumps, cisterns, French drains, catch basins and/or dry wells	
	Grease traps	
	Septic tanks and/or leach fields	
	Oil/water separators, clarifiers, sand traps, triple traps, interceptors	
	Pipeline markers	
	Interior floor drains	
Electrical Transformers/PCBs	Transformers and/or capacitors	
	Other equipment	

Category	Item or Feature	Observed or Identified
Releases or Potential Releases	Stressed vegetation	
	Stained soil	
	Stained pavement or similar surface	
	Leachate and/or waste seeps	
	Trash, debris and/or other waste materials	
	Dumping or disposal areas	
	Construction/demolition debris and/or dumped fill dirt	
	Surface water discoloration, odor, sheen, and/or free floating product	
	Strong, pungent or noxious odors	
	Exterior pipe discharges and/or other effluent discharges	
Other Notable Site Features	Surface water bodies	
	Quarries or pits	
	Wastewater lagoons	
	Wells	

Site Operations, Processes, and Equipment

Other processes or equipment

During the site reconnaissance, remnants of an asphalt runway was observed across the central portion of the site. A minor amount of wood and metal fence post with concrete was observed on the runway. Two recreational vehicles (RVs), PVC pipe, and sheet metal were observed on the northeastern portion of the site. Staining, odors, and/or evidence of release was not observed near the site features. Based on site observations, RECs were not identified.

6.0 ADJOINING PROPERTY RECONNAISSANCE

Visual observations of adjoining properties (from site boundaries) are summarized below.

Adjoining Properties

Direction	Description
Northeast	Properties to the adjoining northeast consisted of Senvion Wind Energy Solutions (1107 Airport Road) and Rio Vista Food Pantry / Rio Vista Muffler (1105 Airport Road). An offsite material storage area was observed along the adjoining northeastern site boundary. Materials included metal parts, pipe, vehicles, three 55 gallon metal drums, three 1,200+ gallon ASTs, and three 2,000+ gallon ASTs. Staining, odors, and/or evidence of release was not observed from the site perimeter.

Direction	Description
Southeast	Properties to the adjoining northeast consisted of vacant land (30 Richard Brann Drive).
Southwest	Richard Brann Drive abuts the site to the southwest followed by vacant land (41 & 51 Richard Brann Drive) and a new building under construction (31 Richard Brann Drive).
Northwest	Norman Richardson Drive abuts the site to the northwest followed by vacant land (APN 0178-230-025).


RECs were not observed with the adjoining properties.

7.0 ADDITIONAL SERVICES

Per the agreed scope of services specified in the proposal, additional services (e.g. asbestos sampling, lead-based paint sampling, wetlands evaluation, lead in drinking water testing, radon testing, vapor encroachment screening, etc.) were not conducted.

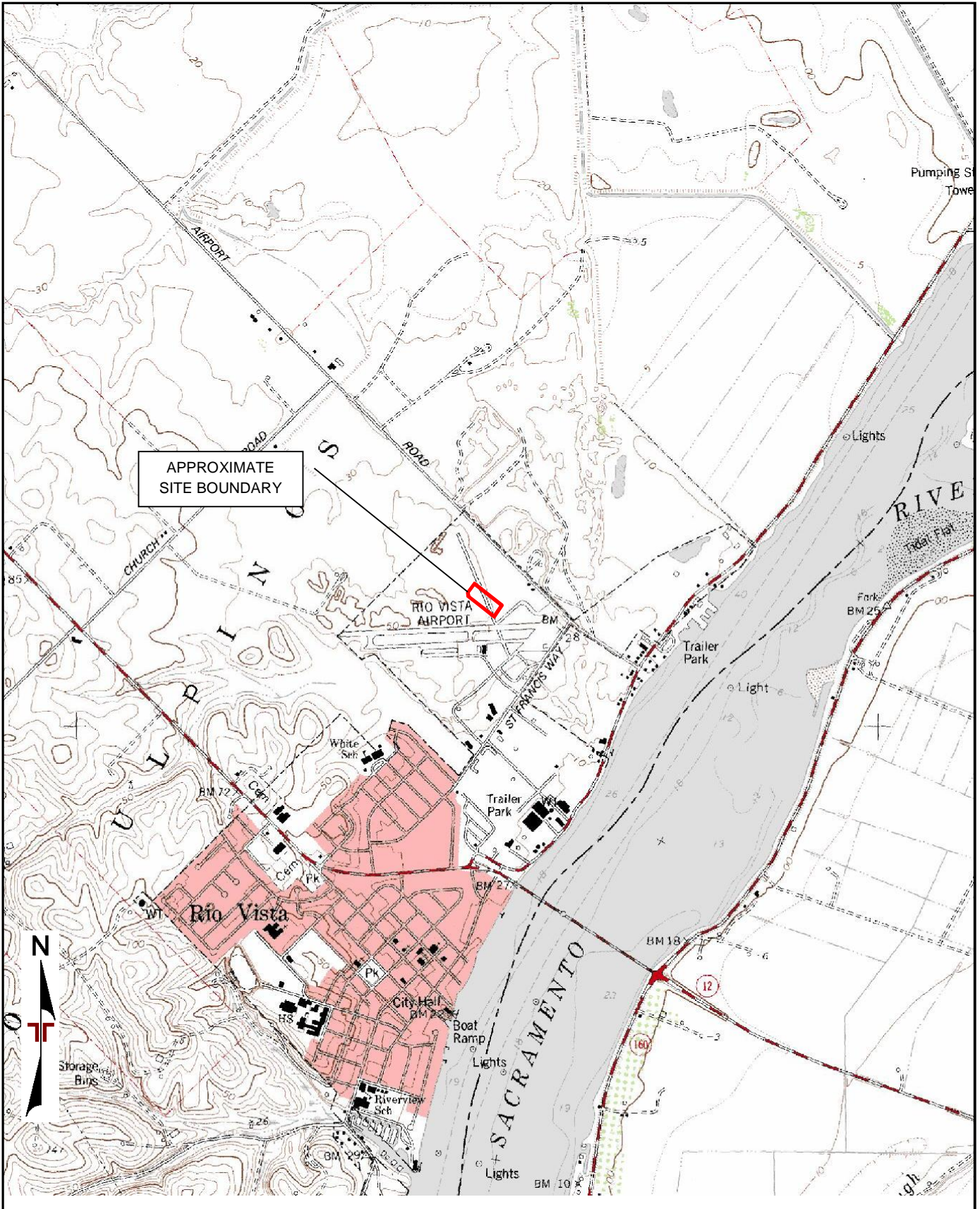
8.0 DECLARATION

I, Kristin Stout, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in Section 312.10 of 40 CFR 312; and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the site. I have developed and performed the All Appropriate Inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



Kristin Stout
Senior Scientist

APPENDIX A
EXHIBIT 1 – TOPOGRAPHIC MAP
EXHIBIT 2 – SITE DIAGRAM



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY
 QUADRANGLES INCLUDE: RIO VISTA, CA (1/1/1993).

Project Manager:	TKW
Drawn by:	TKW
Checked by:	KAS
Approved by:	KAS

Project No.	NA207008
Scale:	1"=2,000'
File Name:	N/A
Date:	FEB 2020

Terracon
 902 Industrial Way
 Lodi, CA 95240-3106

TOPOGRAPHIC MAP

Snowtill
 40 Richard Brann Drive
 Rio Vista, Solano County, California

Exhibit	1
---------	---



VACANT LAND
(APN 0178-230-025)

SENVION WIND ENERGY SOLUTIONS
(1107 AIRPORT ROAD, A-D)

RIO VISTA FOOD PANTRY / RIO VISTA MUFFLER
(1105 AIRPORT ROAD, A-G)

NORMAN RICHARDSON DRIVE

OFFSITE AST, DRUM AND VEHICLE STORAGE AREA

ASPHALT / FORMER AIRPORT RUNWAY

APPROXIMATE SITE BOUNDARY

(51)

(40)

(41)

VACANT LAND

5

4

2

VACANT LAND

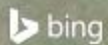
(31)

(30)

NEW BUILDING UNDER CONSTRUCTION

RICHARD BRANN DRIVE

250 feet



© 2020 Microsoft Corporation. BING (2020) Distribution Airbus DS

LEGEND

- 1 WOOD/CONCRETE DEBRIS
- 2 RV
- 3 RV
- 4 PVC PIPE
- 5 SHEET METAL

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS. DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES. DETAIL LOCATIONS ARE APPROXIMATE.

Project Manager:	TKW
Drawn by:	TKW
Checked by:	KAS
Approved by:	KAS
Project No.:	NA207008
Scale:	AS SHOWN
File Name:	N/A
Date:	FEB 2020

Terracon
902 Industrial Way
Lodi, CA 95240-3106

SITE DIAGRAM

Snowtill
40 Richard Brann Drive
Rio Vista, Solano County, California

Exhibit

2

APPENDIX B
SITE PHOTOGRAPHS



Photo #1 View from the western survey marker looking northeast along Norman Richardson Drive.



Photo #2 View from the western survey marker looking southeast along Richard Brann Drive.



Photo #3 View from the southern survey marker looking northwest along Richard Brann Drive.



Photo #4 View from the southern survey marker looking northeast.



Photo #5 View from the eastern survey marker looking southwest.



Photo #6 View from the eastern survey marker looking west.



Photo #7 View from the eastern survey marker looking northwest.



Photo #8 Interior view of the recreational vehicle observed in Photos #4 and #6.



Photo #9 View of a former airport runway and a telephone pole, metal, and concrete debris.



Photo #10 Additional view of the former airport runway looking southeast.



Photo #11 View of scattered sheet metal located along the northeastern site boundary.



Photo #12 View of PVC pipe located along the northeastern site boundary.



Photo #13 View of the adjoining northeastern multi-tenant industrial buildings (1107 and 1105 Airport Road)



Photo #14 Additional view of vehicle, drum, and AST storage located on the adjoining northeastern property (1107 and 1105 Airport Road).



Photo #15 View of the adjoining northern and eastern vacant properties (30 Richard Brann Drive).



Photo #16 View of the adjoining southern warehouse (31 Richard Brann Drive) currently under construction.



Photo #17 View of the adjoining northwestern Norman Richardson Drive followed by vacant land.



Photo #18 View of the adjoining southwestern Richard Brann Drive followed by vacant land.

APPENDIX C
HISTORICAL DOCUMENTATION AND USER QUESTIONNAIRE

Person Completing Questionnaire	Name: Nate Landau Company: JNL Capital LLC	Phone: 714-664-7334 Email: nate.mothermotil@gmail.com
Site Name	Snowtill Rio Vista	
Site Address	Industrial Court, Rio Vista, California	
Point of Contact for Access	Name: Nate Landau Company: JNL Capital LLC	Phone: 714-664-7334 Email: nate.mothermotil@gmail.com
Access Restrictions or Special Site Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)	
Confidentiality Requirements?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, please explain)	
Current Site Owner	Name: Rob Hilkey Company: City of Rio Vista	Phone: 707-374-6451 Email: rhilkey@ci.rio-vista.ca.us
Current Site Operator	Name: Rob Hilkey Company: City of Rio Vista	Phone: 707-374-6451 Email: rhilkey@ci.rio-vista.ca.us
Reasons for ESA (e.g., financing, acquisition, lease, etc.)	acquisition	
Anticipated Future Site Use	Indoor cannabis cultivation	
Relevant Documents?	Please provide Terracon copies of prior Phase I or II ESAs, Asbestos Surveys, Environmental Permits or Audit documents, Underground Storage Tank documents, Geotechnical Investigations, Site Surveys, Diagrams or Maps, or other relevant reports or documents.	
ASTM User Questionnaire		
In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the user must respond to the following questions. Failure to provide this information to the environmental professional may result in significant data gaps, which may limit our ability to identify recognized environmental conditions resulting in a determination that "all appropriate inquiry" is not complete. This form represents a type of interview and as such, the user has an obligation to answer all questions in good faith, to the extent of their actual knowledge.		
1) Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.25)? <u>Unknown</u> <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)		
2) Did a search of recorded land title records (or judicial records where appropriate) identify any activity and use limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the property and/or have been filed or recorded against the property under federal, tribal, state, or local law (40 CFR 312.26)? <u>Unknown</u> <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below and send Terracon a copy of the title records or judicial records reviewed.)		
3) Do you have any specialized knowledge or experience related to the site or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the site or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business (40 CFR 312-28)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)		
4) Do you have actual knowledge of a lower purchase price because contamination is known or believed to be present at the site (40 CFR 312.29)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> Not applicable (If yes or Not applicable, explain below)		
5) Are you aware of commonly known or reasonably ascertainable information about the site that would help the environmental professional to identify conditions indicative of releases or threatened releases (40 CFR 312.30)? <input type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below) <u>Unknown</u>		
6) Based on your knowledge and experience related to the site, are there any obvious indicators that point to the presence or likely presence of contamination at the site (40 CFR 312.31)? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If yes, explain below)		
Comments or explanations: <u>we are buying the land directly from the city</u>		

Please return this form with the signed authorization to proceed.

Proposal No. PNA207008



ENTRY

Rio Vista Police Department

Rio Vista Police Department

Norm Repanich Grove

Snowtill
Industrial Court
Rio Vista, CA 94571

Inquiry Number: 5964900.4
February 07, 2020

EDR Historical Topo Map Report

with QuadMatch™



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

02/07/20

Site Name:

Snowtil
Industrial Court
Rio Vista, CA 94571
EDR Inquiry # 5964900.4

Client Name:

Terracon
902 Industrial Way
LODI, CA 95240
Contact: Tammy Woods



EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Terracon were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDR's Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:**Coordinates:**

P.O.#	NA	Latitude:	38.171771 38° 10' 18" North
Project:	NA207008	Longitude:	-121.688353 -121° 41' 18" West
		UTM Zone:	Zone 10 North
		UTM X Meters:	614892.37
		UTM Y Meters:	4225686.48
		Elevation:	45.00' above sea level

Maps Provided:

2012
1993
1978
1968
1953
1952
1910

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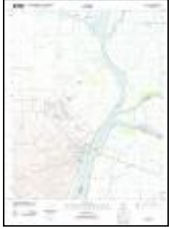
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Topo Sheet Key

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

2012 Source Sheets



Rio Vista
2012
7.5-minute, 24000

1993 Source Sheets



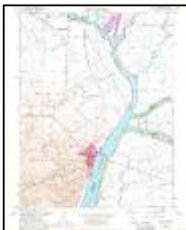
Rio Vista
1993
7.5-minute, 24000
Aerial Photo Revised 1974

1978 Source Sheets



Rio Vista
1978
7.5-minute, 24000
Aerial Photo Revised 1974

1968 Source Sheets

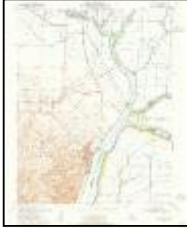


Rio Vista
1968
7.5-minute, 24000
Aerial Photo Revised 1968

Topo Sheet Key

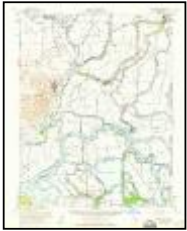
This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1953 Source Sheets



Rio Vista
1953
7.5-minute, 24000
Aerial Photo Revised 1949

1952 Source Sheets

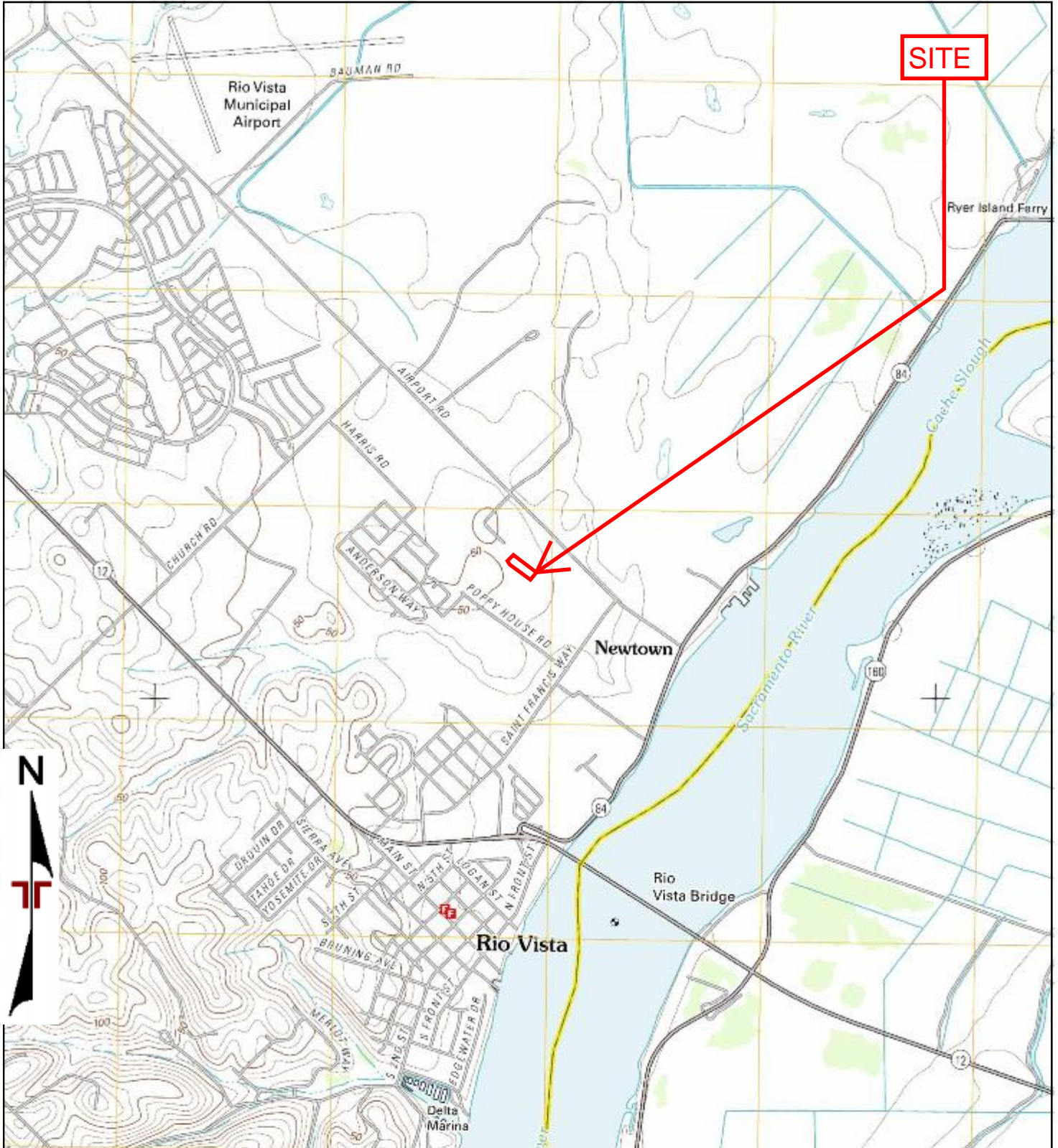


Rio Vista
1952
15-minute, 62500
Aerial Photo Revised 1949

1910 Source Sheets



Rio Vista
1910
7.5-minute, 31680



TP, Rio Vista, 2012, 7.5-minute



Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 2012



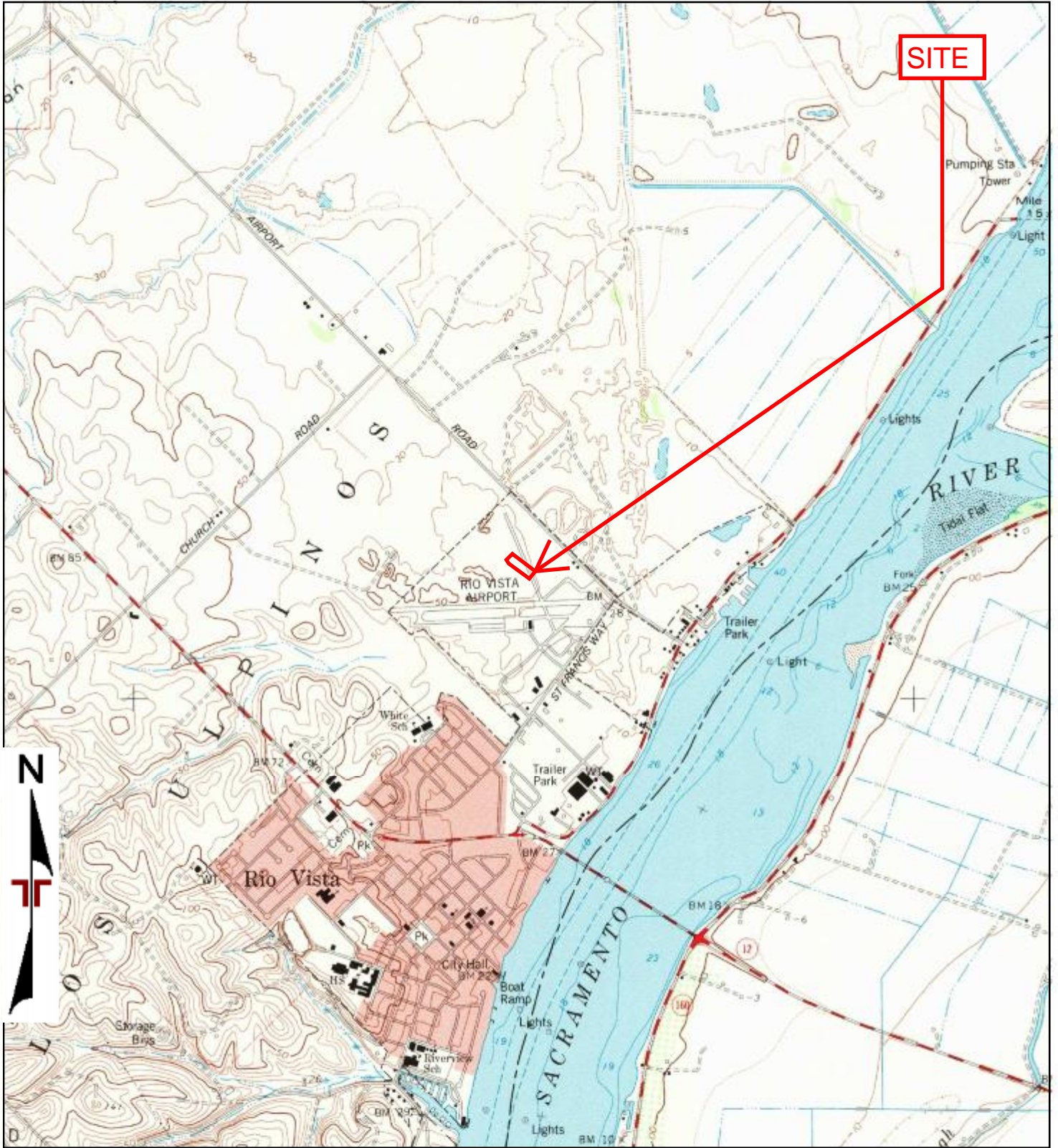
902 Industrial Way
LODI, CA 95240

2012 TOPOGRAPHIC MAP

Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix

C



TP, Rio Vista, 1993, 7.5-minute

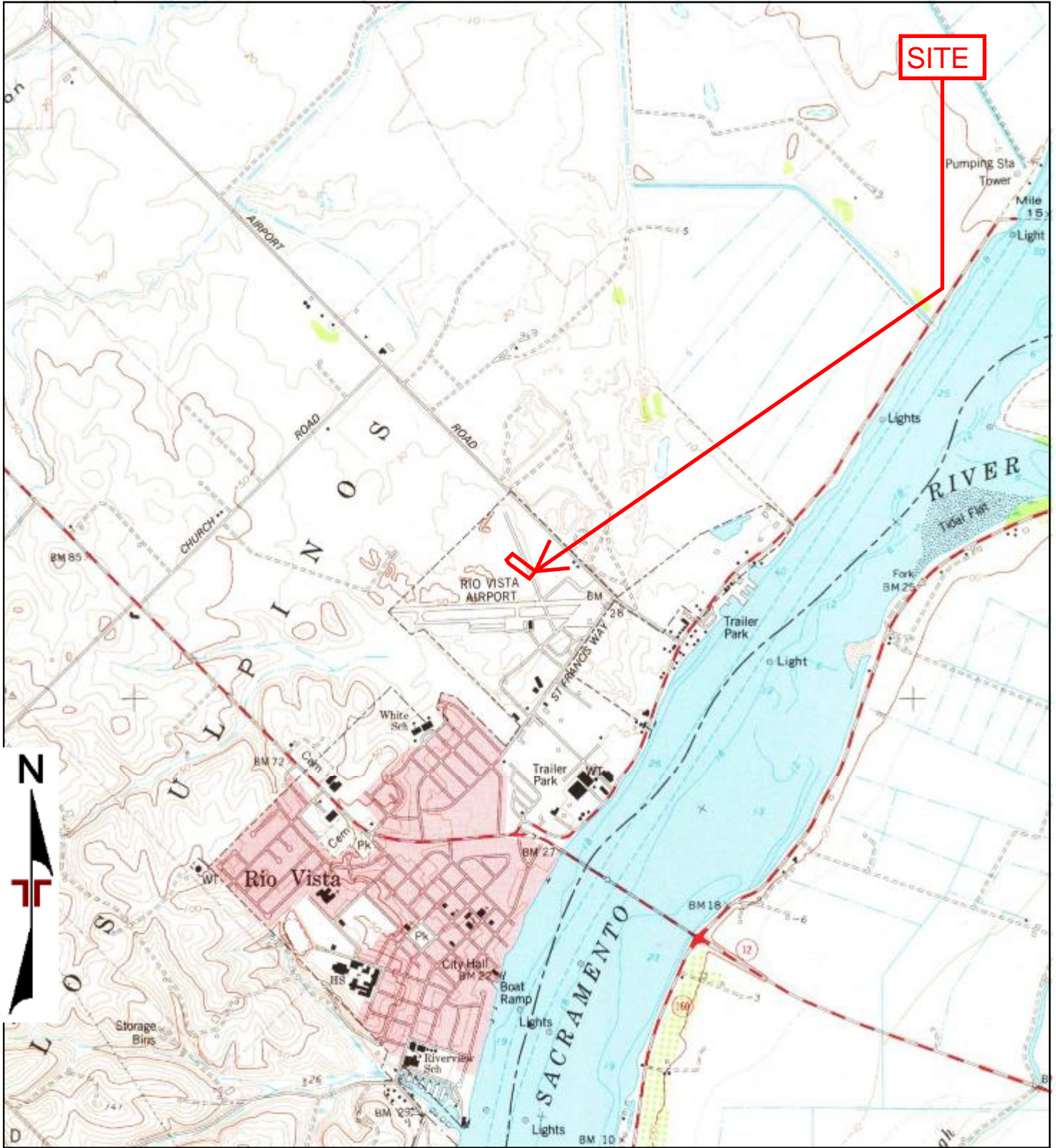


Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1993

Terracon
902 Industrial Way
LODI, CA 95240

1993 TOPOGRAPHIC MAP
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



TP, Rio Vista, 1978, 7.5-minute

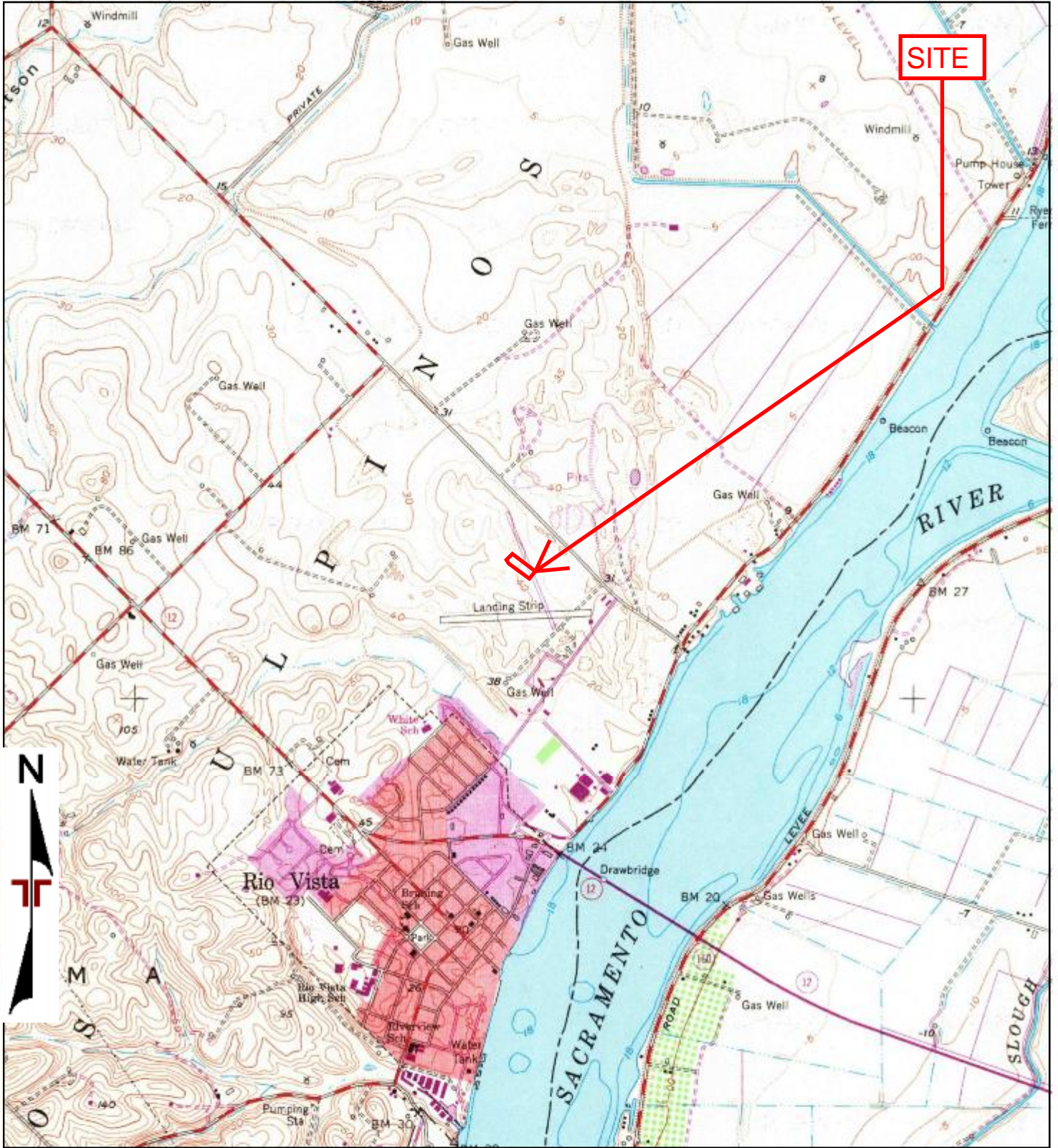


Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1978

Terracon
902 Industrial Way
LODI, CA 95240

1978 TOPOGRAPHIC MAP
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



TP, Rio Vista, 1968, 7.5-minute

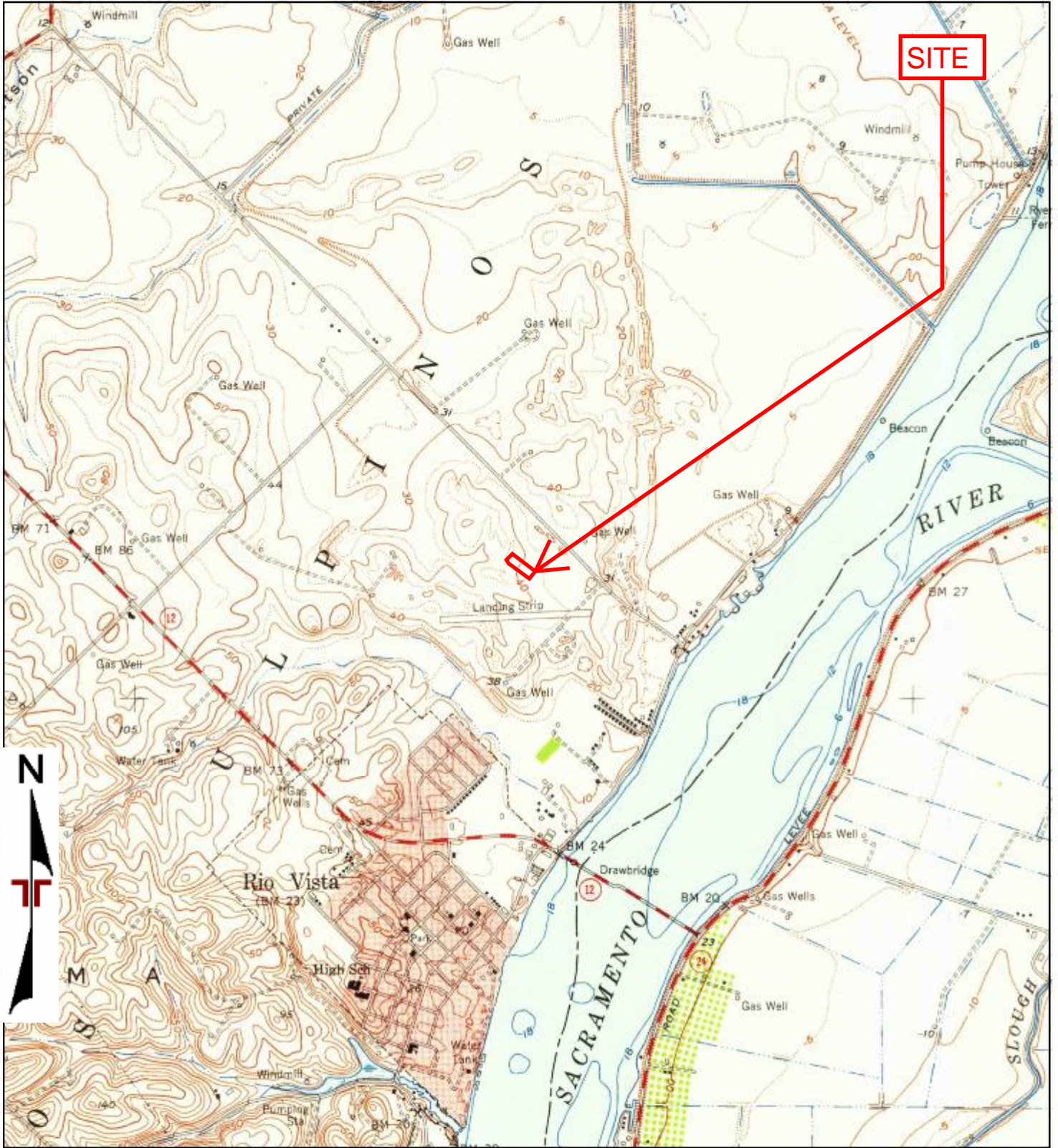


Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1968

Terracon
902 Industrial Way
LODI, CA 95240

1968 TOPOGRAPHIC MAP
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



TP, Rio Vista, 1953, 7.5-minute

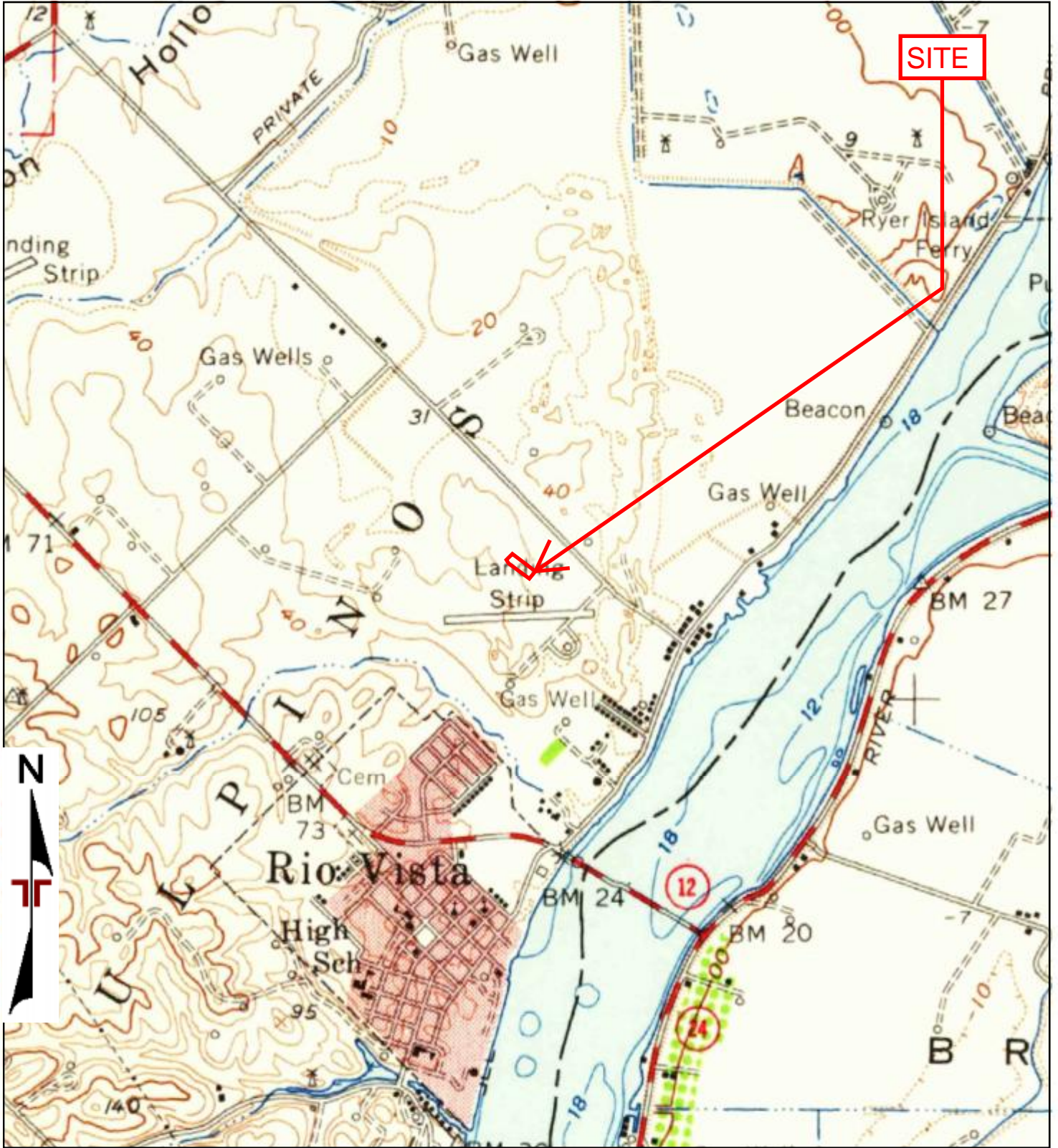


Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1953

Terracon
902 Industrial Way
LODI, CA 95240

1953 TOPOGRAPHIC MAP
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



TP, Rio Vista, 1952, 15-minute

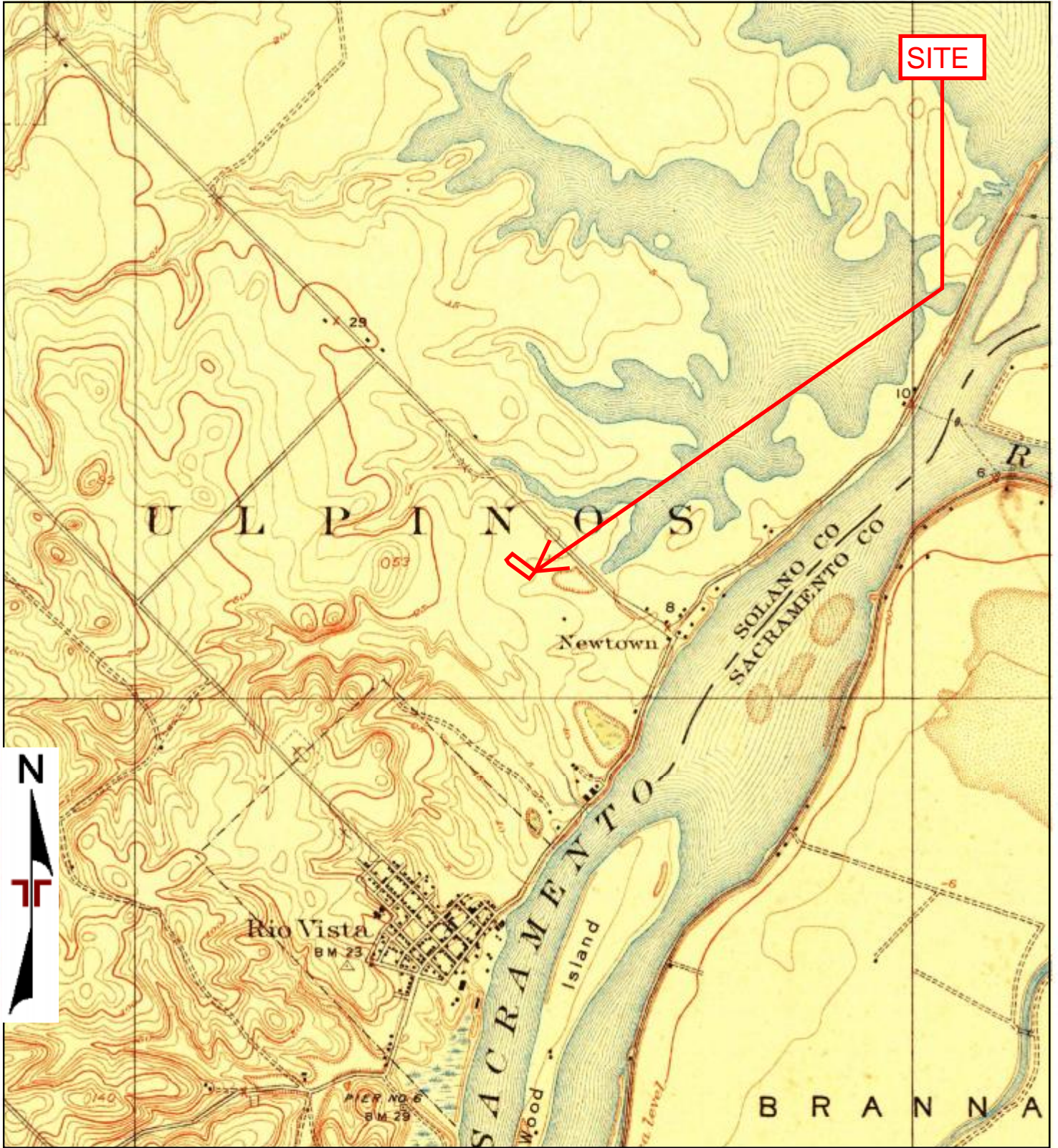


Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1952

Terracon
902 Industrial Way
LODI, CA 95240

1952 TOPOGRAPHIC MAP
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



TP, Rio Vista, 1910, 7.5-minute



Project Manager:	Project No. NA207008
Drawn by:	Scale: As Shown
Checked by:	File Name:
Approved by:	Date: 1910

Terracon
 902 Industrial Way
 LODI, CA 95240

1910 TOPOGRAPHIC MAP
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



Snowtill

Industrial Court

Rio Vista, CA 94571

Inquiry Number: 5964900.8

February 10, 2020

The EDR Aerial Photo Decade Package



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

02/10/20

Site Name:

Snowtil
Industrial Court
Rio Vista, CA 94571
EDR Inquiry # 5964900.8

Client Name:

Terracon
902 Industrial Way
LODI, CA 95240
Contact: Tammy Woods



Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1993	1"=500'	Acquisition Date: June 15, 1993	USGS/DOQQ
1984	1"=500'	Flight Date: September 01, 1984	USDA
1972	1"=500'	Flight Date: July 06, 1972	USDA
1968	1"=500'	Flight Date: May 02, 1968	USGS
1957	1"=500'	Flight Date: August 02, 1957	USDA
1952	1"=500'	Flight Date: August 02, 1952	USDA
1937	1"=500'	Flight Date: August 20, 1937	USDA

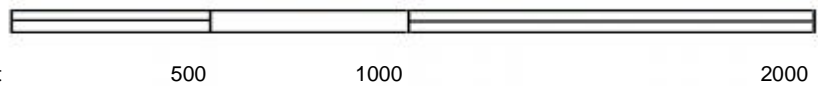
When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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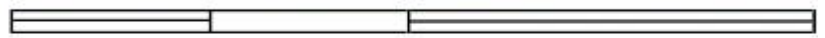
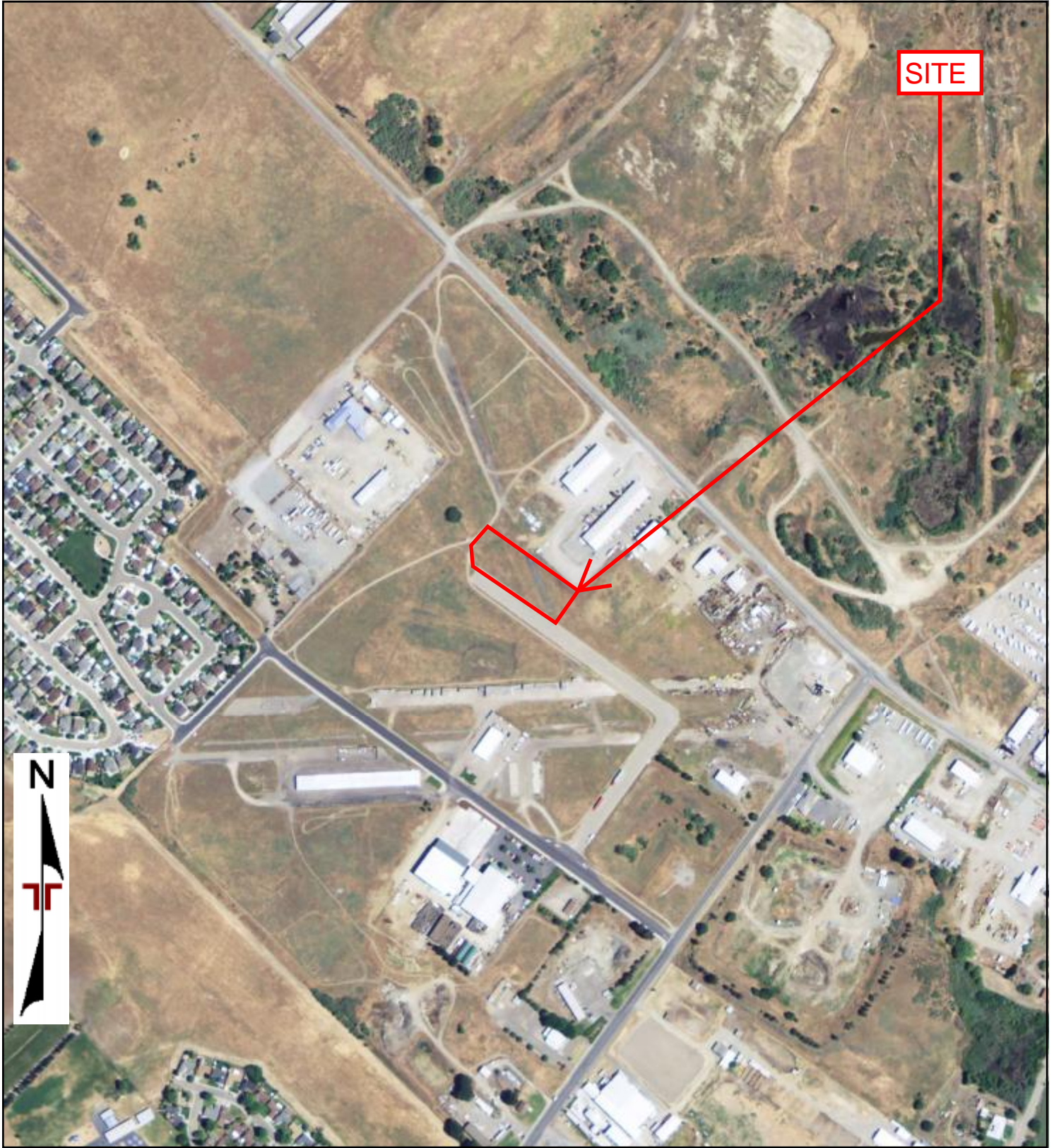
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Project Manager	Project No: NA207008	 902 Industrial Way LODI, CA 95240	2016 AERIAL PHOTOGRAPH	Appendix
Drawn By:	Scale: As Shown		Snowtill	C
Checked By:	File Name:		40 Richard Brann Drive	
Approved By:	Date: 2016		Rio Vista, CA 94571	



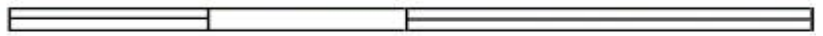
0 Feet 500 1000 2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2012

902 Industrial Way
 LODI, CA 95240

2012 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

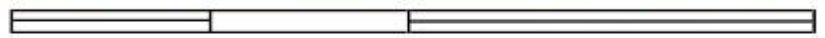
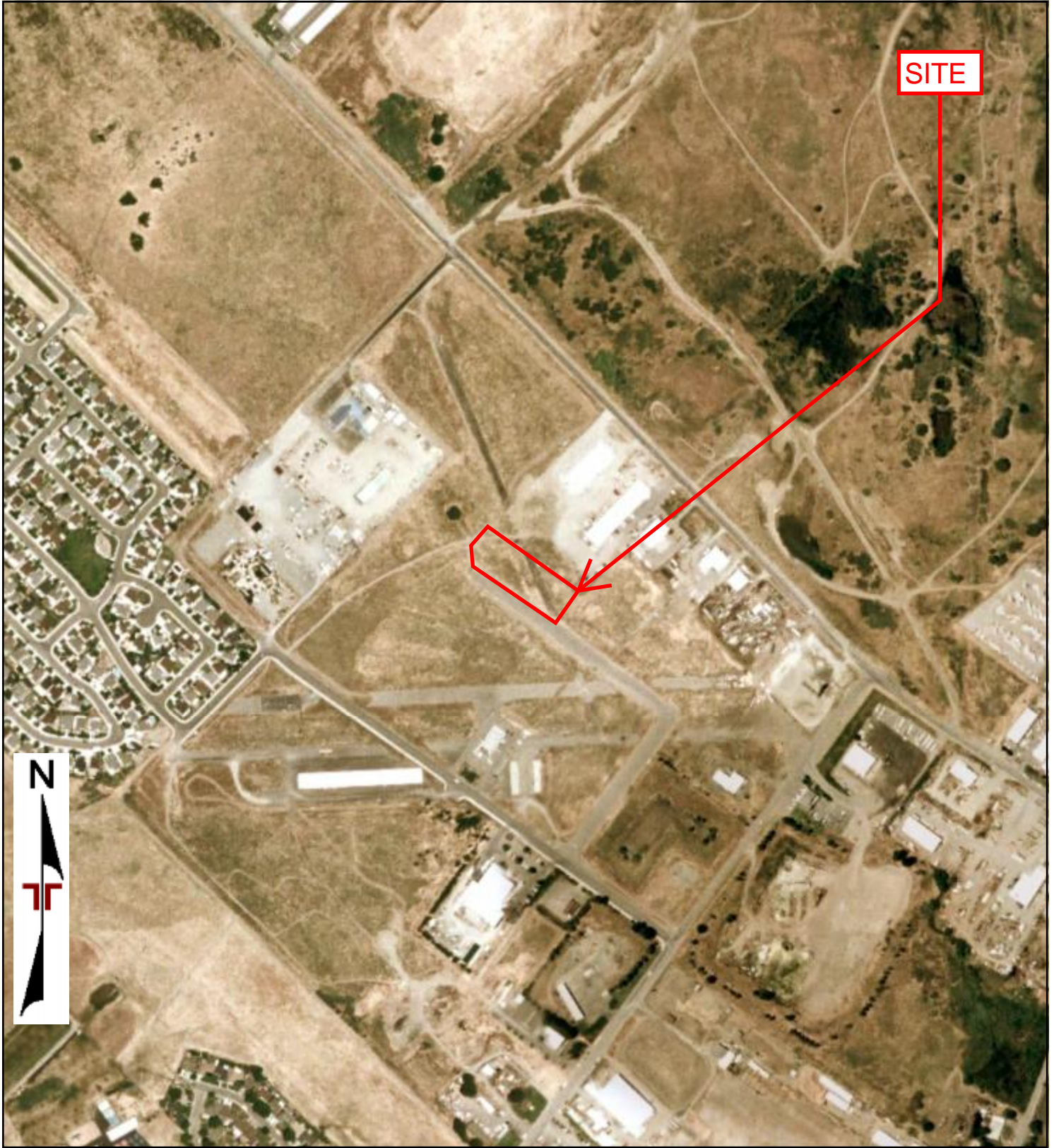
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2009

Terracon
 902 Industrial Way
 LODI, CA 95240

2009 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

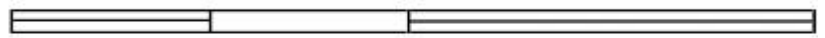
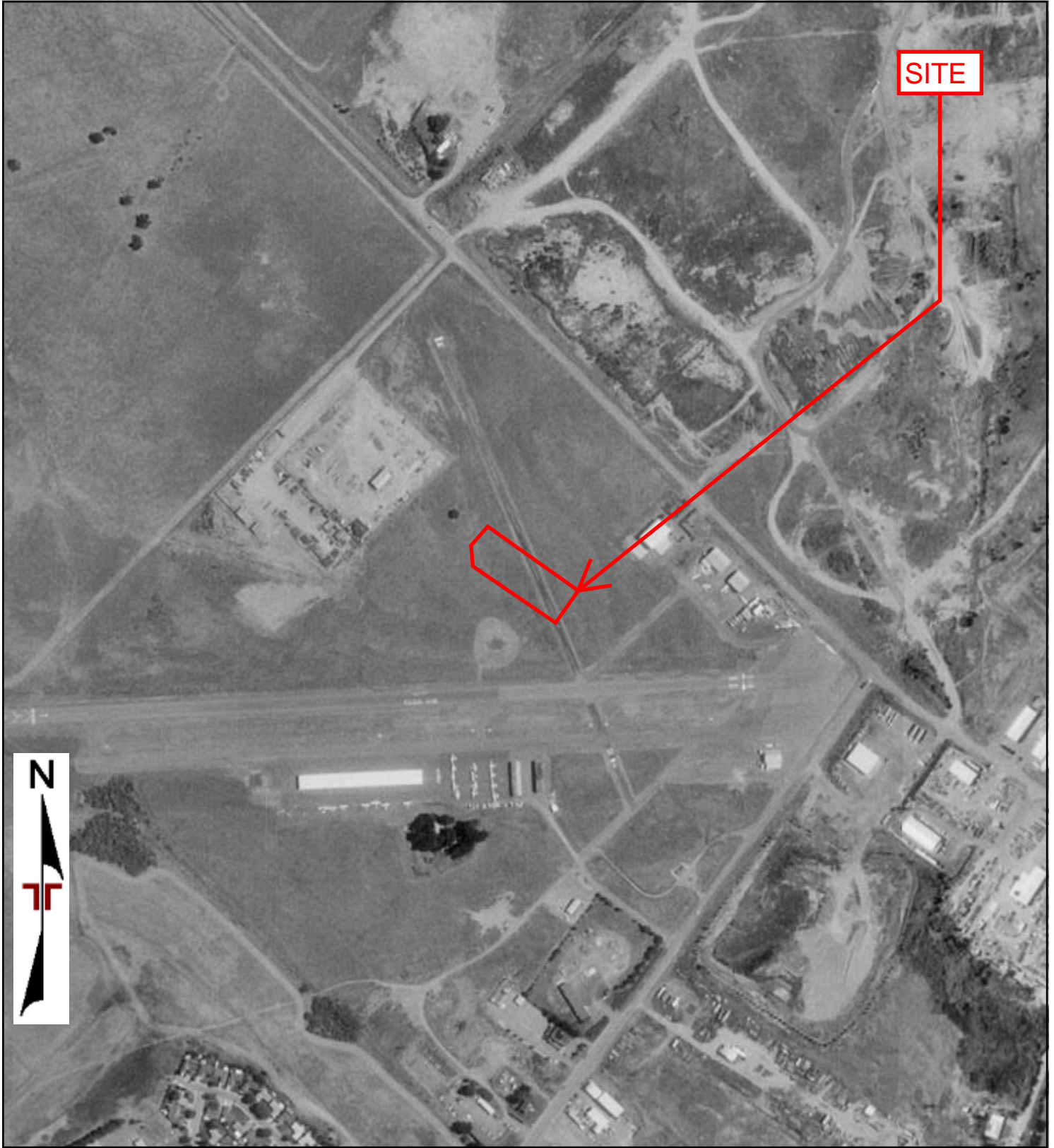
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 2006

Terracon
 902 Industrial Way
 LODI, CA 95240

2006 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

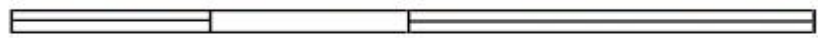
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1993

Terracon
 902 Industrial Way
 LODI, CA 95240

1993 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

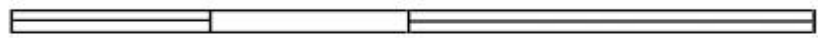
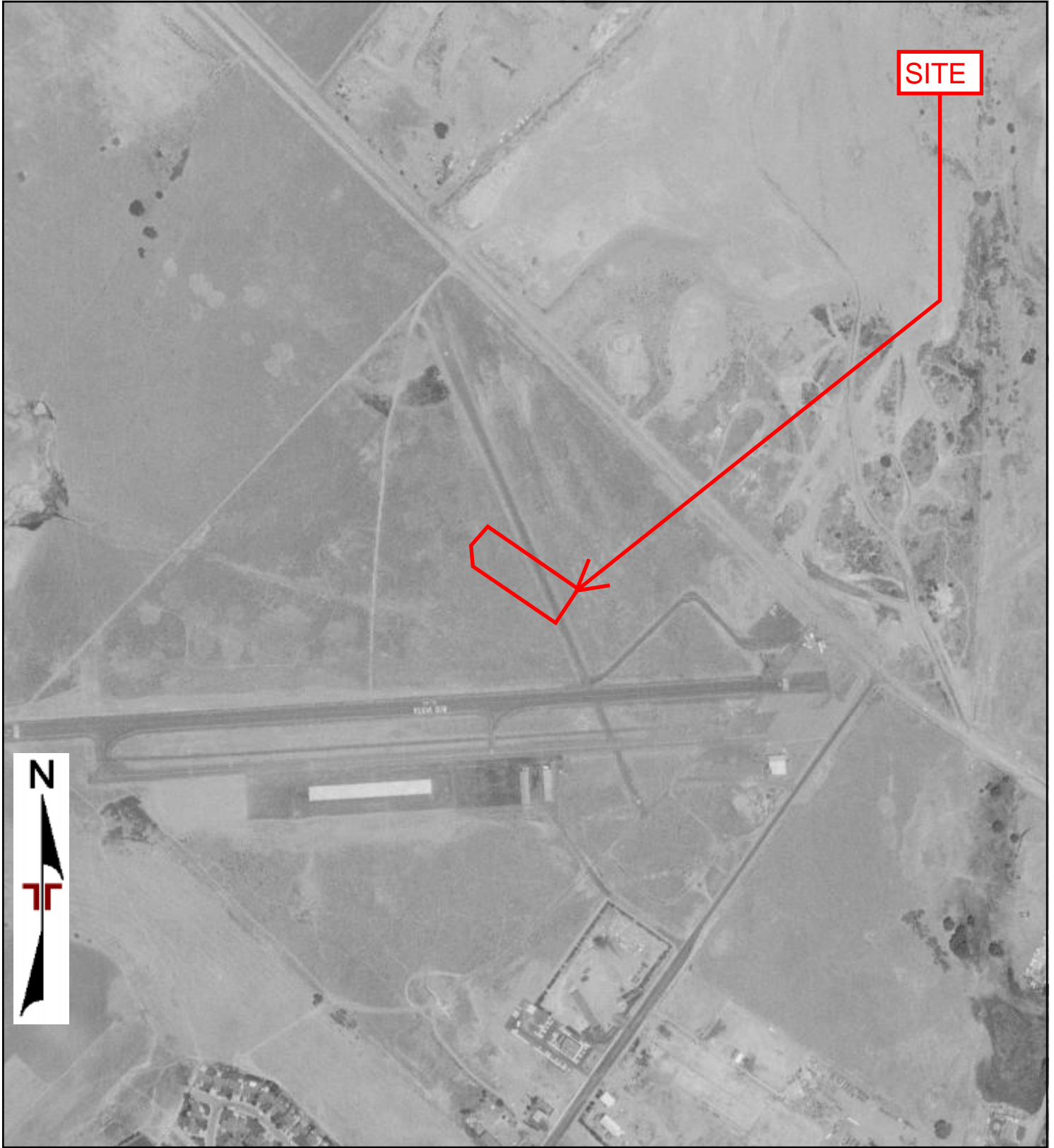
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1984


 902 Industrial Way
 LODI, CA 95240

1984 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

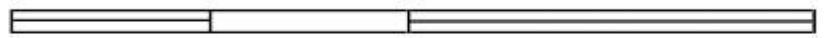
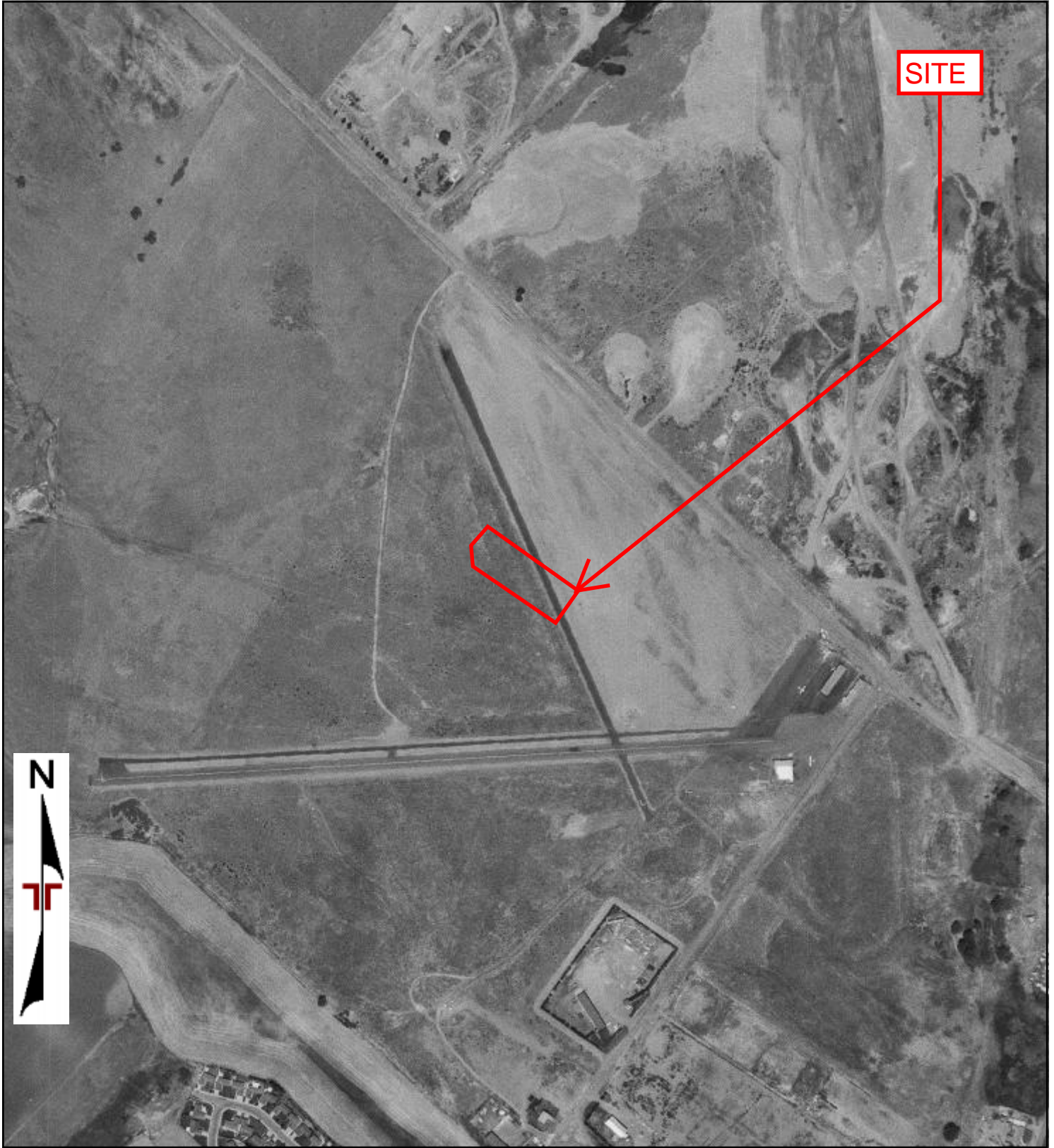
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1972

Terracon
902 Industrial Way
LODI, CA 95240

1972 AERIAL PHOTOGRAPH
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

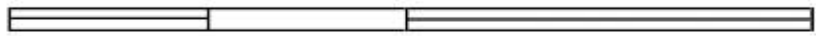
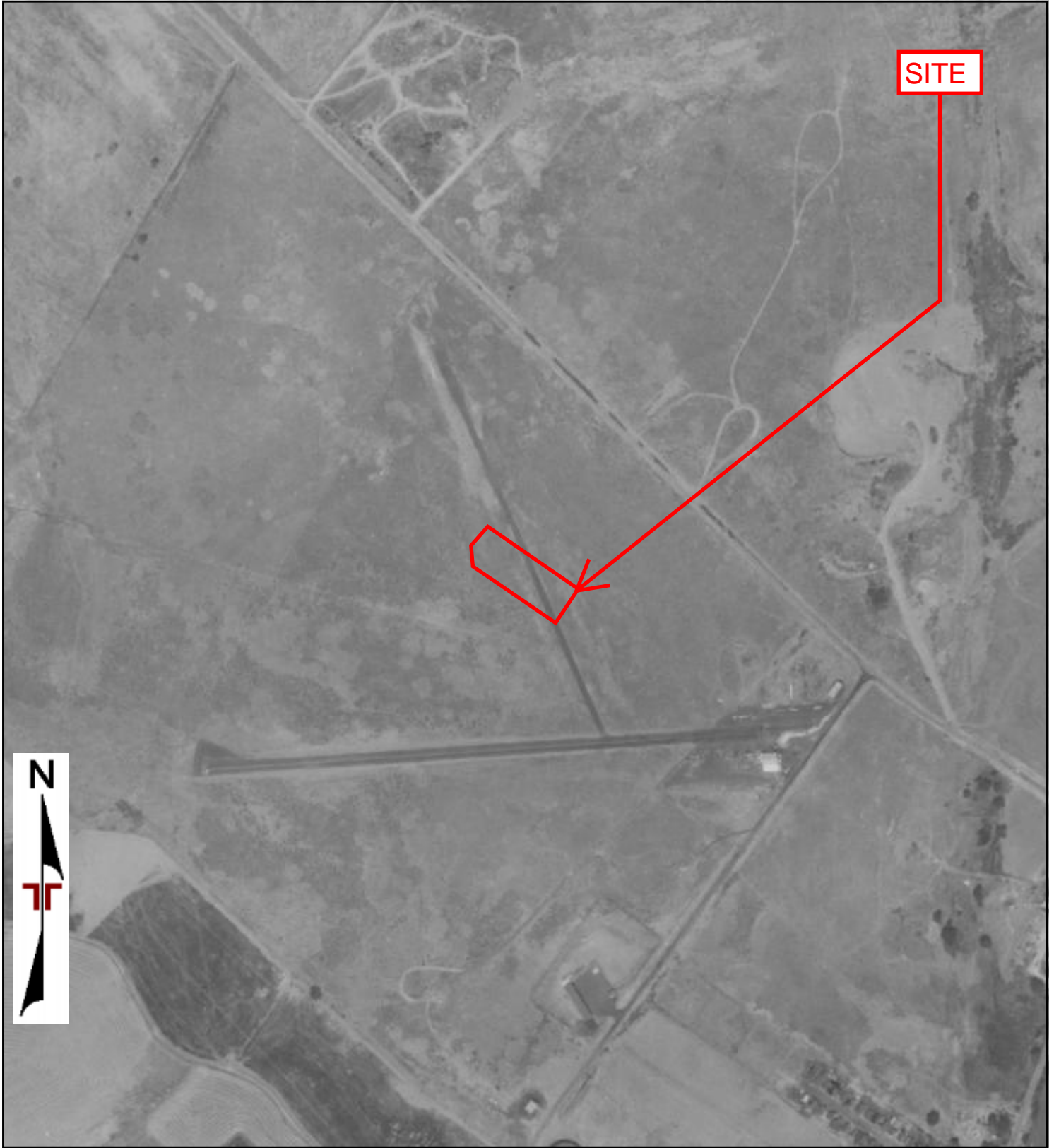
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1968

902 Industrial Way
 LODI, CA 95240

1968 AERIAL PHOTOGRAPH
Snowtill 40 Richard Brann Drive Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

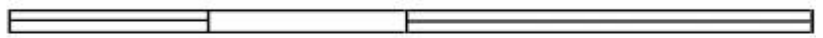
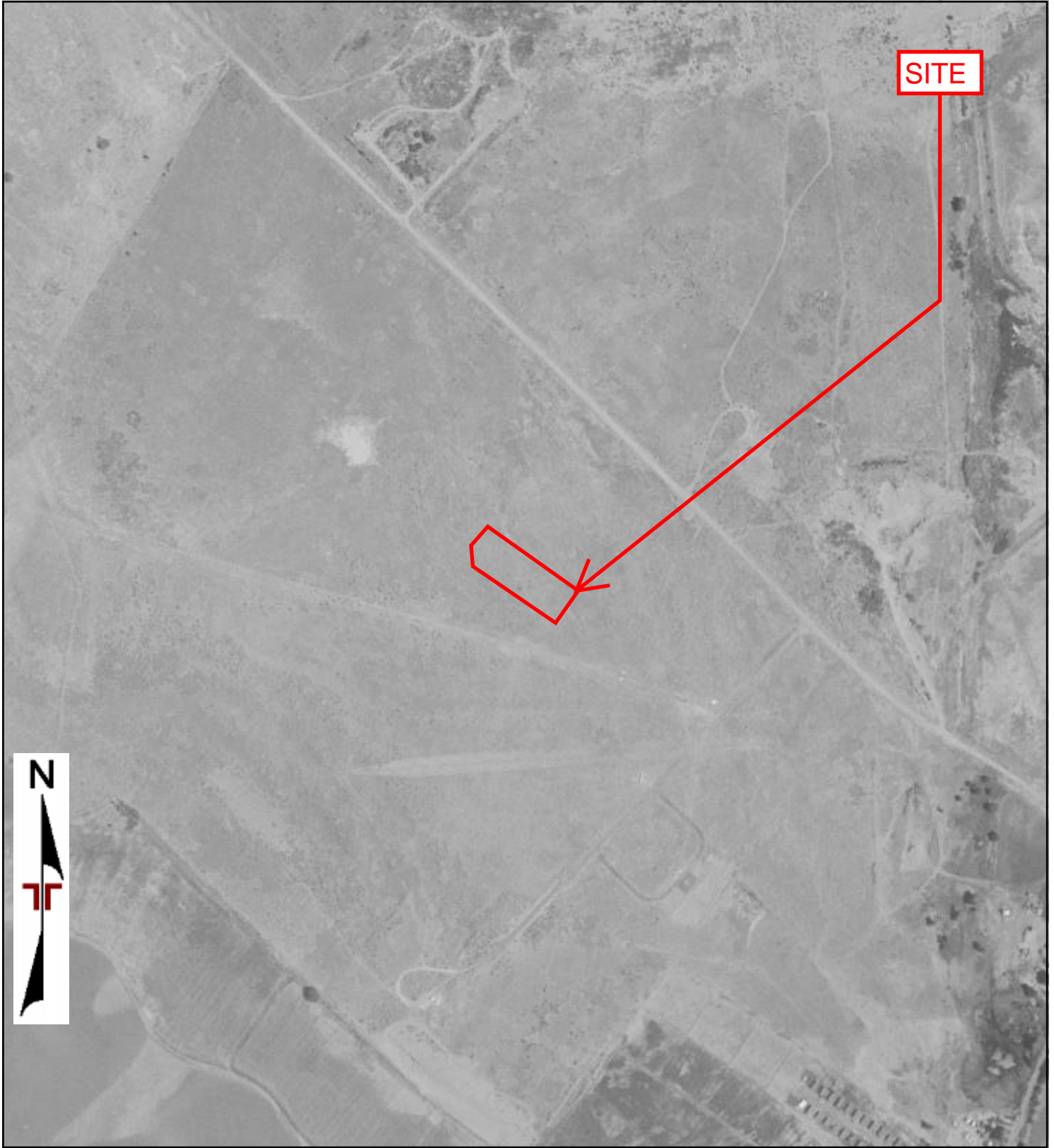
2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1957

Terracon
902 Industrial Way
LODI, CA 95240

1957 AERIAL PHOTOGRAPH
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



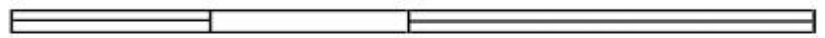
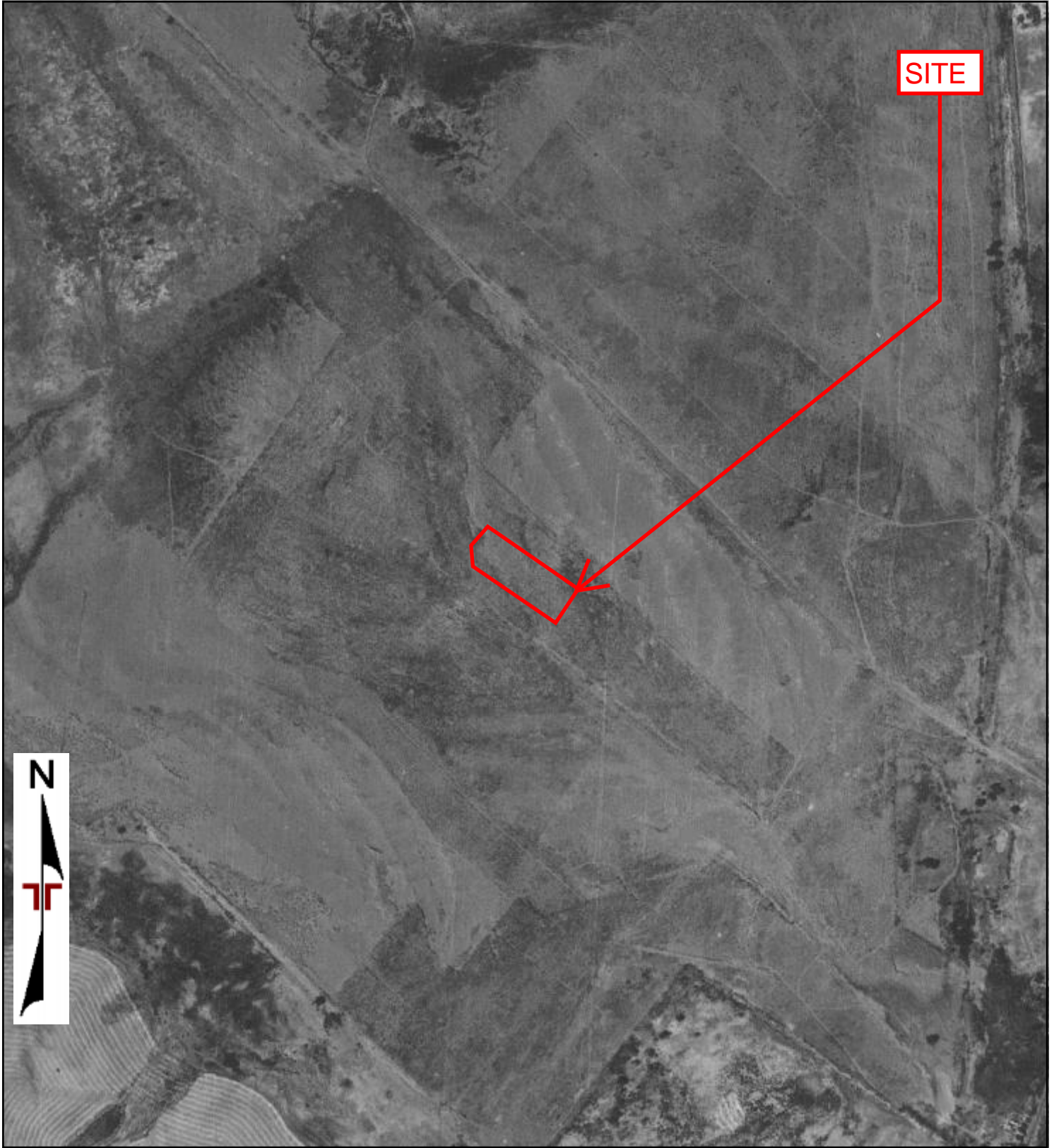
0 Feet 500 1000 2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1952


 902 Industrial Way
 LODI, CA 95240

1952 AERIAL PHOTOGRAPH
 Snowtill
 40 Richard Brann Drive
 Rio Vista, CA 94571

Appendix
C



0 Feet

500

1000

2000

Project Manager	Project No: NA207008
Drawn By:	Scale: As Shown
Checked By:	File Name:
Approved By:	Date: 1937

Terracon
902 Industrial Way
LODI, CA 95240

1937 AERIAL PHOTOGRAPH
Snowtill
40 Richard Brann Drive
Rio Vista, CA 94571

Appendix
C



Snowtill

Industrial Court

Rio Vista, CA 94571

Inquiry Number: 5964900.3

February 07, 2020

Certified Sanborn® Map Report



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

02/07/20

Site Name:

Snowtil
Industrial Court
Rio Vista, CA 94571
EDR Inquiry # 5964900.3

Client Name:

Terracon
902 Industrial Way
LODI, CA 95240
Contact: Tammy Woods



The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Terracon were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 514C-4DB9-AF31
PO # NA
Project NA207008



Sanborn® Library search results

Certification #: 514C-4DB9-AF31

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

The Sanborn Library LLC Since 1866™

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Snowtill

Industrial Court
Rio Vista, CA 94571

Inquiry Number: 5964900.5
February 11, 2020

The EDR-City Directory Image Report

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SECTION

Executive Summary

Findings

City Directory Images

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with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Target Street</u>	<u>Cross Street</u>	<u>Source</u>
2014	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2010	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2005	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
2000	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1995	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1992	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
1987	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EDR Digital Archive
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1982	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1977	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Haines Criss-Cross Directory
1972	<input type="checkbox"/>	<input type="checkbox"/>	Haines Criss-Cross Directory

FINDINGS

TARGET PROPERTY STREET

Industrial Court
Rio Vista, CA 94571

Year CD Image Source

INDUSTRIAL CT

2014	-	EDR Digital Archive	Street not listed in Source
2010	-	EDR Digital Archive	Street not listed in Source
2005	-	EDR Digital Archive	Street not listed in Source
2000	-	EDR Digital Archive	Street not listed in Source
1995	-	EDR Digital Archive	Street not listed in Source
1992	-	EDR Digital Archive	Street not listed in Source
1987	-	Haines Criss-Cross Directory	Street not listed in Source
1982	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1972	-	Haines Criss-Cross Directory	Street not listed in Source

FINDINGS

CROSS STREETS

<u>Year</u>	<u>CD Image</u>	<u>Source</u>	
<u>AIRPORT RD</u>			
2014	pg. A1	EDR Digital Archive	
2010	pg. A3	EDR Digital Archive	
2005	pg. A5	EDR Digital Archive	
2000	pg. A7	EDR Digital Archive	
1995	pg. A9	EDR Digital Archive	
1992	pg. A10	EDR Digital Archive	
1987	pg. A11	EDR Digital Archive	
1982	pg. A12	Haines Criss-Cross Directory	
1977	pg. A13	Haines Criss-Cross Directory	
1972	-	Haines Criss-Cross Directory	Street not listed in Source

POPPY HOUSE RD

2014	pg. A2	EDR Digital Archive	
2010	pg. A4	EDR Digital Archive	
2005	pg. A6	EDR Digital Archive	
2000	pg. A8	EDR Digital Archive	
1995	-	EDR Digital Archive	Target and Adjoining not listed in Source
1992	-	EDR Digital Archive	Target and Adjoining not listed in Source
1987	-	Haines Criss-Cross Directory	Street not listed in Source
1982	-	Haines Criss-Cross Directory	Street not listed in Source
1977	-	Haines Criss-Cross Directory	Street not listed in Source
1972	-	Haines Criss-Cross Directory	Street not listed in Source

City Directory Images

AIRPORT RD 2014

551 DELTA WELL SERVICE
GOMES WARREN E EXCAVATING INC
INSTRUMENT CONTROL CO
OCCUPANT UNKNOWN,
WMW PROPERTIES LLC

553 A R SERVICE SHOP
DICK BROWN TECHNICAL SERVICES

554 BOURDO, JENNIFER
MCVAY, J A
PEREZ, ELIDA E

590 KENNEDY, JANET
RIO VISTA MINI STORAGE

618 LIRAS WELDING SERVICE
OCCUPANT UNKNOWN,

628 MCCLAIN JOHN C
NAPA RIO VISTA AUTOMOTIVE

1015 ALLAN FARMER TRUCKING
B & L CASING
CALIFORNIA VLY BROADBAND LLC
DAVIS, REBECCA
JAYS RIO VISTA TOWING
MORENO TRENCHING LTD
MT2 TELECOM LP
WIND SWEEP NURSERY

1031 CROSS CNTRY HRIZONTAL DRLG INC

1105 CAT RENTAL STORE HOLT CAL
D AND S PRESS
INSTRAP INC
NELSON DRILLING TOOLS LLC
RIO VISTA MUFFLER HITCH & WLDG

1604 AIRPORT ROD SELF STORAGE
OCCUPANT UNKNOWN,

2360 DOLES OILFIELD & INDUSTRIAL S
HAMILTON DAVID C JR
SHAFFER OIL TOOL SERVICES INC

2500 PAUL GRAHAM DRILLING & SVC CO
SNADEN ISLAND LLC

3000 VEOLIA WATER NORTH AMERICA OPE

POPPY HOUSE RD 2014

15	CALIFORNIA VEGETABLE SPC INC
50	RIO VISTA CITY HALL

AIRPORT RD 2010

551 BRUCE SERVICE COMPANY
GOMES WARREN E EXCAVATING INC
OCCUPANT UNKNOWN,
WMW PROPERTIES LLC

553 A R SERVICE SHOP
DICK BROWN TECHNICAL SERVICES
T K OPERATIONS

590 OCCUPANT UNKNOWN,
RIO VISTA MINI STORAGE

618 BAKER HUGHES OILFLD OPERATIONS
OCCUPANT UNKNOWN,
SMITH INTERNATIONAL INC

628 LIRAS WELDING SERVICE
NAPA RIO VISTA AUTOMOTIVE

641 AGGRESSIVE FAB MACHINE INC

933 GALINDO CONSTRUCTION CO INC

1015 B & L CASING
CALIFORNIA VLY BROADBAND LLC
JAYS RIO VISTA TOWING
KELETT CONSULTING SERVICES LLC
MORENO TRENCHING LTD
WIND SWEEP NURSERY

1031 CROSS CNTRY HRIZONTAL DRLG INC
WEST COAST RENTALS INC

1105 CAT RENTAL STORE HOLT CAL
HEALTHY PARTNERSHIPS INC
NELSON DRILLING TOOLS LLC
RIO VISTA MUFFLER HITCH & WLDG

1107 CASTLE MINERALS

1604 AIRPORT ROD SELF STORAGE
STARLING, WYATT

2360 DELTA FIRE EQUIPMENT CO
DOLES OILFIELD & INDUSTRIAL S
HAMILTON DAVID C JR
HAMILTON, DAVE
SHAFFER OIL TOOL SERVICES INC

2452 RIO VISTA ALIGNMENT SERVICE

2500 HOBBY ENERGY LLC
PAUL GRAHAM DRILLING & SVC CO
SNADEN ISLAND LLC

2522 GRAHAM PAUL TRUCKING

POPPY HOUSE RD 2010

15	CALIFORNIA VEGETABLE SPC INC
50	RIO VISTA CITY HALL

AIRPORT RD 2005

551 BRUCE SERVICE COMPANY
GOMES WARREN E EXCAVATING

553 AR SERVICE SHOP
DICK BROWN TECHNICAL SERVICES
T K OPERATIONS

554 DICKERSON, CHRISTY A

590 OCCUPANT UNKNOWN,
RIO VISTA MINI STORAGE

618 BAKER HUGHES OILFLD OPERATIONS
NELSON TOM
OCCUPANT UNKNOWN,

628 LIRAS WELDING SERVICE
NAPA RIO VISTA AUTOMOTIVE

641 AGGRESSIVE FAB MACHINE INC

707 LAPP ROBERT

933 GALINDO CONSTRUCTION COMPANY

1015 KELETT CONSULTING SERVICES LLC
MORENO TRENCHING LTD
OXY RESOURCES OF CA LLC
WIND SWEEP NURSERY

1105 CAT RENTAL STORE-HOLT CALIF
HILL TRANSFER SERVICE
RIO VISTA MUFFLER HITCH & WLDG

1604 AIRPORT ROD SELF STORAGE
OCCUPANT UNKNOWN,

2360 DELTA FIRE EQUIPMENT CO
HAMILTON DAVID C JR
HAMILTON, DAVE
NORTHWEST TOOL CO
RIO VISTA PLASTICS INC
SHAFFER OIL TOOL SERVICES

2452 RIO VISTA ALIGNMENT SERVICE

2522 GRAHAM PAUL TRUCKING

2587 OCCUPANT UNKNOWN,

2623 OCCUPANT UNKNOWN,

POPPY HOUSE RD 2005

15 CALIFORNIA VEGETABLE SPC

AIRPORT RD 2000

551	BRUCE SERVICE COMPANY GOMES WARREN E EXCAVATING
554	BEATTY, KENDRA
590	OCCUPANT UNKNOWN, RIO VISTA MINI STORAGE
618	BAKER HUGHES OILFLD OPERATIONS NELSON TOM
628	LIRAS WELDING SERVICE NICKS TOWING
641	AGGRESSIVE FAB MACHINE INC
933	GALINDO CONSTRUCTION COMPANY
1015	GRAHAM JIM INC MORENO TRENCHING LTD
1031	AEROPLANE WORKS THE INC
1105	INSTRAT INC
2360	AMMA ROBERT MCHY & PLAS CO BERGQUIST CRAIG AND JANET DELTA FIRE EQUIPMENT CO HAMILTON DAVID C JR RIO VISTA PLASTICS RIO VISTA PLASTICS INC RTS SHAFFER OIL TOOL SERVICES TERRAN ALLIANCE LTD VAUGHT, DENNIS
2452	MOATS, MARVIN RIO VISTA ALIGNMENT SERVICE TAYLOR MADE CATERING
2522	D L H ELECTRIC LLP

POPPY HOUSE RD 2000

- 15 CALIFORNIA VEGETABLE SPC
- 19 JOHNS LOCKSMITHING & SHA
- 23 CALIFORNIA ENTERPRISES

AIRPORT RD 1995

551	BRUCE SERVICE COMPANY
	GOMES WARREN E EXCAVATING
554	MCCRAW, SUSAN
590	LENCIONI, LOUIS
	RIO VISTA MINI STORAGE
618	BAKER HUGHES OILFLD OPERATIONS
	NELSON DRILLING TOOLS
628	LIRAS WELDING SERVICE
	MAJOULET FINE WOODWORKING
641	AA PRODUCTION SERVICES INC
	SAN ANDREAS SERVICE COMPANY
930	ALEXANDER FLYING SERVICE INC
933	ALEXANDER AG FLYING SERVICE
1015	GRAHAM JIM INC
	MORENO TRENCHING LTD
1031	AEROPLANE WORKS INC
	AEROPLANE WORKS THE INC
2360	AMMA ROBERT MCHY & PLAS CO
	DE WITT JOHN N TRUCKING INC
	SELECT WIRELINE SERVICES INC
	SHAFFER OIL TOOL SERVICES
2522	MASTER TRAILERS INC
2542	J G SERVICE CO INC

-



AIRPORT RD 1992

551 BRUCE SERVICE COMPANY
GOMES BRUCE PROPERTIES
GOMES WARREN E EXCAVATING
554 FERNANDEZ, FRED
618 NELSON DRILLING TOOLS
628 FANATIC LTD
LIRAS WELDING SERVICE
641 AA PRODUCTION SERVICES INC
SAN ANDREAS SERVICE COMPANY
933 ALEXANDER AG FLYING SERVICE
1031 AEROPLANE WORKS INC
AEROPLANE WORKS THE INC
2360 BUCKS CRANE SERVICE
CONTOUR CABINETS
DE WITT JOHN N TRUCKING
DONS WELDING SERVICE
SELECT WIRELINE SERVICES INC
SHAFFER OIL TOOL SERVICES
STRIKE-N-ARC WELDING
2452 MCPHERSON CRANE & RIGGING
2522 MASTER TRAILERS INC
2542 J G SERVICE CO INC

-



AIRPORT RD 1987

551	BRUCE SERVICE COMPANY GOMES BRUCE PROPERTIES GOMES WARREN E EXCAVATING
641	BILLS SERVICE CO INC LIRAS WELDING SERVICE
933	ALEXANDER AG FLYING SERVICE
1031	AEROPLANE WORKS INC THE AEROPLANE WORKS THE INC
2360	BUCKS CRANE SERVICE SELECT WIRE LINE SERVICES INC SHAFCO INDUSTRIES INC
2422	LANDI W F INC
2542	J G SERVICE CO INC OWENS JACK SERVICE CO INC

AIRPORT RD 1982

AIRPORT RD 9457 1

RIO VISTA

25	PUCCI&PUCCI	374-5793	+2
35	BRUCE SERVICE CO	374-5459	8
	DREDGING EQUIPMENT	374-5662	9
	GOMES ELROY TRUCKIN	374-5389	1
	GOMES W E EXCAVATIN	374-2881	1
	GOMES WARREN EXVTG	374-2883	0
50	FERNANDEZ J C	374-5944	+2
	HAYES JOHN	374-2645	1
	LANDI RAY	374-5225	1
	STANLEY DARLENE	374-2645	1
	TUCKER ORVAL C	374-5080	+2
301	RIO VISTA CITY DUMP	374-5678	7
397	SEISDATA SERVICES	374-6480	+2
D	OTIS ENGINEERING	374-5998	+2
G	JET ELECTRONICS	374-5691	+2
399	BAROID	374-5415	8
	DEWITT TRUCKING	374-5415	8
401	OWENS JACK SERV CO	374-5726	9
415	LANDI W F INC	374-5051	0
440	GALINDO LAVERNA	374-5315	
450	XXXX	00	
690	AEROPLANE WORKS THE	374-6391	9
	THE AEROPLANE WORKS	374-6391	9
3971	RIVER CITY DIESEL R	374-6476	+2
NO #	DELGADO FRANK	374-2666	
NO #	DELTA OIL TOOLS	374-6732	9
NO #	DRILTROL	374-6732	
NO #	WILSON IRRIGATION&P	374-5920	+2
★	20 BUS	8 RES	8 NEW

AIRPORT RD 1977

AIRPORT RD 94571 RIO VISTA

25*	BRUCE SERVICE CO	374-5459
50	LINDSEY JOE	374-5692+7
	POE HUBERT L	374-2550 6
301*	RIO VISTA CITY DUMP	374-5678+7
401*	OWENS JACK SERV CO	374-6618
440	GALINDO DON R	374-5315
450	TILLSON BILLYE	374-6489 6
NO #	DELGADO FRANK	374-2666
NO #*	GRAY TOOL CO	374-6705
NO #*	RIO VISTA AIRPORT	374-9998
NO #*	RIO VISTA AVIATION	374-5628+7
NO #*	WILSON TOOL CO	374-2633 6
*	7 BUS 5 RES	3 NEW

Preliminary Report Top Sheet

◆ HELP US STAY ON TOP OF YOUR TRANSACTION ◆

IF ANY OF THESE QUESTIONS ARE ANSWERED “YES”, OR IF YOU HAVE QUESTIONS ABOUT THE BELOW, PLEASE CONTACT YOUR ESCROW OFFICER IMMEDIATELY

- ◆ Have any of the principals recently filed bankruptcy?
- ◆ Do any of the principals plan to use a power of attorney?
- ◆ Are any of the principals going through a divorce? (if so, is there an attorney involved?)
- ◆ Is anyone currently vested in title deceased? Has a new Tax I.D. Number been established?
- ◆ Do any of the principals NOT have a valid photo identification?
- ◆ Is there construction work in progress or incomplete construction?
 - Any construction completed in the last year?
 - Any construction completed in the last 4 months?
- ◆ Is there a mobile or manufactured home on the property?
- ◆ Are the sellers a non-resident alien or a foreign out of country seller?
- ◆ Is the property an investment property or not considered seller's principal residence?
- ◆ Will a new entity be formed? (i.e. Partnership, LLC, Corporation)
- ◆ If your principals are currently vested or are taking title in their trust, have bank accounts been established in the name of the Trust?
- ◆ Will any of the principals be participating in a 1031 Exchange?
- ◆ Are any of the principals not able to sign with a Placer Title Company? If so, an approved notary will be required.

THANK YOU FOR CHOOSING

Placer Title Company



PLACER TITLE COMPANY
A MOTHER LODE COMPANY

Placer Title Company
1300 Oliver Rd., Suite 120
Fairfield, CA 94534
Phone: (707)429-2211
Fax: (707) 429-1230

Order No.: P-373592
Reference:
Escrow Officer: Laura Vierra
Email: TeamVierra@placertitle.com
Email Loan Docs To: lvierra@placertitle.com

Proposed Insured:
Proposed Loan Amount:

Proposed Underwriter: Old Republic National Title Insurance Company

Property Address: A.P.N. 0178-230-180, Rio Vista, CA 94571

PRELIMINARY REPORT

In response to the above referenced application for a policy of title insurance, Placer Title Company hereby reports that it is prepared to issue, or cause to be issued, as of the date hereof, a Policy or Policies of Title Insurance describing the land and the estate or interest therein hereinafter set forth, insuring against loss which may be sustained by reason of any defect, lien or encumbrance not shown or referred to as an Exception below or not excluded from coverage pursuant to the printed Schedules, Conditions and Stipulations of said Policy forms.

The printed Exceptions and Exclusions from the coverage and Limitations on Covered Risks of said Policy or Policies are set forth in Attachment One. The policy to be issued may contain an arbitration clause. When the Amount of Insurance is less than that set forth in the arbitration clause, all arbitrable matters shall be arbitrated at the option of either the Company or the Insured as the exclusive remedy of the parties. Limitations on Covered Risks applicable to the CLTA and ALTA Homeowner's Policies of Title Insurance which establish a Deductible Amount and a Maximum Dollar Limit of Liability for certain coverages are also set forth in Attachment One. Copies of the policy forms should be read. They are available from the office which issued this report.

Please read the exceptions shown or referred to below and the exceptions and exclusions set forth in Attachment One of this report carefully. The exceptions and exclusions are meant to provide you with notice of matters which are not covered under the terms of the title insurance policy and should be carefully considered.

It is important to note that this preliminary report is not a written representation as to the condition of title and may not list all liens, defects, and encumbrances affecting title to the land.

This report (and any supplements or amendments hereto) is issued solely for the purpose of facilitating the issuance of a policy of title insurance and no liability is assumed hereby. If it is desired that liability be assumed prior to the issuance of a policy of title insurance, a Binder or Commitment should be requested.

Dated: December 27, 2019 at 7:30AM
Title Officer: Phillip Kelly

The form of policy of title insurance contemplated by this report is:

2006 ALTA Standard Owners Policy

The estate or interest in the land hereinafter described or referred to covered by this report is:

Fee Simple

Title to said estate or interest at the date hereof is vested in:

City of Rio Vista, a municipal corporation

The land referred to in this report is described as follows:

See Exhibit "A" Attached for Legal Description

Exhibit "A"

Legal Description

The land described herein is situated in the State of California, County of Solano, City of Rio Vista, described as follows:

Parcel 12, as shown on that certain map entitled: "Parcel Map of A Portion of Tract 3, 4, & 5 of Rancho Los Ulpinos or Bidwell Grant, Solano County, California, Rio Vista Business Park", filed in the office of the Recorder of Solano County, California, in Book 52 of Parcel Maps, Pages 22 - 28.

Excepting therefrom all oil, gas, oil shale, coal, phosphate, sodium, gold, silver and all other mineral deposits, whether similar to those specified herein or not, in, on or under the surface of the said land granted herein or any part of said land, including all rights of ownership therein, and reserving the right of exploring and prospecting for, mining developing and operating for any or all of said products upon the said land together with all incidents necessary thereto which an owner of real property may or might exercise upon his own land, having fee title thereto, by deed recorded November 7, 1952, Book 642, Page 373, as Instrument No. 15676, Solano County Records.

APN: 0178-230-180

EXCEPTIONS

At the date hereof, exceptions to coverage in addition to the printed Exceptions and Exclusions in said policy form would be as follows:

- 1. Taxes, special and general, assessment districts and service areas for the fiscal year 2020-2021, a lien not yet due or payable.
- 2. The lien of supplemental taxes, if any, assessed pursuant to the provisions of Chapter 3.5, (commencing with Section 75) of the Revenue and Taxation Code, of the State of California.
- 3. The terms, conditions and provisions as contained in the document entitled "Agreement", by and between Sacramento and San Joaquin Drainage District and Calaveras Cement Company, dated March 28, 1940, recorded April 18, 1940, as [\(book\) 212 \(page\) 595](#), Official Records.
- 4. Rights incidental to the ownership for the use and development of the mineral interests reserved in Deed executed by Sacramento and San Joaquin Drainage District, recorded November 7, 1952, [\(book\) 642 \(page\) 373](#), Official Records.

Mineral rights not shown further.

As amended by "Correction Deed" recorded January 17, 1970, [\(book\) 1638 \(page\) 686](#), Official Records.

As amended by "Correction Deed" recorded January 10, 2013, [\(instrument\) 20130003437](#), Official Records.

- 5. Easements over said land for public utilities and incidental purposes, in favor of Pacific Gas and Electric Company, as disclosed in deed recorded November 7, 1952, [\(book\) 642 \(page\) 373](#), Official Records.

Affects: the exact extent and location is not disclosed of record

No representation is made as to the current ownership of said easement.

- 6. An easement for the purpose shown below and rights incidental thereto as shown or as offered for dedication on the recorded map shown below:

Map Of: Parcel Map
 Recorded: (book) 52 of Parcel Maps, (page) 22
 Purpose: Public Utility Easement
 Affects: 10' portions of the premises lying adjacent and contiguous to the street

Purpose: Sanitary Sewer Easement
 Affects: Easterly and Southeasterly 10' portions of the premises

- 7. We find no open deeds of trust of record. Escrow please confirm before closing.

***** SPECIAL INFORMATION *****

*** CHAIN OF TITLE REPORT:

According to the public records, no deeds conveying the property described in this report have been recorded within a period of 2 years prior to the date of this report, except as shown herein: NONE

***** LENDER'S SUPPLEMENTAL ADDRESS REPORT:**

The above numbered report is hereby modified and/or supplemented to reflect the following additional items relating to the issuance of an American Land Title Association Loan Form Policy:

Placer Title Company states that the herein described property is Governmental & Miscellaneous and that the property address is:

A.P.N. 0178-230-180, Rio Vista, CA 94571

*****NOTICE REGARDING MAPS**

Any maps provided herewith are for reference only. The property and/or easements shown are but approximations, and no assurances are given as to accuracy, reliability, dimensions or acreage. This will not limit the coverage provided by a CLTA 116, 116.1 or 116.03 endorsement if issued to the policy.

***** NOTICE REGARDING FUNDS DEPOSITED IN ESCROW:**

IMPORTANT NOTICE- ACCEPTABLE TYPE OF FUNDS

Please be advised that in accordance with the provisions of the California Insurance Code, Section 12413.1, any funds deposited for the closing must be deposited into the escrow depository and cleared prior to disbursement. Funds deposited by wire transfer may be disbursed upon receipt. Funds deposit via cashier's checks drawn on a California based bank may be disbursed the next business day. If funds are deposited with the Company by other methods, recording and/or disbursement may be delayed.

IMPORTANT NOTE: PLEASE BE ADVISED THAT ESCROW HOLDER DOES NOT ACCEPT CASH, MONEY ORDERS, ACH TRANSFERS, OR FOREIGN CHECKS.

PLEASE CONTACT ESCROW REGARDING QUESTIONS ON TYPE OF FUNDS REQUIRED IN ORDER TO FACILITATE THE PROMPT CLOSING OF THIS TRANSACTION.

NOTE: If you intend to remit multiple cashier's checks to close your escrow (which may or may not include gift funds or third party funds) IRS cash reporting under IRS Code 8300 may be required. For this reason, you may wish to consider wiring funds in lieu of remitting cashier's checks.

***** DISCLOSURE OF DISCOUNTS *****

You may be entitled to a discount on your title premiums and/or escrow fees if you meet any of the following conditions:

1. You are an employee of the title insurer or Placer Title Company and the property is your primary residence; or
2. The transaction is a loan, the purpose of which is to rebuild the improvements on the property as a result of a governmentally declared disaster; or
3. The property is being purchased or encumbered by a religious, charitable or nonprofit organization for its use within the normal activities for which such entity was intended.

Please advise the company if you believe any of the above discounts apply.

***** LENDER'S NOTE *****

In accordance with Executive Order 13224, and the USA Patriot Act, **PLACER TITLE COMPANY** compares the names of parties to the proposed transaction to the Specially Designated Nationals and Blocked Persons (SDN List) maintained by the United States Office of Foreign Asset Control.

***** BUYER'S NOTE *****

If an ALTA Residential Owner's Policy is requested and if the property described herein is determined to be eligible for this policy, the following Exceptions From Coverage will appear in the policy:

1. Taxes or assessments which are not shown as liens by the public records or by the records of any taxing authority.
2. (a) Water rights, claims or title to water; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) unpatented mining claims; whether or not the matters exception under (a), (b) or (c) are shown by the public records.
3. Any rights, interest or claims of parties in possession of the land which are not shown by the public records.
4. Any easements or liens not shown by the public records. This exception does not limit the lien coverage in Item 8 of the Covered Title Risks.
5. Any facts about the land which a correct survey would disclose and which are not shown by the public records. This exception does not limit the forced removal coverage in Item 12 of the Covered Title Risks.

CLTA PRELIMINARY REPORT FORM
Attachment One (Rev 06-05-14)
CALIFORNIA LAND TITLE ASSOCIATION STANDARD COVERAGE POLICY - 1990
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance or governmental regulation (including but not limited to building or zoning laws, ordinances, or regulations) restricting, regulating, prohibiting or relating (i) the occupancy, use, or enjoyment of the land; (ii) the character, dimensions or location of any improvement now or hereafter erected on the land; (iii) a separation in ownership or a change in the dimensions or area of the land or any parcel of which the land is or was a part; or (iv) environmental protection, or the effect of any violation of these laws, ordinances or governmental regulations, except to the extent that a notice of the enforcement thereof or a notice of a defect, lien, or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
(b) Any governmental police power not excluded by (a) above, except to the extent that a notice of the exercise thereof or notice of a defect, lien or encumbrance resulting from a violation or alleged violation affecting the land has been recorded in the public records at Date of Policy.
2. Rights of eminent domain unless notice of the exercise thereof has been recorded in the public records at Date of Policy, but not excluding from coverage any taking which has occurred prior to Date of Policy which would be binding on the rights of a purchaser for value without knowledge.
3. Defects, liens, encumbrances, adverse claims or other matters:
 - (a) whether or not recorded in the public records at Date of Policy, but created, suffered, assumed or agreed to by the insured claimant;
 - (b) not known to the Company, not recorded in the public records at Date of Policy, but known to the insured claimant and not disclosed in writing to the Company by the insured claimant prior to the date the insured claimant became an insured under this policy;
 - (c) resulting in no loss or damage to the insured claimant;
 - (d) attaching or created subsequent to Date of Policy; or
 - (e) resulting in loss or damage which would not have been sustained if the insured claimant had paid value for the insured mortgage or for the estate or interest insured by this policy.
4. Unenforceability of the lien of the insured mortgage because of the inability or failure of the insured at Date of Policy, or the inability or failure of any subsequent owner of the indebtedness, to comply with the applicable doing business laws of the state in which the land is situated.
5. Invalidity or unenforceability of the lien of the insured mortgage, or claim thereof, which arises out of the transaction evidenced by the insured mortgage and is based upon usury or any consumer credit protection or truth in lending law.
6. Any claim, which arises out of the transaction vesting in the insured the estate of interest insured by this policy or the transaction creating the interest of the insured lender, by reason of the operation of federal bankruptcy, state insolvency or similar creditors' rights laws.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I

This policy does not insure against loss or damage (and the Company will not pay costs, attorneys' fees or expenses) which arise by reason of:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the public records.
Proceedings by a public agency which may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the public records.

EXCEPTIONS FROM COVERAGE - SCHEDULE B, PART I (continued)

2. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of the land or which may be asserted by persons in possession thereof.
3. Easements, liens or encumbrances, or claims thereof, not shown by the public records.
4. Discrepancies, conflicts in boundary lines, shortage in area, encroachments, or any other facts which a correct survey would disclose, and which are not shown by the public records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b) or (c) are shown by the public records.
6. Any lien or right to a lien for services, labor or material not shown by the public records.

CLTA/ALTA HOMEOWNER'S POLICY OF TITLE INSURANCE (12-02-13) EXCLUSIONS

In addition to the Exceptions in Schedule B, You are not insured against loss, costs, attorneys' fees, and expenses resulting from:

1. Governmental police power, and the existence or violation of those portions of any law or government regulation concerning: a) building; b) zoning; c) land use; d) improvements on the Land; e) land division; and f) environmental protection. This Exclusion does not limit the coverage described in Covered Risk 8.a., 14, 15, 16, 18, 19, 20, 23 or 27.
2. The failure of Your existing structures, or any part of them, to be constructed in accordance with applicable building codes. This Exclusion does not limit the coverage described in Covered Risk 14 or 15.
3. The right to take the Land by condemning it. This Exclusion does not limit the coverage described in Covered Risk 17.
4. Risks: a) that are created, allowed, or agreed to by You, whether or not they are recorded in the Public Records; b) that are Known to You at the Policy Date, but not to Us, unless they are recorded in the Public Records at the Policy Date; c) that result in no loss to You; or d) that first occur after the Policy Date - this does not limit the coverage described in Covered Risk 7, 8.e., 25, 26, 27 or 28.
5. Failure to pay value for Your Title.
6. Lack of a right: a) to any land outside the area specifically described and referred to in paragraph 3 of Schedule A; and b) in streets, alleys, or waterways that touch the Land. This Exclusion does not limit the coverage described in Covered Risk 11 or 21.
7. The transfer of the Title to You is invalid as a preferential transfer or as a fraudulent transfer or conveyance under federal bankruptcy, state insolvency, or similar creditors' rights laws.
8. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
9. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

LIMITATIONS ON COVERED RISKS

Your insurance for the following Covered Risks is limited on the Owner's Coverage Statement as follows:

- For Covered Risk 16, 18, 19, and 21 Your Deductible Amount and Our Maximum Dollar Limit of Liability shown in Schedule A.

The deductible amounts and maximum dollar limits shown on Schedule A are as follows:

	Your Deductible Amount	Our Maximum Dollar Limit of Liability
Covered Risk 16:	1% of Policy Amount or \$2,500.00 (whichever is less)	\$10,000.00
Covered Risk 18:	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 19:	1% of Policy Amount or \$5,000.00 (whichever is less)	\$25,000.00
Covered Risk 21:	1% of Policy Amount or \$2,500.00 (whichever is less)	\$5,000.00

**2006 ALTA LOAN POLICY (06-17-06)
EXCLUSIONS FROM COVERAGE**

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;
 or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
 (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 13, or 14); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury or any consumer credit protection or truth-in-lending law.
6. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 13(b) of this policy.

EXCLUSIONS FROM COVERAGE (continued)

7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the Insured Mortgage in the Public Records. This Exclusion does not modify or limit the coverage provided under Covered Risk 11(b).

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown by the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.

2006 ALTA OWNER'S POLICY (06-17-06) EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy, and the Company will not pay loss or damage, costs, attorneys' fees, or expenses that arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5.
- (b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 6.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.

EXCLUSIONS FROM COVERAGE (continued)

3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 9 and 10); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Title.
4. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction vesting the Title as shown in Schedule A, is
 - (a) a fraudulent conveyance or fraudulent transfer; or
 - (b) a preferential transfer for any reason not stated in Covered Risk 9 of this policy.
5. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching between Date of Policy and the date of recording of the deed or other instrument of transfer in the Public Records that vests Title as shown in Schedule A.

The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

EXCEPTIONS FROM COVERAGE

This policy does not insure against loss or damage, and the Company will not pay costs, attorneys' fees or expenses, that arise by reason of:

[The above policy form may be issued to afford either Standard Coverage or Extended Coverage. In addition to the above Exclusions from Coverage, the Exceptions from Coverage in a Standard Coverage policy will also include the following Exceptions from Coverage:

1. (a) Taxes or assessments that are not shown as existing liens by the records of any taxing authority that levies taxes or assessments on real property or by the Public Records; (b) proceedings by a public agency that may result in taxes or assessments, or notices of such proceedings, whether or not shown by the records of such agency or by the Public Records.
2. Any facts, rights, interests, or claims that are not shown in the Public Records but that could be ascertained by an inspection of the Land or that may be asserted by persons in possession of the Land.
3. Easements, liens or encumbrances, or claims thereof, not shown by the Public Records.
4. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land and that are not shown by the Public Records.
5. (a) Unpatented mining claims; (b) reservations or exceptions in patents or in Acts authorizing the issuance thereof; (c) water rights, claims or title to water, whether or not the matters excepted under (a), (b), or (c) are shown by the Public Records.
6. Any lien or right to a lien for services, labor or material not shown by the Public Records.
7. [Variable exceptions such as taxes, easements, CC&R's, etc. shown here.]

ALTA EXPANDED COVERAGE RESIDENTIAL LOAN POLICY (12-02-13)
EXCLUSIONS FROM COVERAGE

The following matters are expressly excluded from the coverage of this policy and the Company will not pay loss or damage, costs, attorneys' fees or expenses which arise by reason of:

1. (a) Any law, ordinance, permit, or governmental regulation (including those relating to building and zoning) restricting, regulating, prohibiting, or relating to
 - (i) the occupancy, use, or enjoyment of the Land;
 - (ii) the character, dimensions, or location of any improvement erected on the Land;
 - (iii) the subdivision of land; or
 - (iv) environmental protection;or the effect of any violation of these laws, ordinances, or governmental regulations. This Exclusion 1(a) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
(b) Any governmental police power. This Exclusion 1(b) does not modify or limit the coverage provided under Covered Risk 5, 6, 13(c), 13(d), 14 or 16.
2. Rights of eminent domain. This Exclusion does not modify or limit the coverage provided under Covered Risk 7 or 8.
3. Defects, liens, encumbrances, adverse claims, or other matters
 - (a) created, suffered, assumed, or agreed to by the Insured Claimant;
 - (b) not Known to the Company, not recorded in the Public Records at Date of Policy, but Known to the Insured Claimant and not disclosed in writing to the Company by the Insured Claimant prior to the date the Insured Claimant became an Insured under this policy;
 - (c) resulting in no loss or damage to the Insured Claimant;
 - (d) attaching or created subsequent to Date of Policy (however, this does not modify or limit the coverage provided under Covered Risk 11, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27 or 28); or
 - (e) resulting in loss or damage that would not have been sustained if the Insured Claimant had paid value for the Insured Mortgage.
4. Unenforceability of the lien of the Insured Mortgage because of the inability or failure of an Insured to comply with applicable doing-business laws of the state where the Land is situated.
5. Invalidity or unenforceability in whole or in part of the lien of the Insured Mortgage that arises out of the transaction evidenced by the Insured Mortgage and is based upon usury, or any consumer credit protection or truth-in-lending law. This Exclusion does not modify or limit the coverage provided in Covered Risk 26.
6. Any claim of invalidity, unenforceability or lack of priority of the lien of the Insured Mortgage as to Advances or modifications made after the Insured has Knowledge that the vestee shown in Schedule A is no longer the owner of the estate or interest covered by this policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11.
7. Any lien on the Title for real estate taxes or assessments imposed by governmental authority and created or attaching subsequent to Date of Policy. This Exclusion does not modify or limit the coverage provided in Covered Risk 11(b) or 25.
8. The failure of the residential structure, or any portion of it, to have been constructed before, on or after Date of Policy in accordance with applicable building codes. This Exclusion does not modify or limit the coverage provided in Covered Risk 5 or 6.
9. Any claim, by reason of the operation of federal bankruptcy, state insolvency, or similar creditors' rights laws, that the transaction creating the lien of the Insured Mortgage, is
 - (a) a fraudulent conveyance or fraudulent transfer, or
 - (b) a preferential transfer for any reason not stated in Covered Risk 27(b) of this policy.
10. Contamination, explosion, fire, flooding, vibration, fracturing, earthquake, or subsidence.
11. Negligence by a person or an Entity exercising a right to extract or develop minerals, water, or any other substances.

NOTICE
FEDERAL FOREIGN INVESTMENT IN REAL PROPERTY TAX ACT OF 1980 (FIRPTA)

Upon the sale of United States real property, by a non-resident alien, foreign corporation, partnership or trust, the Foreign Investment in Real Property Tax Act of 1980 (FIRPTA), and as revised by the Tax Reform Act of 1984 (26 USCA 897 (C)(1)(A)(1) and 26 USCA 1445), Revised by the Path Act of 2015, These changes may be reviewed in full in H.R. 2029, now known as Public Law 114-113. See Section 324 of the law for the full text of FIRPTA changes. Effective February 27, 2016, the amendments to FIRPTA contained in the PATH Act have increased the holdback rate from 10% of gross proceeds to 15% of gross proceeds of the sale, regardless of whether the actual tax due may exceed (or be less than) the amount withheld if ANY of the following conditions are met:

1. If the amount realized (generally the sales price) is \$300,000 or less, and the property will be used by the Transferee as a residence (as provided for in the current regulations), no monies need be withheld or remitted to the IRS.
 2. If the amount realized exceeds \$300,000 but does not exceed \$1,000,000, and the property will be used by the Transferee as a residence, (as provided for in the current regulations) then the withholding rate is 10% on the full amount realized (generally the sales prices)
 3. If the amount realized exceeds \$1,000,000, then the withholding rate is 15% on the entire amount, regardless of use by the Transferee. The exemption for personal use as a residence does not apply in this scenario.
- If the purchaser who is required to withhold income tax from the seller fails to do so, the purchaser is subject to fines and penalties as provided under Internal Revenue Code Section 1445.

Escrow Holder will, upon written instructions from the purchaser, withhold Federal Income Tax from the seller and will deposit said tax with the Internal Revenue Service, together with IRS Forms 8288 and 8288-A. The fee charged for this service is \$25.00 payable to the escrow holder.

CALIFORNIA WITHHOLDING

In accordance with Sections 18662 and 18668 of the Revenue and Taxation Code, a transferee (Buyer) may be required to withhold an amount equal to 3 1/3 percent of the sales price or an alternative withholding amount certified to by the seller in the case of a disposition of California real property interest by either:

1. A seller who is an individual or when the disbursement instructions authorize the proceeds to be sent to a financial intermediary or the seller,
OR
2. A corporate seller that has no permanent place of business in California.

The buyer may become subject to penalty for failure to withhold an amount equal to the greater of 10 percent of the amount required to be withheld or five hundred dollars (\$500).

However, notwithstanding any other provision included in the California statutes referenced above, no buyer will be required to withhold any amount or be subject to penalty for failure to withhold if:

1. The sales price of the California real property conveyed does not exceed one hundred thousand dollars (\$100,000.00), OR
2. The seller executes a written certificate, under the penalty of perjury, of any of the following:
 - a. The property qualifies as the seller's (or decedent's, if being sold by the decedent's estate) principal residence within the meaning of Internal Revenue Code (IRC) Section 121; or
 - b. The seller (or decedent, if being sold by the decedent's estate) last used the property as the seller's (decedent's) principal residence within the meaning of IRC Section 121 without regard to the two-year time period; or
 - c. The seller has a loss or zero gain for California income tax purposes on this sale; or
 - d. The property is being compulsorily or involuntarily converted and the seller intends to acquire property that is similar or related in service or use to qualify for non-recognition of gain for California income tax purposes under IRC Section 1033; or
 - e. If the transfer qualifies for non-recognition treatment under IRC Section 351 (transfer to a corporation controlled by the transferor) or IRC Section 721 (contribution to a partnership in exchange for a partnership interest); or
 - f. The seller is a corporation (or an LLC classified as a corporation for federal and California income tax purposes) that is either qualified through the California Secretary of State or has a permanent place of Business in California; or
 - g. The seller is a partnership (or an LLC that is not a disregarded single member LLC and is classified as a partnership for federal and California income tax purposes) with recorded title to the property in the name of the partnership of LLC; or
 - h. The seller is a tax-exempt entity under either California or federal law; or
 - i. The seller is an insurance company, individual retirement account, qualified pension/profit sharing plan, or charitable remainder trust; or
 - j. The transfer qualifies as a simultaneous like-kind exchange within the meaning of IRC Section 1031; or
 - k. The transfer qualifies as a deferred like-kind exchange within the meaning of IRC Section 1031; or
 - l. The transfer of this property will be an installment sale that you will report as such for California tax purposes and the buyer has agreed to withhold on each principal payment instead of withholding the full amount at the time of transfer.

The Seller is subject to penalty for knowingly filing a fraudulent certificate for the purpose of avoiding the withholding requirement.

NOTICE
DEPOSIT OF FUNDS AND DISBURSEMENT DISCLOSURE

Unless you elect otherwise (as described below), all funds received by (the "Company") in escrow will be deposited with other escrow funds in one or more non-interest bearing escrow accounts of the Company in a financial institution selected by the Company. The depositor acknowledges that the deposit of funds in a non-interest bearing demand account by Escrow Holder may result in said company receiving a range of economic benefits from the bank in the form of services, credits, considerations, or other things of value. The depositor hereby specifically waives any claim to such economic benefits payable to Escrow Holder resulting from non-interest bearing deposits. Unless you direct the Company to open an interest-bearing account (as described below), the Company shall have no obligation to account to you in any manner for the value of, or to compensate any party for, any benefit received by the Company and/or its affiliated company. Any such benefits shall be deemed additional compensation of the Company for its services in connection with the escrow.

If you elect, funds deposited by you prior to the close of escrow may be placed in an individual interest-bearing account arrangement that the Company has established with one of its financial institutions. You do not have an opportunity to earn interest on the funds deposited by a lender. If you elect to earn interest through this special account arrangement, the Company will charge you an additional fee of \$50.00 for the establishment and maintenance of the account. This fee compensates the Company for the costs associated with opening and managing the interest-bearing account, preparing correspondence/documentation, transferring funds, maintaining appropriate records for audit/reconciliation purposes, and filing any required tax withholding statements. It is important that you consider this cost in your decision since the cost may exceed the interest you earn.



**Placer Title Co., Montana Title and Escrow, National Closing Solutions,
National Closing Solutions of Alabama, National Closing Solutions of Maryland,
North Idaho Title Insurance, Placer Title Insurance Agency of Utah, Premier Reverse Closings,
Premier Title Agency, Texas National Title, Western Auxiliary Corp., Wyoming Title and Escrow**

NOTICE AT COLLECTION AND PRIVACY POLICY
updated December 20, 2019, effective January 1, 2020

We respect your personal information and are committed to protecting it. We are disclosing how Mother Lode Holding Company and its subsidiaries listed above (together referred to as "we," "us," or "our") collect, use, and share your personal information. Sections 1 and 2 constitute our Notice at Collection, Sections 1 – 9 are our Privacy Policy, and Sections 10 – 11 are additional sections of our Privacy Policy that apply only to California residents.

1. Personal Information We Collect

We may collect and over the last 12 months have collected personal information in the following categories: (A) Identity information such as name, postal address, email address, date of birth, social security number, driver's license, passport, signature, physical characteristics or description, telephone number, or other similar information; (B) Financial information (such as bank account information) and insurance information; (C) Records of services or products requested or purchased; (D) Biometric information (thumbprints obtained by notaries); (E) Internet or other electronic network activity information, such as online identifiers, Internet Protocol address, and information relating to interaction with our Internet websites and mobile applications; (F) Audio (voice messages), electronic, or similar information; (G) Professional or employment-related information; (H) Education information; (I) Characteristics of protected classifications such as marital status; and (J) Geolocation information (with consent when using our mobile applications).

1. Purposes

We collect the above information, and have collected it in the last 12 months, for the following purposes: Our operational purposes, including providing escrow and title services, fulfilling a transaction, verifying customer information, and providing and improving customer service (categories A-J); Detecting, protecting against, and reporting malicious, deceptive, fraudulent, or illegal activity (A-I); Providing and improving Websites, and debugging to find and repair errors (A, C E, F, J); and Auditing and complying with legal and other similar requirements (A-I).

1. Sources, Sharing

The sources from which the information is and was collected include: the consumer or their authorized representative (A-J); government entities, service providers, financial institutions, our affiliates, real estate settlement service providers, real estate brokers and agents (A-D, F-I); and our internet websites and mobile applications (A-C, E-J). The categories of third parties with whom we share and have shared personal information include: a consumer's authorized representative (A-I); government entities, service providers and consultants, financial institutions, our affiliates, real estate settlement service providers, real estate brokers and agents, abstractors (A-I); and data analytics and internet service providers (E, F, J). We may also disclose your information as part of a business transaction, such as a merger, sale, reorganization or acquisition (A-J).

1. Cookies and similar technologies

We use "cookies" and similar technologies when you access our websites or mobile applications. A "cookie" is a piece of information that our website sends to your browser, which then stores this information on your system. If a cookie is used, our website will be able to "remember" information about you and your preferences either until you exit your current browser window (if the cookie is temporary) or until you disable or delete the cookie. Many users prefer to use cookies in order to help them navigate a website as seamlessly as possible.

We use "cookies" in the following situations. The first situation is with respect to temporary cookies. If you are accessing our services through one of our online applications our server may automatically send your browser a temporary cookie, which is used to help your browser navigate our site. The only information contained in these temporary cookies is a direction value that lets our software determine which page to show when you hit the back button in your browser. This bit of information is erased when you close your current browser window. The second situation in which we may use cookies is with respect to permanent cookies. This type of cookie remains on your system, although you can always delete or disable it through your browser preferences. There are two instances in which we use a permanent cookie. First, when you visit our website and request documentation or a response from us. When you are filling out a form, you may be given the option of having our website deliver a cookie to your local hard drive. You might choose to receive this type of cookie in order to save time in filling out forms and/or revisiting our website. We only send this type of cookie to your browser when you have clicked on the box labeled "Please remember my profile information" when submitting information or communicating with us. The second instance where we use a permanent cookie is where we track traffic patterns on our site. Analysis of the collected information by our tracking technologies allows us to improve our website and the user experience. In both instances of a persistent cookie, if you choose not to accept the cookie, you will still be able to use our website. Even if you choose to receive this type of cookie, you can set your browser to notify you when you receive any cookie, giving you the chance to decide whether to accept or reject it each time one is sent.

1. Links to Other Websites and Do Not Track

Our website may contain links to third party websites, which are provided and maintained by the third party. Third party websites are not subject to this notice or privacy policy. Currently, we do not recognize "do not track" requests from Internet browsers or similar devices.

1. Sale

We do not sell personal information about consumers and have not sold information about consumers in the last 12 months.

1. Minors

We do not collect information from minors under the age of 18.

1. Safeguards

We restrict access to the information we collect to individuals and entities who need to know the information to provide services as set forth above. We also maintain physical, electronic and procedural safeguards to protect information, including data encryption.

1. Access and Changes

This notice and policy can be accessed <https://www.mlhc.com/privacy-policy>. Disabled consumers may access this notice in an alternative format by contacting MLHC Counsel, Legal Dept., 1508 Eureka Rd., #130, Roseville, CA 95661, or calling our toll free number at 1-877-626-0668, or emailing privacy@mlhc.com. This notice and policy will change from time to time. All changes will be provided at <https://www.mlhc.com/privacy-policy> and furnished through an appropriate method such as electronically, by mail, or in person. The effective date will be stated on the notice and policy.

Questions about this notice and privacy policy may be sent to MLHC Counsel, Legal Dept., 1508 Eureka Rd., #130, Roseville, CA 95661 or privacy@mlhc.com.

CALIFORNIA SUPPLEMENT - THE REMAINDER OF THIS POLICY APPLIES ONLY TO CALIFORNIA RESIDENTS

1. Requests Under the California Consumer Privacy Act ("CCPA")

Effective January 1, 2020, California residents have the right to make a "request to know" (1) the specific pieces of personal information we have collected about them; (2) categories of personal information we have collected; (3) categories of sources from which the personal information was collected; (4) categories of personal information we disclosed for a business purpose; (5) purpose for collecting the information; and (6) categories of third parties with whom we shared personal information. California residents have the right to request that we deliver to them their personal information free of charge. California residents have the right to make a "request to delete" from our records of their personal information that we have collected, subject to legal limitations.

We do not discriminate against consumers for exercising rights under the CCPA or other laws.

1. How to Make a Request under the California Consumer Privacy Act

To make a CCPA "request to know," a "request to delete," or any other request under the CCPA, a California consumer may (1) submit a request via our Internet website at <https://www.placertitle.com>; (2) call us toll-free at 1-877-626-0668; or (3) send a written request to MLHC Counsel, Legal Dept., 1508 Eureka Rd., #130, Roseville, CA 95661. Please note that you must verify your identity before we take further action. To verify your identity, we will try to use information you have already provided. We may also need additional information. Consistent with California law, you may designate an authorized agent to make a request on your behalf. To do this, you must provide a valid power of attorney, the requester's valid government issued identification, and the authorized agent's valid government issued identification. California residents may "opt out" of the sale of their personal information. However, we do not sell your personal information and therefore we do not offer an "opt out."

Upon receipt of a verified consumer request, we will respond by giving you the information requested for the 12-month period before our receipt of your verified consumer request at no cost to you, or deleting the information and notifying any service providers to delete it, subject to legal limitations. If we have a valid reason to retain personal information or are otherwise unable to comply with a request, we will tell you. For example, the law may not require us or allow us to delete certain information collected. In addition, personal information we collect pursuant to the federal Gramm-Leach-Bliley Act is exempt from most of the provisions of the CCPA.

Questions about this notice and privacy policy may be sent to MLHC Counsel, Legal Dept., 1508 Eureka Rd., #130, Roseville, CA 95661 or privacy@mlhc.com.

GRAMM-LEACH-BLILEY ACT PRIVACY POLICY NOTICE

Title V of the Gramm-Leach-Bliley Act (GLBA) requires financial companies to provide you with a notice of their privacy policies and practices, such as the types of nonpublic personal information that they collect about you and the categories of persons or entities to whom it may be disclosed. In compliance with the Gramm-Leach-Bliley-Act, we are notifying you of the privacy policies and practices of:

Mother Lode Holding Co.	Placer Title Co.
Montana Title and Escrow Co.	Placer Title Insurance Agency of Utah
National Closing Solutions, Inc.	Premier Title Agency
National Closing Solutions of Alabama	North Idaho Title Insurance Co.
National Closing Solutions of Maryland	Texas National Title
Premier Reverse Closings	Western Auxiliary Corp.
	Wyoming Title and Escrow Co.

The types of personal information we collect and share depend on the transaction involved. This information may include:

- Identity information such as Social Security number and driver's license information.
- Financial information such as mortgage loan account balances, checking account information and wire transfer instructions
- Information from others involved in your transaction such as documents received from your lender

We collect this information from you, such as on an application or other forms, from our files, and from our affiliates or others involved in your transaction, such as the real estate agent or lender.

We may disclose any of the above information that we collect about our customers or former customers to our affiliates or to non-affiliates as permitted by law for our everyday business purposes, such as to process your transactions and respond to legal and regulatory matters. We do not sell your personal information or share it for marketing purposes.

We do not share any nonpublic personal information about you with anyone for any purpose that is not specifically permitted by law.

We restrict access to nonpublic personal information about you to those employees who need to know that information in order to provide products or services to you. We maintain physical, electronic and procedural safeguards that comply with federal regulations to guard your nonpublic personal information.

Questions about this notice and privacy policy may be sent to MLHC Counsel, Legal Dept., 1508 Eureka Rd., #130, Roseville, CA 95661 or privacy@mlhc.com.



FACTS	WHAT DOES OLD REPUBLIC TITLE DO WITH YOUR PERSONAL INFORMATION?
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Why?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.
What?	<p>The types of personal information we collect and share depend on the product or service you have with us. This information can include:</p> <ul style="list-style-type: none"> • Social Security number and employment information • Mortgage rates and payments and account balances • Checking account information and wire transfer instructions <p>When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.</p>
How?	All financial companies need to share customers’ personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers’ personal information; the reasons Old Republic Title chooses to share; and whether you can limit this sharing.

Reasons we can share your personal information	Does Old Republic Title share?	Can you limit this sharing?
For our everyday business purposes – such as to process your transactions, maintain your account(s), or respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes – to offer our products and services to you	No	We don’t share
For joint marketing with other financial companies	No	We don’t share
For our affiliates’ everyday business purposes – information about your transactions and experiences	Yes	No
For our affiliates’ everyday business purposes – information about your creditworthiness	No	We don’t share
For our affiliates to market to you	No	We don’t share
For non-affiliates to market to you	No	We don’t share

Questions	Go to www.oldrepublictitle.com (Contact Us)
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Who we are

Who is providing this notice?

Companies with an Old Republic Title name and other affiliates. Please see below for a list of affiliates.

What we do

How does Old Republic Title protect my personal information?

To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information, visit <http://www.OldRepublicTitle.com/newnational/Contact/privacy>.

How does Old Republic Title collect my personal information?

We collect your personal information, for example, when you:

- Give us your contact information or show your driver's license
- Show your government-issued ID or provide your mortgage information
- Make a wire transfer

We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.

Why can't I limit all sharing?

Federal law gives you the right to limit only:

- Sharing for affiliates' everyday business purposes – information about your creditworthiness
- Affiliates from using your information to market to you
- Sharing for non-affiliates to market to you.

State laws and individual companies may give you additional rights to limit sharing. See the "Other important information" section below for your rights under state law.

Definitions

Affiliates

Companies related by common ownership or control. They can be financial and nonfinancial companies

- Our affiliates include companies with an Old Republic Title name, and financial companies such as Attorneys' Title Fund Services, LLC, Lex Terrae National Title Services, Inc., Mississippi Valley Title Services Company, and The Title Company of North Carolina.

Non-affiliates

Companies not related by common ownership or control. They can be financial and non-financial companies.

- Old Republic Title does not share with non-affiliates so they can market to you

Joint Marketing

A formal agreement between non-affiliated financial companies that together market financial products or services to you.

- Old Republic Title doesn't jointly market.

Other Important Information

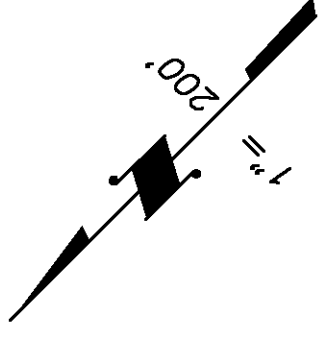
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Lex Terrae National Title Services, Inc.	Lex Terrae, Ltd.	Mara Escrow Company	Mississippi Valley Title Services Company	National Title Agent's Services Company
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Old Republic Title Co.	Old Republic Title Company of Conroe	Old Republic Title Company of Indiana	Old Republic Title Company of Nevada	Old Republic Title Company of Oklahoma
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POR. LOT 37, RANCHO DE LOS ULPINOS
POR. SEC. 19 & 30, T.4N., R.3E., M.D.B.& M. EXT.

Bk. 177



21

02

20

1.	R=45'	L=	5.62'
2.	S.31°46'34"W.		35.22'
3.	N.35°23'33"E.		18.82'

NOTE: This map is for assessment purposes only. It is not intended to define legal boundary rights or imply compliance with land division laws.

REVISION	DATE	BY
P.M. 52-38 & 40	6-28-18	Cr
P.M. 52-22 & 230-11,13,14		
Remap from Pg.20	4-10-18	Cr
Create, 230-02,09(Lig)	1-17-18	Cr

Assessor's Block Numbers Shown in Ellipses, Assessor's Parcel Numbers Shown in Circles

APPENDIX D
ENVIRONMENTAL DATABASE INFORMATION

Snowtill

Industrial Court
Rio Vista, CA 94571

Inquiry Number: 5964900.2s
February 07, 2020

The EDR Radius Map™ Report with GeoCheck®



6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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MAPPED SITES SUMMARY

Target Property Address:
INDUSTRIAL COURT
RIO VISTA, CA 94571

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	INSTRAT INC	1105 C AIRPORT RD	RCRA NonGen / NLR, HAZNET	Lower	326, 0.062, NNE
A2	RIO VISTA MUFFLER, H	1105 AIRPORT RD	CERS HAZ WASTE, CERS	Lower	535, 0.101, NE
B3	CROSS COUNTRY HDI	1031 AIRPORT RD	RCRA NonGen / NLR	Lower	592, 0.112, ENE
B4	CROSS COUNTRY HDI	1031 AIRPORT RD	CERS HAZ WASTE, CERS	Lower	592, 0.112, ENE
B5	MORENO TRENCHING, RI	1015B AIRPORT RD	CERS HAZ WASTE, CERS TANKS, CERS	Lower	612, 0.116, ENE
B6	MORENO TRENCHING	1015 AIRPORT RD.	RCRA NonGen / NLR	Lower	614, 0.116, East
B7	DELTA MARINA AIRCRAF	1000 AIRPORT RD	UST, SWEEPS UST	Lower	677, 0.128, East
B8	AIR CRAFT HANGER	1000 AIRPORT ROAD	HIST UST	Lower	677, 0.128, East
C9	RIO VISTA AUTOMOTIVE	933 AIRPORT RD	CPS-SLIC, HIST UST, HAZNET, CERS	Lower	775, 0.147, East
C10	ALEXANDER AG SERVICE	933 AIRPORT RD	UST, SWEEPS UST, HAZNET	Lower	775, 0.147, East
C11	ABOVE	933 AIRPORT WAY	HIST UST	Lower	775, 0.147, East
C12	ASTA SAND PIT	AIRPORT ROAD	CPS-SLIC, CERS	Lower	980, 0.186, East
D13	CALIFORNIA VEGETABLE	15 POPPY HOUSE RD	CERS HAZ WASTE, CERS	Lower	1042, 0.197, SSE
D14	CALIFORNIA VEGETABLE	15 POPPY HOUSE RD	LUST	Lower	1042, 0.197, SSE
D15	CALIFORNIA ENDIVE FA	15 POPPY HOUSE RD	RCRA NonGen / NLR	Lower	1042, 0.197, SSE
16	RIO VISTA MUNICIPAL	1051 ST FRANCIS WAY	UST, SWEEPS UST, HIST UST, NPDES, WDS, CIWQS	Lower	1129, 0.214, SE
17	ASTA CONSTRUCTION CO	RIO VISTA SAND PIT	US MINES	Lower	1237, 0.234, ESE
18	ASTA CONSTRUCTION CO	1090 ST FRANCIS WAY	LUST, UST, SWEEPS UST, CERS	Lower	1483, 0.281, SE
19	RIO VISTA LANDFILL	AIRPORT RD	CPS-SLIC, WMUDS/SWAT, WDS	Lower	1674, 0.317, ESE
20	RIO VISTA SANITARY L	301 AIRPORT ROAD	SWF/LF, CERS	Lower	2360, 0.447, ESE
21	FISHER BROS. INC.	550 RIVER RD	LUST, SWEEPS UST, HIST UST, HIST CORTESE, CERS	Lower	2436, 0.461, ESE
22	D.C.I. & B.S.I.	101 BLACKWELDER DRIV	EMI, Notify 65	Lower	3214, 0.609, SSE
23	PG&E RIO VISTA SERVI	410 HIGHWAY 12	SWEEPS UST, NPDES, Notify 65	Lower	3901, 0.739, SSW

OVERVIEW MAP - 5964900.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern

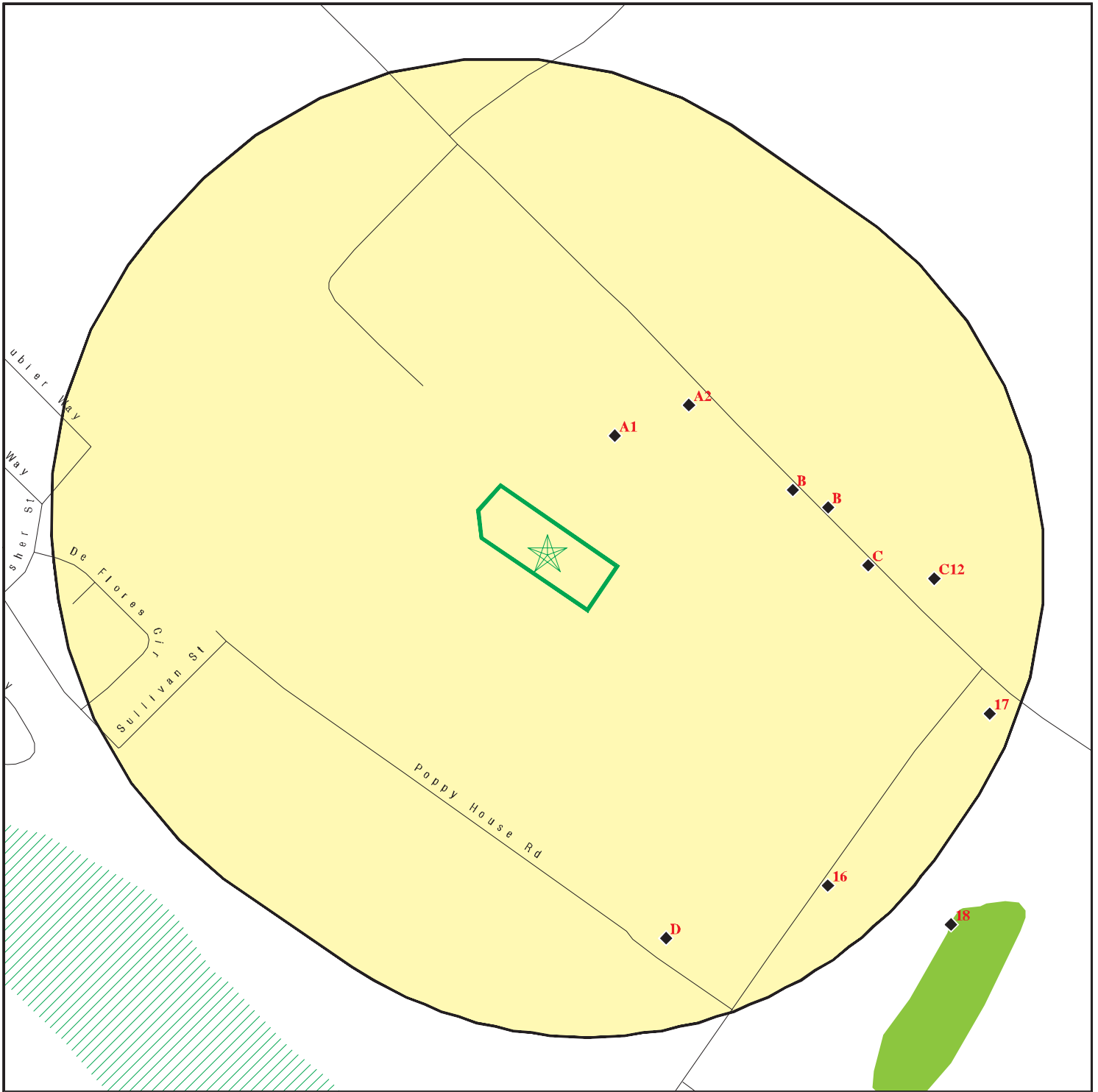


This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Snowtil
 ADDRESS: Industrial Court
 Rio Vista CA 94571
 LAT/LONG: 38.171771 / 121.688353

CLIENT: Terracon
 CONTACT: Tammy Woods
 INQUIRY #: 5964900.2s
 DATE: February 07, 2020 4:37 pm

DETAIL MAP - 5964900.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

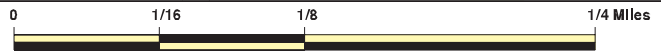
Special Flood Hazard Area (1%)

0.2% Annual Chance Flood Hazard

National Wetland Inventory

State Wetlands

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Snowtil
 ADDRESS: Industrial Court
 Rio Vista CA 94571
 LAT/LONG: 38.171771 / 121.688353

CLIENT: Terracon
 CONTACT: Tammy Woods
 INQUIRY #: 5964900.2s
 DATE: February 07, 2020 4:38 pm

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL	1.000		0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
<i>Federal CERCLIS NFRAP site list</i>								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS	1.000		0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	TP		NR	NR	NR	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS	TP		NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL RESPONSE</i>								
RESPONSE	1.000		0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS ENVIROSTOR</i>								
ENVIROSTOR	1.000		0	0	0	0	NR	0
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF	0.500		0	0	1	NR	NR	1
<i>State and tribal leaking storage tank lists</i>								
LUST	0.500		0	1	2	NR	NR	3

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	2	1	NR	NR	3
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.100		0	NR	NR	NR	NR	0
AST	0.100		0	NR	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	1	NR	NR	1
SWRCY	TP		NR	NR	NR	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
CERS HAZ WASTE	0.250		3	1	NR	NR	NR	4
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	3	NR	NR	NR	3
HIST UST	0.250		0	4	NR	NR	NR	4
CA FID UST	0.250		0	0	NR	NR	NR	0
CERS TANKS	0.250		1	0	NR	NR	NR	1
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		3	1	NR	NR	NR	4
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	1	NR	NR	NR	1
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
ECHO	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
ENF	TP		NR	NR	NR	NR	NR	0
HAZNET	TP		NR	NR	NR	NR	NR	0
ICE	TP		NR	NR	NR	NR	NR	0
HIST CORTESE	0.500		0	0	1	NR	NR	1
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	2	NR	2
UIC	TP		NR	NR	NR	NR	NR	0
UIC GEO	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	TP		NR	NR	NR	NR	NR	0
PROJECT	TP		NR	NR	NR	NR	NR	0
WDR	TP		NR	NR	NR	NR	NR	0
CIWQS	TP		NR	NR	NR	NR	NR	0
CERS	TP		NR	NR	NR	NR	NR	0
NON-CASE INFO	TP		NR	NR	NR	NR	NR	0
OTHER OIL GAS	TP		NR	NR	NR	NR	NR	0
PROD WATER PONDS	TP		NR	NR	NR	NR	NR	0
SAMPLING POINT	TP		NR	NR	NR	NR	NR	0
WELL STIM PROJ	TP		NR	NR	NR	NR	NR	0
MINES MRDS	TP		NR	NR	NR	NR	NR	0

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		0	7	13	6	2	0	28

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

A1
NNE
< 1/8
0.062 mi.
326 ft.

INSTRAT INC
1105 C AIRPORT RD
RIO VISTA, CA 94571

RCRA NonGen / NLR **1007200700**
HAZNET **CAR000150599**

Site 1 of 2 in cluster A

Relative:
Lower

RCRA NonGen / NLR:

Actual:
39 ft.

Date form received by agency: 2004-06-18 00:00:00.0
Facility name: INSTRAT INC
Facility address: 1105 C AIRPORT RD
RIO VISTA, CA 94571-0000
EPA ID: CAR000150599
Mailing address: PO BOX 2279
DAVIS, CA 95617-0000
Contact: PATRICK R. MCLOUGHLIN
Contact address: PO BOX 2279
DAVIS, CA 95617
Contact telephone: 530-753-1829
Contact email: INSTRAT@AOL.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: PATRICK R. MCLOUGHLIN
Owner/operator address: PO BOX 2279
DAVIS, CA 95617
Owner/operator telephone: 530-753-1829
Legal status: Other
Owner/Operator Type: Operator

Owner/operator name: INSTRAT INC
Owner/operator country: US
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 2001-04-01 00:00:00.

Owner/operator name: INSTRAT INC
Owner/operator country: US
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 2001-04-01 00:00:00.

Owner/operator name: INSTRAT INC
Owner/operator address: PO BOX 2279
DAVIS, CA 95617
Owner/operator telephone: 530-753-1829
Legal status: Other
Owner/Operator Type: Owner

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: Yes
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: Yes
Underground injection activity: No
On-site burner exemption: No

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:

Date form received by agency: 2004-01-15 00:00:00.0
Site name: INSTRAT INC
Classification: Small Quantity Generator

Hazardous Waste Summary:

. Waste code: D001
. Waste name: IGNITABLE WASTE

Violation Status: No violations found

HAZNET:

Name: INSTRAT INC
Address: 1105 C AIRPORT RD
City,State,Zip: RIO VISTA, CA 945710000
Year: 2011
Gepaid: CAR000150599
Contact: PATRICK R. MCLOUGHLIN SEC.
Telephone: 5307531829
Mailing Address: PO BOX 2279
Gen County: 48
Waste Category: Organic solids with halogens
TSD EPA ID: AZD982441263
TSD County: 99
Disposal Method: Other Treatment
Tons: 0.4

Additional Info:

Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS
TSD EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H129
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS
TSDf EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSDf EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H039
Quantity Tons: 1
Waste Quantity: 2000
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSDf EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 1.2
Waste Quantity: 2400
Quantity Unit: P

Name: INSTRAT INC

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

Address: 1105 C AIRPORT RD
City,State,Zip: RIO VISTA, CA 945710000
Year: 2011
Gepaid: CAR000150599
Contact: PATRICK R. MCLOUGHLIN SEC.
Telephone: 5307531829
Mailing Address: PO BOX 2279
Gen County: 48
Waste Category: Organic solids with halogens
TSD EPA ID: AZD982441263
TSD County: 99
Tons: 1.6

Additional Info:

Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS
TSD EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H129
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS
TSD EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSD EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H039
Quantity Tons: 1
Waste Quantity: 2000
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSD EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 1.2
Waste Quantity: 2400
Quantity Unit: P

Name: INSTRAT INC
Address: 1105 C AIRPORT RD
City,State,Zip: RIO VISTA, CA 945710000
Year: 2011
Gepaid: CAR000150599
Contact: PATRICK R. MCLOUGHLIN SEC.
Telephone: 5307531829
Mailing Address: PO BOX 2279
Gen County: 48
Waste Category: Organic solids with halogens
TSD EPA ID: AZD982441263
TSD County: 99
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,
Organics Recovery Ect
Tons: 1

Additional Info:
Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

TSDF EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H129
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Year: 2011
Shipment Date: 20110210
Creation Date: 6/27/2011 18:30:19
Receipt Date: 20110217
Manifest ID: 001344291JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: MAD039322250
Trans 2 Name: CLEAN HARBORS
TSDF EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 0.4
Waste Quantity: 800
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSDF EPA ID: AZD982441263
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Meth Code: H039
Quantity Tons: 1
Waste Quantity: 2000
Quantity Unit: P

Year: 2011
Shipment Date: 20110328
Creation Date: 8/26/2011 18:30:13
Receipt Date: 20110404
Manifest ID: 007892613JJK
Gen EPA ID: CAR000150599
Trans EPA ID: PAD981739188
Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Trans 2 EPA ID: ILD982612798
Trans 2 Name: SIEMENS INDUSTRY INC
TSDF EPA ID: AZD982441263

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

INSTRAT INC (Continued)

1007200700

Trans Name: SIEMENS WATER TECHNOLOGIES CORP
Waste Code: 351
RCRA Code: F002
Quantity Tons: 1.2
Waste Quantity: 2400
Quantity Unit: P

Name: INSTRAT INC
Address: 1105 C AIRPORT RD
City,State,Zip: RIO VISTA, CA 945710000
Year: 2004
Gepaid: CAR000150599
Contact: PATRICK R. MCLOUGHLIN SEC.
Telephone: 5307531829
Mailing Address: PO BOX 2279
Gen County: 48
Waste Category: Other organic solids
TSD EPA ID: NVT330010000
TSD County: 99
Disposal Method: Disposal, Other
Tons: 2.5284

Additional Info:

Year: 2004
Shipment Date: 20040326
Creation Date: 8/23/2004 8:48:57
Receipt Date: 20040329
Manifest ID: 23386429
Gen EPA ID: CAR000150599
Trans EPA ID: CA0000896019
Trans Name: LD TRANSPORTATION
TSD EPA ID: NVT330010000
Trans Name: US ECOLOGY INC
Waste Code: 352
Meth Code: D99
Quantity Tons: 2.5284
Waste Quantity: 3
Quantity Unit: Y

Name: INSTRAT INC
Address: 1105 C AIRPORT RD
City,State,Zip: RIO VISTA, CA 945710000
Year: 2005
Gepaid: CAR000150599
Contact: PATRICK R. MCLOUGHLIN SEC.
Telephone: 5307531829
Mailing Address: PO BOX 2279
Gen County: 48
Waste Category: Other organic solids
TSD EPA ID: NVT330010000
TSD County: 99
Disposal Method: Disposal, Other
Tons: 0.125

Additional Info:

Year: 2005

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

INSTRAT INC (Continued)

1007200700

Shipment Date: 20051021
 Creation Date: 1/4/2007 18:30:12
 Receipt Date: 20051104
 Manifest ID: 23598822
 Gen EPA ID: CAR000150599
 Trans EPA ID: CAR000129304
 Trans Name: FILTER RECYCLING SVS
 Trans 2 EPA ID: CAD982444481
 Trans 2 Name: FILTER RECYCLING SVS
 TSDF EPA ID: NVT330010000
 Trans Name: US ECOLOGY
 Waste Code: 352
 RCRA Code: D018
 Meth Code: D99
 Quantity Tons: 0.125
 Waste Quantity: 250
 Quantity Unit: P

A2
NE
 < 1/8
 0.101 mi.
 535 ft.

RIO VISTA MUFFLER, HITCH AND WELDING
1105 AIRPORT RD
RIO VISTA, CA 94571

CERS HAZ WASTE **S121789183**
CERS **N/A**

Site 2 of 2 in cluster A

Relative:
Lower
Actual:
35 ft.

CERS HAZ WASTE:
 Name: RIO VISTA MUFFLER, HITCH AND WELDING
 Address: 1105 AIRPORT RD
 City,State,Zip: RIO VISTA, CA 94571
 Site ID: 61740
 CERS ID: 10445278
 CERS Description: Hazardous Waste Generator

CERS:
 Name: RIO VISTA MUFFLER, HITCH AND WELDING
 Address: 1105 AIRPORT RD
 City,State,Zip: RIO VISTA, CA 94571
 Site ID: 61740
 CERS ID: 10445278
 CERS Description: Chemical Storage Facilities

Violations:
 Site ID: 61740
 Site Name: Rio Vista Muffler, Hitch and Welding
 Violation Date: 01-30-2014
 Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
 Violation Description: Business Plan Program - Operations/Maintenance - General
 Violation Notes: Returned to compliance on 05/29/2015. Secondary container for waste antifreeze observed with small amount of liquid - please empty and keep containment dry.
 Violation Division: Solano County Environmental Health
 Violation Program: HMRRP
 Violation Source: CERS
 Site ID: 61740
 Site Name: Rio Vista Muffler, Hitch and Welding
 Violation Date: 01-30-2014

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUFFLER, HITCH AND WELDING (Continued)

S121789183

Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 01/03/2019. Label all drain (oil) tanks properly. Also, update accumulation start date for "oily debris".
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 61740
Site Name: Rio Vista Muffler, Hitch and Welding
Violation Date: 01-30-2014
Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174
Violation Description: Failure to inspect hazardous waste storage areas at least weekly.
Violation Notes: Returned to compliance on 01/03/2019. Document weekly inspections of waste area.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 61740
Site Name: Rio Vista Muffler, Hitch and Welding
Violation Date: 02-02-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 02/10/2017.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-30-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Violations cleared with more recent inspection.
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-30-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Information submitted on CERS
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUFFLER, HITCH AND WELDING (Continued)

S121789183

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-02-2017
Violations Found: No
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-02-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:

Site ID: 61740
Facility Name: Rio Vista Muffler, Hitch and Welding
Env Int Type Code: HWG
Program ID: 10445278
Ref Point Type Desc: Center of a facility or station.
Latitude: 38.172580
Longitude: -121.687400

Affiliation:

Affiliation Type Desc: Environmental Contact
Entity Name: Robert W Lapp IV
Affiliation Address: 1105-D Airport Rd
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Legal Owner
Entity Name: Robert W Lapp IV
Affiliation Address: 1105-D Airport Rd
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-2484

Affiliation Type Desc: Parent Corporation
Entity Name: Rio Vista Muffler, Hitch and Welding

Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Affiliation Address: 675 Texas Street, Suite 5500
Affiliation City: Fairfield
Affiliation State: CA
Affiliation Zip: 94533
Affiliation Phone: (707) 784-6765

Affiliation Type Desc: Property Owner
Entity Name: Warren Gomes Jr.
Affiliation Address: 551 Airport Rd

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUFFLER, HITCH AND WELDING (Continued)

S121789183

Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-2881

Affiliation Type Desc: Document Preparer
Entity Name: Dana M Lapp

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Affiliation Address: 1105-D Airport Rd
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Identification Signer
Entity Name: Robert W Lapp IV
Entity Title: Owner

Affiliation Type Desc: Operator
Entity Name: Robert W Lapp IV
Affiliation Phone: (707) 374-2484

B3
ENE
< 1/8
0.112 mi.
592 ft.

CROSS COUNTRY HDI
1031 AIRPORT RD
RIO VISTA, CA 94571

RCRA NonGen / NLR

1024806001
CAL000266655

Site 1 of 6 in cluster B

Relative:
Lower
Actual:
35 ft.

RCRA NonGen / NLR:
Date form received by agency: 2003-02-20 00:00:00.0
Facility name: CROSS COUNTRY HDI
Facility address: 1031 AIRPORT RD
RIO VISTA, CA 94571
EPA ID: CAL000266655
Contact: BOBBIE LAMPE/OFFICE MANAGER
Contact address: 1031 AIRPORT RD
RIO VISTA, CA 94571
Contact telephone: 707-374-7552
Contact email: BLAMPE@CROSSCOUNTRYHDI.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: WAYNE MILLS
Owner/operator address: 1031 AIRPORT RD
RIO VISTA, CA 94571
Owner/operator telephone: 707-374-7552
Legal status: Other
Owner/Operator Type: Owner

Owner/operator name: BOBBIE LAMPE/OFFICE MANAGER
Owner/operator address: 1031 AIRPORT RD
RIO VISTA, CA 94571

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CROSS COUNTRY HDI (Continued)

1024806001

Owner/operator telephone: 707-374-7552
 Legal status: Other
 Owner/Operator Type: Operator

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: Yes
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Violation Status: No violations found

**B4
 ENE
 < 1/8
 0.112 mi.
 592 ft.**

**CROSS COUNTRY HDI
 1031 AIRPORT RD
 RIO VISTA, CA 94571
 Site 2 of 6 in cluster B**

**CERS HAZ WASTE
 CERS
 S121738626
 N/A**

**Relative:
 Lower
 Actual:
 35 ft.**

CERS HAZ WASTE:
 Name: CROSS COUNTRY HDI
 Address: 1031 AIRPORT RD
 City,State,Zip: RIO VISTA, CA 94571
 Site ID: 108924
 CERS ID: 10157317
 CERS Description: Hazardous Waste Generator

CERS:
 Name: CROSS COUNTRY HDI
 Address: 1031 AIRPORT RD
 City,State,Zip: RIO VISTA, CA 94571
 Site ID: 108924
 CERS ID: 10157317
 CERS Description: Chemical Storage Facilities

Violations:
 Site ID: 108924
 Site Name: CROSS COUNTRY HDI
 Violation Date: 02-02-2016
 Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
 Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
 Violation Notes: Returned to compliance on 02/02/2016. Oily debris drum without label. Corrected onsite.
 Violation Division: Solano County Environmental Health

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CROSS COUNTRY HDI (Continued)

S121738626

Violation Program: HW
Violation Source: CERS

Evaluation:
Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-02-2016
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-02-2016
Violations Found: No
Eval Type: Routine done by local agency
Eval Notes: No violations observed.
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Coordinates:
Site ID: 108924
Facility Name: CROSS COUNTRY HDI
Env Int Type Code: HWG
Program ID: 10157317
Ref Point Type Desc: Center of a facility or station.
Latitude: 38.172130
Longitude: -121.685420

Affiliation:
Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Affiliation Address: 1031 AIRPORT RD
Affiliation City: RIO VISTA
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Environmental Contact
Entity Name: Bobbie Lampe
Affiliation Address: 1031 AIRPORT RD
Affiliation City: RIO VISTA
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Identification Signer
Entity Name: Bobbie Lampe
Entity Title: Office Manager

Affiliation Type Desc: Operator
Entity Name: WAYNE MILLS
Affiliation Phone: (925) 584-5099

Affiliation Type Desc: Legal Owner
Entity Name: WAYNE MILLS
Affiliation Address: 1031 AIRPORT RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CROSS COUNTRY HDI (Continued)

S121738626

Affiliation City: RIO VISTA
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-7552

Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Affiliation Address: 675 Texas Street, Suite 5500
Affiliation City: Fairfield
Affiliation State: CA
Affiliation Zip: 94533
Affiliation Phone: (707) 784-6765

Affiliation Type Desc: Document Preparer
Entity Name: Bobbie Lampe

Affiliation Type Desc: Parent Corporation
Entity Name: CROSS COUNTRY HDI

B5
ENE
< 1/8
0.116 mi.
612 ft.

MORENO TRENCHING, RIO VISTA YARD
1015B AIRPORT RD
RIO VISTA, CA 94571
Site 3 of 6 in cluster B

CERS HAZ WASTE **S121743630**
CERS TANKS **N/A**
CERS

Relative:
Lower
Actual:
35 ft.

CERS HAZ WASTE:
Name: MORENO TRENCHING, RIO VISTA YARD
Address: 1015B AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 136328
CERS ID: 10170073
CERS Description: Hazardous Waste Generator

CERS TANKS:
Name: MORENO TRENCHING, RIO VISTA YARD
Address: 1015B AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 136328
CERS ID: 10170073
CERS Description: Aboveground Petroleum Storage

CERS:
Name: MORENO TRENCHING, RIO VISTA YARD
Address: 1015B AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 136328
CERS ID: 10170073
CERS Description: Chemical Storage Facilities

Violations:
Site ID: 136328
Site Name: Moreno Trenching, Rio Vista Yard
Violation Date: 02-13-2015
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MORENO TRENCHING, RIO VISTA YARD (Continued)

S121743630

Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 02/17/2015.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-13-2015
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 02-13-2015
Violations Found: No
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Affiliation:

Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Affiliation Address: 675 Texas Street, Suite 5500
Affiliation City: Fairfield
Affiliation State: CA
Affiliation Zip: 94533
Affiliation Phone: (707) 784-6765

Affiliation Type Desc: Document Preparer
Entity Name: Marc Heintz

Affiliation Type Desc: Environmental Contact
Entity Name: Marc Heintz
Affiliation Address: 1015B Airport Rd
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Identification Signer
Entity Name: Marc Heintz
Entity Title: Exec. VP

Affiliation Type Desc: Legal Owner
Entity Name: Jon Moreno
Affiliation Address: PO Box 458
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-5075

Affiliation Type Desc: Operator

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MORENO TRENCHING, RIO VISTA YARD (Continued)

S121743630

Entity Name: Moreno Trenching, Ltd
Affiliation Phone: (707) 374-5075

Affiliation Type Desc: Property Owner
Entity Name: Gilbert Moreno
Affiliation Address: PO Box 458
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-5075

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Affiliation Address: PO Box 458
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Parent Corporation
Entity Name: Moreno Trenching, Ltd

B6
East
< 1/8
0.116 mi.
614 ft.

MORENO TRENCHING
1015 AIRPORT RD.
RIO VISTA, CA 94571
Site 4 of 6 in cluster B

RCRA NonGen / NLR **1024795001**
CAL000158950

Relative:
Lower
Actual:
34 ft.

RCRA NonGen / NLR:
Date form received by agency: 1995-03-02 00:00:00.0
Facility name: MORENO TRENCHING
Facility address: 1015 AIRPORT RD.
RIO VISTA, CA 94571-0000
EPA ID: CAL000158950
Mailing address: PO BOX 458
1015 B AIRPORT ROAD
RIO VISTA, CA 94571-0000
Contact: MARC HEINTZ
Contact address: 1015 AIRPORT RD PO BOX 458
RIO VISTA, CA 94571
Contact telephone: 707-374-5075
Contact email: MARC@MORENOTRENCHING.COM
EPA Region: 09
Classification: Non-Generator
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:
Owner/operator name: MARC HEINTZ
Owner/operator address: 1015 AIRPORT RD PO BOX 458
RIO VISTA, CA 94571
Owner/operator telephone: 707-374-5075
Legal status: Other
Owner/Operator Type: Operator
Owner/operator name: MORENO TRENCHING LTD
Owner/operator address: 1015B AIRPORT RD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

MORENO TRENCHING (Continued)

1024795001

RIO VISTA, CA 94571
Owner/operator telephone: 707-374-5075
Legal status: Other
Owner/Operator Type: Owner

Handler Activities Summary:

U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: Yes
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

B7
East
1/8-1/4
0.128 mi.
677 ft.

DELTA MARINA AIRCRAFT HANGER
1000 AIRPORT RD
RIO VISTA, CA 94571
Site 5 of 6 in cluster B

UST **U003641560**
SWEEPS UST **N/A**

Relative:
Lower
Actual:
34 ft.

SOLANO CO. UST:
Name: DELTA MARINA AIRCRAFT HANGER
Address: 1000 AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Facility Id: 70009
Facility Status: Inactive
Decode for Facility Status: Closed
Facility Phone: 707-374-5751

Inventory Number: 1
Inventory Type: Underground Storage Tank (1)
Permit Expire/Last Service: ROUTINE - INITIAL (INVENTORIED)
Last Service Date: 10/12/05
District: SUP-DIST NO 3033
Inspector: LaPlace, Colby S

SWEEPS UST:

Name: DELTA MARINA AIRCRAFT HANGER
Address: 1000 AIRPORT RD
City: RIO VISTA
Comp Number: 70009
SWRCB Tank Id: 48-000-070009-000001
Capacity: 5000
Tank Use: M.V. FUEL
STG: PRODUCT
Content: AVIA. GAS
Number Of Tanks: 1

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

B8 **AIR CRAFT HANGER**
East **1000 AIRPORT ROAD**
1/8-1/4 **RIO VISTA, CA 94571**
0.128 mi.
677 ft. **Site 6 of 6 in cluster B**

HIST UST **U001598194**
N/A

Relative: HIST UST:
Lower Name: AIR CRAFT HANGER
 Address: 1000 AIRPORT ROAD
Actual: City,State,Zip: RIO VISTA, CA 94571
34 ft. File Number: 00021252
 URL: http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021252.pdf
 Region: STATE
 Facility ID: 00000001551
 Facility Type: Other
 Other Type: AIR CRAFT FUEL STORA
 Telephone: 7073745751
 Owner Name: DELTA MARINA YACHT HARBOR INC
 Owner Address: 120 MARINA DR
 Owner City,St,Zip: RIO VISTA, CA 94571
 Total Tanks: 0001

 Tank Num: 001
 Container Num: 1
 Year Installed: 1980
 Tank Capacity: 00005000
 Tank Used for: PRODUCT
 Type of Fuel: 06
 Leak Detection: Stock Inventor

[Click here for Geo Tracker PDF:](#)

C9 **RIO VISTA AUTOMOTIVE & TOWING**
East **933 AIRPORT RD**
1/8-1/4 **RIO VISTA, CA 94571**
0.147 mi.
775 ft. **Site 1 of 4 in cluster C**

CPS-SLIC **U001598193**
HIST UST **N/A**
HAZNET
CERS

Relative: CPS-SLIC:
Lower Name: ALEXANDER AG FLYING SERVICE
 Address: 933 AIRPORT RD
Actual: City,State,Zip: RIO VISTA, CA 94571
33 ft. Region: STATE
 Facility Status: **Open - Inactive**
 Status Date: 01/02/1987
 Global Id: SLT5S5073451
 Lead Agency: CENTRAL VALLEY RWQCB (REGION 5S)
 Latitude: 38.1718107124851
 Longitude: -121.686530618034
 Case Type: Cleanup Program Site
 Case Worker: ZZZ
 RB Case Number: SLT5S507
 Potential Media Affected: Soil
 Site History: Aerial pesticide applicator utilizing 4 planes for work. Tanks are field rinsed, while planes exteriors are washed at a concrete tie-down area. In 1985 and 1987, site inspections showed that plane washwater pooled on soil. Sulfur residue found in gravel where washwater flows off the concrete pad to the gravel area. Staff recommended soil samples. In 1992, Mr. Alexander stated his intent to follow Fertilizer Waiver guidelines. In 2011, Steve Allen, owner of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA AUTOMOTIVE & TOWING (Continued)

U001598193

Alexander Ag Flying Service, died. The contents of the case file are on Geotracker. Two slides are in the case file.

[Click here to access the California GeoTracker records for this facility:](#)

HIST UST:

Name: ABOVE
Address: 933 AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Region: STATE
Facility ID: 00000020089
Facility Type: Other
Other Type: CROP DUSTER
Contact Name: J.D. ALEXANDER
Telephone: 7073742476
Owner Name: ALEXANDER AG. FLYING SERVICE,
Owner Address: P.O. BOX 608
Owner City,St,Zip: RIO VISTA, CA 94571
Total Tanks: 0001

Tank Num: 001
Container Num: 1
Year Installed: 1980
Tank Capacity: 00012000
Tank Used for: PRODUCT
Type of Fuel: 06
Leak Detection: Stock Inventor

HAZNET:

Name: RIO VISTA AUTOMOTIVE & TOWING
Address: 933 AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Year: 2016
Gepaid: CAL000405871
Contact: JOHN MCCLAIN
Telephone: 7073745708
Mailing Address: 933 AIRPORT RD
Gen County: 48
Waste Category: Other organic solids
TSD EPA ID: CAD008252405
TSD County: 19
Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

Tons: 0.35

CERS:

Name: ALEXANDER AG FLYING SERVICE
Address: 933 AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 188573
CERS ID: SLT5S5073451
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: zzz - CENTRAL VALLEY RWQCB (REGION 5S)

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA AUTOMOTIVE & TOWING (Continued)

U001598193

Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA

C10
East
1/8-1/4
0.147 mi.
775 ft.

ALEXANDER AG SERVICE
933 AIRPORT RD
RIO VISTA, CA 94571
Site 2 of 4 in cluster C

UST U003802021
SWEEPS UST N/A
HAZNET

Relative:
Lower
Actual:
33 ft.

SOLANO CO. UST:
Name: ALEXANDER AG SERVICE
Address: 933 AIRPORT RD
City,State,Zip: RIO VISTA, CA 94571
Facility Id: 70001
Facility Status: Inactive
Decode for Facility Status: Closed

Inventory Number: 1
Inventory Type: Underground Storage Tank (1)
Permit Expire/Last Service: 3/26/1992
District: SUP-DIST NO 3038
Inspector: Osier, Courtney A

SWEEPS UST:
Name: ALEXANDER AG SERVICE
Address: 933 AIRPORT RD
City: RIO VISTA
Comp Number: 70001
SWRCB Tank Id: 48-000-070001-000001
Capacity: 10000
Tank Use: PETROLEUM
STG: PRODUCT
Content: GASOHOL
Number Of Tanks: 1

HAZNET:
Name: GALINDO CONSTRUCTION CO INC
Address: 933 AIRPORT RD
City,State,Zip: RIO VISTA, CA 945711235
Year: 2013
Gepaid: CAL000353888
Contact: RON GALINDO JR
Telephone: 9167761003
Mailing Address: 14246 STATE HIGHWAY 160
Gen County: 48
Waste Category: Other organic solids
TSD EPA ID: NVT330010000
TSD County: 99
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

Tons: 0.1

Additional Info:
Year: 2013
Shipment Date: 20130917

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ALEXANDER AG SERVICE (Continued)

U003802021

Creation Date: 3/3/2014 22:15:27
Receipt Date: 20130925
Manifest ID: 012159523JJK
Gen EPA ID: CAL000353888
Trans EPA ID: CAR000201095
Trans Name: PHOENIX ENVIRONMENTAL ENGINEERING & CONSTRUCTION INC
TSDF EPA ID: NVT330010000
Trans Name: US ECOLOGY
Waste Code: 352
Meth Code: H132
Quantity Tons: 0.1
Waste Quantity: 200
Quantity Unit: P

C11
East
1/8-1/4
0.147 mi.
775 ft.

ABOVE
933 AIRPORT WAY
RIO VISTA, CA 94571
Site 3 of 4 in cluster C

HIST UST **S118407228**
N/A

Relative:
Lower
Actual:
33 ft.

HIST UST:
Name: ABOVE
Address: 933 AIRPORT WAY
City,State,Zip: RIO VISTA, CA 94571
File Number: 00021190
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021190.pdf>

Click here for Geo Tracker PDF:

C12
East
1/8-1/4
0.186 mi.
980 ft.

ASTA SAND PIT
AIRPORT ROAD
RIO VISTA, CA 94571
Site 4 of 4 in cluster C

CPS-SLIC **S106483649**
CERS **N/A**

Relative:
Lower
Actual:
23 ft.

CPS-SLIC:
Name: ASTA SAND PIT
Address: AIRPORT ROAD
City,State,Zip: RIO VISTA, CA 94571
Region: STATE
Facility Status: Completed - Case Closed
Status Date: 05/24/2002
Global Id: SL0607738742
Lead Agency: CENTRAL VALLEY RWQCB (REGION 5S)
Latitude: 38.171546511828
Longitude: -121.684195952393
Case Type: Cleanup Program Site
Case Worker: ZZZ
RB Case Number: SLT5S804
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon
Site History: Solano County's closure memo states that natural gas discharge water had been discharged to the sand pit, leaving an oily residue. About 5,630 cubic yards of petroleum-impacted soil was excavated to a depth

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASTA SAND PIT (Continued)

S106483649

of 11 feet. Groundwater monitoring wells did not contain petroleum compounds.

[Click here to access the California GeoTracker records for this facility:](#)

CERS:

Name: ASTA SAND PIT
Address: AIRPORT ROAD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 253761
CERS ID: SL0607738742
CERS Description: Cleanup Program Site

Affiliation:

Affiliation Type Desc: Regional Board Caseworker
Entity Name: zzz - CENTRAL VALLEY RWQCB (REGION 5S)
Affiliation Address: 11020 SUN CENTER DRIVE #200
Affiliation City: RANCHO CORDOVA
Affiliation State: CA

D13
SSE
1/8-1/4
0.197 mi.
1042 ft.

CALIFORNIA VEGETABLE SPECIALTIES
15 POPPY HOUSE RD
RIO VISTA, CA 94571
Site 1 of 3 in cluster D

CERS HAZ WASTE **S121771869**
CERS **N/A**

Relative:
Lower
Actual:
31 ft.

CERS HAZ WASTE:
Name: CALIFORNIA VEGETABLE SPECIALTIES
Address: 15 POPPY HOUSE RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 389035
CERS ID: 10470433
CERS Description: Hazardous Waste Generator

Name: CALIFORNIA VEGETABLE SPECIALTIES
Address: 15 POPPY HOUSE RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 389035
CERS ID: 10470433
CERS Description: Hazardous Chemical Management

CERS:

Name: CALIFORNIA VEGETABLE SPECIALTIES
Address: 15 POPPY HOUSE RD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 389035
CERS ID: 10470433
CERS Description: Chemical Storage Facilities

Violations:

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit a site map with all required content.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Violation Notes: Returned to compliance on 05/24/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.

Violation Notes: Returned to compliance on 05/24/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 07-28-2014
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple
Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 08/20/2014. Please label all tanks, including fertilizer, propylene glycol, and water tanks. Ensure gas cylinders, including propane, are properly secured
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: 22 CCR 12 66262.12 - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.12
Violation Description: Failure to obtain an Identification Number prior to treating, storing, disposing of, transporting or offering for transportation any hazardous waste.

Violation Notes: Returned to compliance on 05/24/2018.
Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 07-28-2014
Citation: 19 CCR 4.5 2755.5(b) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(b)
Violation Description: Failure to train or cause to be trained each employee involved in maintaining the on-going mechanical integrity of the process in: 1. The hazards of the process; 2. How to avoid or correct unsafe conditions; 3. The procedures applicable to the employee's job tasks.

Violation Notes: Returned to compliance on 08/20/2014. Recommend employee training for ammonia safety program, off or on site. Label valves, piping, and equipment according to Intl' Institute of Ammonia Refrigeration, or similar, industry standards. Within 30 days submit work plan of

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

corrective actions for Solano County review and concurrence.
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 07-28-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)
Violation Description: Failure to complete and electronically submit hazardous material inventory information for all reportable hazardous materials on site at or above reportable quantities.
Violation Notes: Returned to compliance on 08/20/2014. Please update hazardous material inventory to reflect: propylene glycol, hydraulic oil, diesel, used oil, propane, and fertilizer mix. Resubmit to CERS

Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 07-28-2014
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22, Chapter 12, Section(s) 66262.34(f)
Violation Description: Failure to properly label hazardous waste accumulation containers with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.
Violation Notes: Returned to compliance on 08/20/2014. Please properly and legibly re-label all tanks. Used oil tank be sure to include accumulation start date

Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: 40 CFR 1 265.173 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.173
Violation Description: Failure to meet the following container management requirements: (a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. (b) A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.
Violation Notes: Returned to compliance on 05/24/2018.

Violation Division: Solano County Environmental Health
Violation Program: HW
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: HSC 6.95 Multiple - California Health and Safety Code, Chapter 6.95, Section(s) Multiple

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Violation Description: Business Plan Program - Operations/Maintenance - General
Violation Notes: Returned to compliance on 05/24/2018.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 01-27-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to establish and electronically submit an adequate emergency response plan and procedures for a release or threatened release of a hazardous material.
Violation Notes: Returned to compliance on 06/08/2017. No electronic submittal required. Paper copy needed.
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 07-28-2014
Citation: HSC 6.95 25508(a)(1) - California Health and Safety Code, Chapter 6.95, Section(s) 25508(a)(1)

Violation Description: Failure to complete and electronically submit a site map with all required content.
Violation Notes: Returned to compliance on 08/20/2014. Please update site map to include locations of: storm drains, gas/water/electric utility shut offs, location of hazardous material storage, including propane storage area(s). Re-submit to CERS
Violation Division: Solano County Environmental Health
Violation Program: HMRRP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: 19 CCR 4.5 2755.6(d) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.6(d)

Violation Description: Failure to: 1. Promptly determine and document an appropriate response to each of the findings of the compliance audit; 2. Enter into an agreement with the AA on a timetable for resolution of these findings. Otherwise these responses shall be completed one and one-half (1.5) years after performing the compliance audit, or the next planned turnaround for items requiring a turnaround (these timelines shall not apply to any compliance audit completed prior to January 1, 2015); 3. Document the actual completion dates when deficiencies were corrected.
Violation Notes: Returned to compliance on 05/24/2018.
Violation Division: Solano County Environmental Health
Violation Program: CalARP
Violation Source: CERS

Site ID: 389035
Site Name: California Vegetable Specialties
Violation Date: 10-25-2017
Citation: 22 CCR 12 66262.34(f) - California Code of Regulations, Title 22,

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Violation Description: Chapter 12, Section(s) 66262.34(f)
Failure to properly label hazardous waste accumulation containers and portable tanks with the following requirements: "Hazardous Waste", name and address of the generator, physical and chemical characteristics of the Hazardous Waste, and starting accumulation date.

Violation Notes: Returned to compliance on 05/24/2018.

Violation Division: Solano County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 389035

Site Name: California Vegetable Specialties

Violation Date: 07-28-2014

Citation: 40 CFR 1 265.174 - U.S. Code of Federal Regulations, Title 40, Chapter 1, Section(s) 265.174

Violation Description: Failure to inspect hazardous waste storage areas at least weekly.

Violation Notes: Returned to compliance on 08/20/2014. Document weekly inspections of hazardous material waste area. Document daily inspections of tanks

Violation Division: Solano County Environmental Health

Violation Program: HW

Violation Source: CERS

Site ID: 389035

Site Name: California Vegetable Specialties

Violation Date: 07-28-2014

Citation: 19 CCR 4.5 2745.1(e) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2745.1(e)

Violation Description: Failure of a new or modified stationary source to submit a Risk Management Plan to the Administering Agency prior to the date in which a regulated substance is first present in a process above the listed threshold quantity.

Violation Notes: Returned to compliance on 07/28/2014. Facility began using anhydrous ammonia (approx. 3,000 lbs.) in process in Sept. 2011, no releases in NH3 operations. Submission of Cal-ARP performed at time of inspection, Corrected On Site.

Violation Division: Solano County Environmental Health

Violation Program: CalARP

Violation Source: CERS

Site ID: 389035

Site Name: California Vegetable Specialties

Violation Date: 07-28-2014

Citation: 19 CCR 4.5 2755.5(a) - California Code of Regulations, Title 19, Chapter 4.5, Section(s) 2755.5(a)

Violation Description: Failure to prepare and implement procedures to maintain the on-going mechanical integrity of the process equipment.

Violation Notes: Returned to compliance on 08/20/2014. Follow recommended check sheets on ammonia system according to maintenance section of Cal-ARP RMP. Retain documentation of inspection/testing for 3 years. Certify ammonia sensors according to Intl' Institute of Ammonia Refrigeration according to proscribed timeline (due again: 11/21/2014). Recommend monthly check of sensors. Within 30 days submit work plan of corrective actions for Solano County review and concurrence.

Violation Division: Solano County Environmental Health

Violation Program: CalARP

Violation Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Evaluation:

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Notes: Program level 2, for anhydrous ammonia (approx. 3,000 lbs.)
Eval Division: Solano County Environmental Health
Eval Program: CalARP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-25-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-25-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: CalARP
Eval Source: CERS

Eval General Type: Other/Unknown
Eval Date: 11-16-2016
Violations Found: No
Eval Type: Other, not routine, done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 01-27-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HMRRP
Eval Source: CERS

Eval General Type: Compliance Evaluation Inspection
Eval Date: 07-28-2014
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Eval General Type: Compliance Evaluation Inspection
Eval Date: 10-25-2017
Violations Found: Yes
Eval Type: Routine done by local agency
Eval Division: Solano County Environmental Health
Eval Program: HW
Eval Source: CERS

Coordinates:

Site ID: 389035
Facility Name: California Vegetable Specialties
Env Int Type Code: CalARP
Program ID: 10470433
Ref Point Type Desc: Center of a facility or station.
Latitude: 38.168360
Longitude: -121.687270

Affiliation:

Affiliation Type Desc: Operator
Entity Name: Michael Delaney
Affiliation Phone: (949) 315-0423

Affiliation Type Desc: Document Preparer
Entity Name: Stewart Workman

Affiliation Type Desc: Environmental Contact
Entity Name: Howard Rudy
Affiliation Address: PO Box 638
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Facility Mailing Address
Entity Name: Mailing Address
Affiliation Address: PO Box 638
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571

Affiliation Type Desc: Identification Signer
Entity Name: Michael Delaney
Entity Title: CEO

Affiliation Type Desc: Legal Owner
Entity Name: Michael Delaney
Affiliation Address: PO Box 638
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (949) 315-0423

Affiliation Type Desc: Property Owner
Entity Name: City of Rio Vista
Affiliation Address: PO Box 745
Affiliation City: Rio Vista

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CALIFORNIA VEGETABLE SPECIALTIES (Continued)

S121771869

Affiliation State: CA
Affiliation Country: United States
Affiliation Zip: 94571
Affiliation Phone: (707) 374-2176

Affiliation Type Desc: CUPA District
Entity Name: Solano County Env Health
Affiliation Address: 675 Texas Street, Suite 5500
Affiliation City: Fairfield
Affiliation State: CA
Affiliation Zip: 94533
Affiliation Phone: (707) 784-6765

Affiliation Type Desc: Parent Corporation
Entity Name: California Endive Farms

D14
SSE
1/8-1/4
0.197 mi.
1042 ft.

CALIFORNIA VEGETABLE SPECIALTIES INC
15 POPPY HOUSE RD
RIO VISTA, CA 94571
Site 2 of 3 in cluster D

LUST **S120761132**
N/A

Relative:
Lower
Actual:
31 ft.

SOLANO CO. LUST:
Name: CALIFORNIA VEGETABLE SPECIALTIES INC
Address: 15 POPPY HOUSE RD
City,State,Zip: RIO VISTA, CA 94571
Region: SOLANO
Facility ID: 70373
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-374-2111
Program: 29S
Inventory Number: 1
Inventory Type: General Site Mitigation (100)
Inventory Description: CREATED IN ERROR
Last service/permit exp: REVIEW REPORTS / POST REM MONIT
Last service date: 06/15/2011
District: SUP-DIST NO 3036
Inspector: Bernardo, Josuwa

D15
SSE
1/8-1/4
0.197 mi.
1042 ft.

CALIFORNIA ENDIVE FARMS DBA CALIFORNIA VEGETABLE S
15 POPPY HOUSE RD
RIO VISTA, CA 94571
Site 3 of 3 in cluster D

RCRA NonGen / NLR **1024864681**
CAL000433245

Relative:
Lower
Actual:
31 ft.

RCRA NonGen / NLR:
Date form received by agency: 2018-01-22 00:00:00.0
Facility name: CALIFORNIA ENDIVE FARMS DBA CALIFORNIA VEGETABLE SPECIALTIES
Facility address: 15 POPPY HOUSE RD
RIO VISTA, CA 94571
EPA ID: CAL000433245
Mailing address: PO BOX 638
RIO VISTA, CA 94571
Contact: CELINA LEMUS

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

CALIFORNIA ENDIVE FARMS DBA CALIFORNIA VEGETABLE SPECIALTIES (Continued)

1024864681

Contact address: 15 POPPY HOUSE RD
 RIO VISTA, CA 94571
 Contact telephone: 707-375-1114
 Contact email: CLEMUS@ENDIVE.COM
 EPA Region: 09
 Classification: Non-Generator
 Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: CELINA LEMUS
 Owner/operator address: 15 POPPY HOUSE RD
 RIO VISTA, CA 94571
 Owner/operator telephone: 707-375-1114
 Legal status: Other
 Owner/Operator Type: Operator

 Owner/operator name: PLANASA US HOLDINGS LLC
 Owner/operator address: 21008 DERSCH RD
 ANDERSON, CA 96007
 Owner/operator telephone: 530-524-2468
 Legal status: Other
 Owner/Operator Type: Owner

Handler Activities Summary:

U.S. importer of hazardous waste: No
 Mixed waste (haz. and radioactive): No
 Recycler of hazardous waste: No
 Transporter of hazardous waste: Yes
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: No
 Furnace exemption: No
 Used oil fuel burner: No
 Used oil processor: No
 User oil refiner: No
 Used oil fuel marketer to burner: No
 Used oil Specification marketer: No
 Used oil transfer facility: No
 Used oil transporter: No

Violation Status: No violations found

16
 SE
 1/8-1/4
 0.214 mi.
 1129 ft.

RIO VISTA MUNICIPAL AIRPORT
1051 ST FRANCIS WAY
RIO VISTA, CA 94571

UST
SWEEPS UST
HIST UST
NPDES
WDS
CIWQS

U001598231
N/A

Relative:
Lower

SOLANO CO. UST:

Actual:
32 ft.

Name: RIO VISTA MUNICIPAL AIRPORT
 Address: 1051 ST FRANCIS WAY
 City,State,Zip: RIO VISTA, CA 94571
 Facility Id: 70022
 Facility Status: Inactive
 Decode for Facility Status: Closed

Inventory Number: 1

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUNICIPAL AIRPORT (Continued)

U001598231

Inventory Type: Underground Storage Tank (1)
Permit Expire/Last Service: LETTER/REPORT REVIEW
Last Service Date: 04/11/13
District: SUP-DIST NO 3038
Inspector: Osier, Courtney A

Name: RIO VISTA MUNICIPAL AIRPORT
Address: 1051 ST FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571

Inventory Number: 2
Inventory Type: Underground Storage Tank (1)
Permit Expire/Last Service: LETTER/REPORT REVIEW
Last Service Date: 01/05/04
District: SUP-DIST NO 3038
Inspector: Osier, Courtney A

SWEEPS UST:

Name: RIO VISTA MUNICIPAL AIRPORT
Address: 1051 ST FRANCIS WAY
City: RIO VISTA
Status: Active
Comp Number: 70022
Number: 9
Referral Date: 06-22-93
Action Date: 04-01-94
Created Date: 02-29-88
Owner Tank Id: 80
SWRCB Tank Id: 48-000-070022-000001
Tank Status: A
Capacity: 6000
Active Date: 04-30-93
Tank Use: M.V. FUEL
STG: P
Content: AVIA. GAS
Number Of Tanks: 2

Name: RIO VISTA MUNICIPAL AIRPORT
Address: 1051 ST FRANCIS WAY
City: RIO VISTA
Status: Active
Comp Number: 70022
Number: 9
Referral Date: 06-22-93
Action Date: 04-01-94
Created Date: 02-29-88
Owner Tank Id: 100
SWRCB Tank Id: 48-000-070022-000002
Tank Status: A
Capacity: 10000
Active Date: 04-30-93
Tank Use: M.V. FUEL
STG: P
Content: AVIA. GAS

HIST UST:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUNICIPAL AIRPORT (Continued)

U001598231

Name: RIO VISTA MUNICIPAL AIRPORT
Address: 1051 ST FRANCIS WAY
City, State, Zip: RIO VISTA, CA 94571
File Number: 0002126F
URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0002126F.pdf>
Region: STATE
Facility ID: 00000009570
Facility Type: Gas Station
Other Type: AVIATION FUEL STA.
Contact Name: ELTON J. EDDY
Telephone: 7073745628
Owner Name: ELTON J. EDDY RIO VISTA AVIATI
Owner Address: 1051 ST. FRANCIS WAY
Owner City, St, Zip: RIO VISTA, CA 94571
Total Tanks: 0002

Tank Num: 001
Container Num: 80
Year Installed: 1974
Tank Capacity: 00006000
Tank Used for: PRODUCT
Type of Fuel: 06
Leak Detection: Stock Inventor, Vapor Sniff Well, Pressure Test

Tank Num: 002
Container Num: 100
Year Installed: 1974
Tank Capacity: 00010000
Tank Used for: PRODUCT
Type of Fuel: 06
Leak Detection: Stock Inventor, Vapor Sniff Well, Pressure Test

[Click here for Geo Tracker PDF:](#)

NPDES:

Name: CEMEX
Address: 1051 SAINT FRANCIS WAY
City, State, Zip: RIO VISTA, CA 94571
WDID: 5S48I014653
Regulatory Measure Type: Industrial
Status: Terminated
Status Date: 11/16/2015
Operator Name: Cemex Construction Materials Pacific LLC
Operator Address: 2365 Iron Point Road Suite 120
Operator City: Folsom
Operator State: California
Operator Zip: 95630

NPDES as of 03/2018:

NPDES Number: CAS000001
Status: Terminated
Agency Number: 0
Region: 5S
Regulatory Measure ID: 198167
Order Number: 97-03-DWQ
Regulatory Measure Type: Enrollee
WDID: 5S48I014653

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA MUNICIPAL AIRPORT (Continued)

U001598231

Program Type: Industrial
Effective Date Of Regulatory Measure: 10/07/1998
Termination Date Of Regulatory Measure: 11/16/2015
Discharge Name: Cemex Construction Materials Pacific LLC
Discharge Address: 2365 Iron Point Road Suite 120
Discharge City: Folsom
Discharge State: California
Discharge Zip: 95630

Region: 5S
Regulatory Measure ID: 198167
Regulatory Measure Type: Industrial
WDID: 5S481014653
Termination Date Of Regulatory Measure: 11/16/2015
Received Date: 05/09/2008
Processed Date: 10/07/1998
Status: Terminated
Status Date: 11/16/2015
Place Size: 1.9
Place Size Unit: Acres
Contact: Steve Alexander
Contact Title: Area Manager
Contact Phone: 707-580-3025
Contact Email: stevenl.alexander@cemex.com
Operator Name: Cemex Construction Materials Pacific LLC
Operator Type: Private Individual
Developer State: California
Dir Discharge Uswater Ind: N
Receiving Water Name: Sacramento Delta
Certifier: Brian Mastin
Certifier Title: Environmental Manager
Certification Date: 31-AUG-15
Primary Sic: 3273-Ready-Mixed Concrete
Secondary Sic: 1442-Construction Sand and Gravel

WDS:

Name: ANTIOCH ROCK & READY MIX RIO V
Address: 1051 Saint Francis Way
City: RIO VISTA
Facility ID: 5S 071014653
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion: 0
Facility Telephone: 9257542717
Facility Contact: HAYCOX MIKE
Agency Name: NOR CAL
Agency Address: 3600 Wilbur Ave
Agency City,St,Zip: Antioch 945098536

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RIO VISTA MUNICIPAL AIRPORT (Continued)

U001598231

Agency Contact: HAYCOX MIKE
 Agency Telephone: 9257542717
 Agency Type: Private
 SIC Code: 0
 Design Flow: 0
 Baseline Flow: 0
 Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
 Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

CIWQS:

Name: CEMEX
 Address: 1051 SAINT FRANCIS WAY
 City, State, Zip: RIO VISTA, CA 94571
 Agency: Cemex Construction Materials Pacific LLC
 Agency Address: 2365 Iron Point Road Suite 120, Folsom, CA 95630
 Place/Project Type: Industrial - Ready-Mixed Concrete
 SIC/NAICS: 3273(+)
 Region: 5S
 Program: INDSTW
 Regulatory Measure Status: Terminated
 Regulatory Measure Type: Storm water industrial
 Order Number: 2014-0057-DWQ
 WDID: 5S481014653
 NPDES Number: CAS000001
 Effective Date: 10/07/1998
 Termination Date: 11/16/2015
 Enforcement Actions within 5 years: 1
 Violations within 5 years: 1
 Latitude: 38.17031
 Longitude: -121.68418

17
 ESE
 1/8-1/4
 0.234 mi.
 1237 ft.

ASTA CONSTRUCTION CO., INC.
RIO VISTA SAND PIT
SOLANO (County), CA

US MINES M300003232
N/A

Relative:
Lower
Actual:
32 ft.

US MINES 3:
 Mine ID: 4064
 Commodity: Sand and Gravel
 Facility Name: Rio Vista Sand Pit
 Company: Asta Construction Co., Inc.
 Facility State: California
 Facility County: Solano
 Latitude: 38.1707
 Longitude: -121.6838
 Site Type: M/P

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

18
SE
1/4-1/2
0.281 mi.
1483 ft.

ASTA CONSTRUCTION CO
1090 ST FRANCIS WAY
RIO VISTA, CA 94571

LUST **U003641559**
UST **N/A**
SWEEPS UST
CERS

Relative:
Lower
Actual:
33 ft.

LUST:

Name: ASTA CONSTRUCTION INC.
Address: 1090 ST. FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Lead Agency: SOLANO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0609576521
Global Id: T0609576521
Latitude: 38.16949633
Longitude: -121.6834464
Status: Completed - Case Closed
Status Date: 01/23/2009
RB Case Number: 480221
Local Agency: SOLANO COUNTY
File Location: Local Agency
Local Case Number: 70002
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon

LUST:

Global Id: T0609576521
Contact Type: Local Agency Caseworker
Contact Name: SOLANO COUNTY
Organization Name: SOLANO COUNTY
Address: 675 TEXAS STREET, SUITE 2500
City: FAIRFIELD

LUST:

Global Id: T0609576521
Action Type: ENFORCEMENT
Date: 01/10/2017
Action: Letter - Notice

Global Id: T0609576521
Action Type: ENFORCEMENT
Date: 01/31/2017
Action: Closure/No Further Action Letter

Global Id: T0609576521
Action Type: Other
Date: 04/22/2003
Action: Leak Discovery

Global Id: T0609576521
Action Type: RESPONSE
Date: 01/03/2017
Action: Request for Closure - Regulator Responded

Global Id: T0609576521
Action Type: Other
Date: 04/22/2003
Action: Leak Stopped

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASTA CONSTRUCTION CO (Continued)

U003641559

Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	07/29/2005
Action:	File review
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	08/20/2003
Action:	File review
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	07/25/2008
Action:	Notification - Public Notice of Case Closure
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	08/18/2008
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	07/25/2008
Action:	LOP Case Closure Summary to RB
Global Id:	T0609576521
Action Type:	Other
Date:	06/18/2003
Action:	Leak Reported
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	01/23/2009
Action:	Closure/No Further Action Letter
Global Id:	T0609576521
Action Type:	RESPONSE
Date:	02/22/2007
Action:	Monitoring Report - Quarterly
Global Id:	T0609576521
Action Type:	RESPONSE
Date:	08/17/2006
Action:	Monitoring Report - Quarterly
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	06/18/2003
Action:	Notice of Responsibility
Global Id:	T0609576521
Action Type:	ENFORCEMENT
Date:	03/28/2006
Action:	File review
Global Id:	T0609576521
Action Type:	ENFORCEMENT

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASTA CONSTRUCTION CO (Continued)

U003641559

Date: 06/29/2005
Action: * Verbal Communication

LUST:

Global Id: T0609576521
Status: Open - Case Begin Date
Status Date: 04/22/2003

Global Id: T0609576521
Status: Open - Site Assessment
Status Date: 06/18/2003

Global Id: T0609576521
Status: Open - Site Assessment
Status Date: 08/11/2003

Global Id: T0609576521
Status: Open - Site Assessment
Status Date: 09/01/2003

Global Id: T0609576521
Status: Open - Verification Monitoring
Status Date: 05/01/2005

Global Id: T0609576521
Status: Completed - Case Closed
Status Date: 01/23/2009

SOLANO CO. LUST:

Name: ASTA CONSTRUCTION CO
Address: 1090 ST FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Region: SOLANO
Facility ID: 70002
Facility Status: I
Facility Status Desc: Inactive
Facility Phone: 707-374-6472
Program: 29S
Inventory Number: 1
Inventory Type: LOP - Closed Site (128)
Inventory Description: Closed 1/31/2017
Last service/permit exp: INVESTIGATION - UNCLASSIFIED
Last service date: 10/12/2016
District: SUP-DIST NO 3037
Inspector: Kaltreider, Misty

LUST REG 5:

Name: ASTA CONSTRUCTION INC.
Address: 1090 ST. FRANCIS WAY
City: RIO VISTA
Region: 5
Status: Post remedial action monitoring
Case Number: 480221
Case Type: Drinking Water Aquifer affected
Substance: HYDROCARBONS

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASTA CONSTRUCTION CO (Continued)

U003641559

Staff Initials: JIM
Lead Agency: Local
Program: LUST
MTBE Code: N/A

SOLANO CO. UST:

Name: ASTA CONSTRUCTION CO
Address: 1090 ST FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Facility Id: 70002
Facility Status: Inactive
Decode for Facility Status: Closed
Facility Phone: 707-374-6472

Inventory Number: 1
Inventory Type: Permanent Closure (192)
Inventory Description: Date Closed 12/16/15
Permit Expire/Last Service: LETTER/REPORT REVIEW 05/31/16, 05/31/16
Last Service Date: 07/08/19
District: SUP-DIST NO 3038
Inspector: Osier, Courtney A

Name: ASTA CONSTRUCTION CO
Address: 1090 ST FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571

Inventory Number: 2
Inventory Type: Permanent Closure (192)
Inventory Description: WASTE ENGINE OIL
Permit Expire/Last Service: RECORD REVIEW 03/31/07, 03/31/07
Last Service Date: 06/08/06
District: SUP-DIST NO 3038
Inspector: Osier, Courtney A

UST:

Name: ASTA CONSTRUCTION CO., INC
Address: 1090 SAINT FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Facility ID: 48-000-070002
Permitting Agency: Solano County Environmental Health
Latitude: 38.16986
Longitude: -121.68361

Name: ASTA CONSTRUCTION CO
Address: 1090 SAINT FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Facility ID: 70002
Permitting Agency: SOLANO COUNTY
Latitude: 38.171215
Longitude: -121.682258

SWEEPS UST:

Name: ASTA CONSTRUCTION CO
Address: 1090 ST FRANCIS WAY
City: RIO VISTA
Status: Active

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ASTA CONSTRUCTION CO (Continued)

U003641559

Comp Number: 70002
Number: 1
Referral Date: 06-22-93
Action Date: 06-22-93
Created Date: 01-24-92
SWRCB Tank Id: 48-000-070002-000001
Tank Status: A
Capacity: 1
Active Date: 05-31-92
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 1

CERS:

Name: ASTA CONSTRUCTION INC.
Address: 1090 ST. FRANCIS WAY
City,State,Zip: RIO VISTA, CA 94571
Site ID: 257735
CERS ID: T0609576521
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
Entity Name: SOLANO COUNTY - SOLANO COUNTY
Affiliation Address: 675 TEXAS STREET, SUITE 2500
Affiliation City: FAIRFIELD
Affiliation State: CA

19
ESE
1/4-1/2
0.317 mi.
1674 ft.

RIO VISTA LANDFILL
AIRPORT RD
RIO VISTA, CA 0

CPS-SLIC S101612298
WMUDS/SWAT N/A
WDS

Relative:
Lower
Actual:
18 ft.

SLIC REG 5:
Name: Asta Sand Pit**
Address: Airport Rd
City: Rio Vista
Region: 5
Facility Status: Closed by County
Unit: Facility is a Spill or site
Pollutant: Hydrocarbon
Lead Agency: SOL Co.
Date Filed: 05/24/02
Report Date: / /
Date Added: Not reported
Date Closed: Not reported

WMUDS/SWAT:

Edit Date: 19950601
Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA LANDFILL (Continued)

S101612298

Primary Waste: SLDWST
Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
Base Meridian: MD
Tonnage: 15
Municipal Solid Waste: True
Superorder: True
Open To Public: False
Waste List: False
Agency Type: City
Agency Name: RIO VISTA, CITY OF
Agency Address: PO BOX 745
Agency City,St,Zip: RIO VISTA CA 94571
Agency Contact: LARRY PROFITT
Agency Telephone: 7073746451
Land Owner Name: RIO VISTA SANITATION SERVICE
Land Owner Address: 207 MAIN STREET
Land Owner City,St,Zip: RIO VISTA, CA 94571
Region: 5S
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
SWAT Facility Name: RIO VISTA SANITARY LANDFILL
Primary SIC: 4953
Last Facility Editors: EDWEDWSVM
Waste Discharge System: True
Solid Waste Assessment Test Program: True
Toxic Pits Cleanup Act Program: False
Resource Conservation Recovery Act: False
Department of Defence: False
Solid Waste Assessment Test Program: RIO VISTA SANITATION SERVICE
Threat to Water Quality: Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Sub Chapter 15: True
Regional Board Project Officer: JDM
Number of WMUDS at Facility: 1
Section Range: 04N03E19
RCRA Facility: No
Waste Discharge Requirements: A
Self-Monitoring Rept. Frequency: Quarterly Submittal
Waste Discharge System ID: 5A480304001
Solid Waste Information ID: 48-AA-0004

WDS:

Name: RIO VISTA LANDFILL
Address: AIRPORT RD
City: RIO VISTA
Facility ID: Sacramento River 480304001
Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
Subregion: 0
Facility Telephone: 7073746747

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

RIO VISTA LANDFILL (Continued)

S101612298

Facility Contact: FELIX AJAYI-DIR PUB WORKS
 Agency Name: RIO VISTA CITY OF
 Agency Address: PO BOX 745
 Agency City,St,Zip: RIO VISTA 94571
 Agency Contact: BRADLEY BAXTER
 Agency Telephone: 7073746451
 Agency Type: City
 SIC Code: 4953
 Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
 Primary Waste: SLDWST
 Waste2: Solid Wastes
 Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).
 Design Flow: 0
 Baseline Flow: 0
 Reclamation: No reclamation requirements associated with this facility.
 POTW: The POTW Does not have an approved pretreatment program. Some POTWs may have local pretreatment programs that have not been approved by the regional board and/or EPA.
 Treat To Water: Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
 Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

20
 ESE
 1/4-1/2
 0.447 mi.
 2360 ft.

RIO VISTA SANITARY LANDFILL
301 AIRPORT ROAD
RIO VISTA, CA 94571

SWF/LF **S102362712**
CERS **N/A**

Relative: SWF/LF (SWIS):
Lower Name: RIO VISTA SANITARY LANDFILL
Actual: Address: 301 AIRPORT ROAD
12 ft. City,State,Zip: RIO VISTA, CA
 Facility ID: 48-AA-0004
 Lat/Long: 38.1775 / -121.68944
 Owner Name: City of Rio Vista
 Owner Telephone: 7073742176
 Owner Address2: One Main Street
 Owner City,St,Zip: Rio Vista, CA 94571
 Operational Status: Closed
 Operator: Rio Vista Sanitation Service
 Operator Phone: 7073745644
 Operator Address2: P.O. Box 607
 Operator City,St,Zip: Rio Vista, CA 94571

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

RIO VISTA SANITARY LANDFILL (Continued)

S102362712

Permit Date: 02/27/1984
Permit Status: Permitted
Permitted Acreage: \$20.00
Activity: Solid Waste Disposal Site
Regulation Status: Permitted
GIS Source: Map
Category: Disposal
Unit Number: 01
Inspection Frequency: Quarterly
Accepted Waste: Mixed municipal
Closure Date: 10/01/1992
Closure Type: Actual
Disposal Acreage: \$0.00
SWIS Num: 48-AA-0004
Waste Discharge Requirement Num: II
Program Type: Financial Assurance Responsibilities
Permitted Throughput with Units: 15
Actual Throughput with Units: Tons/day
Lat/Long: 38.1775 / -121.68944

CERS:

Name: RIO VISTA SANITARY LANDFILL
Address: 301 AIRPORT ROAD
City,State,Zip: RIO VISTA, CA 94571
Site ID: 490291
CERS ID: 110013910688
CERS Description: US EPA Air Emission Inventory System (EIS)

Name: RIO VISTA SANITARY LANDFILL
Address: 301 AIRPORT ROAD
City,State,Zip: RIO VISTA, CA
Site ID: 511382
CERS ID: 48-AA-0004
CERS Description: Solid Waste and Recycle Sites

Affiliation:

Affiliation Type Desc: Legal Operator
Entity Name: Rio Vista Sanitation Service
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571
Affiliation Phone: 7073745644

Affiliation Type Desc: Legal Owner
Entity Name: City of Rio Vista
Affiliation City: Rio Vista
Affiliation State: CA
Affiliation Zip: 94571
Affiliation Phone: 7073742176

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

21
ESE
1/4-1/2
0.461 mi.
2436 ft.

FISHER BROS. INC.
550 RIVER RD
RIO VISTA, CA 94571

LUST S103934429
SWEEPS UST N/A
HIST UST
HIST CORTESE
CERS

Relative:
Lower

LUST:

Actual:
11 ft.

Name: FISHER BROTHERS
Address: 550 RIVER RD
City,State,Zip: RIO VISTA, CA 94571
Lead Agency: SOLANO COUNTY LOP
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0609500340
Global Id: T0609500340
Latitude: 38.1707314
Longitude: -121.6783841
Status: Completed - Case Closed
Status Date: 05/14/1996
RB Case Number: 480052
Local Agency: SOLANO COUNTY
Local Case Number: 70013
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline

LUST:

Global Id: T0609500340
Contact Type: Local Agency Caseworker
Contact Name: SOLANO COUNTY
Organization Name: SOLANO COUNTY
Address: 675 TEXAS STREET, SUITE 2500
City: FAIRFIELD

LUST:

Global Id: T0609500340
Action Type: ENFORCEMENT
Date: 01/07/1993
Action: Unauthorized Release Form

Global Id: T0609500340
Action Type: RESPONSE
Date: 02/23/1988
Action: Correspondence

Global Id: T0609500340
Action Type: ENFORCEMENT
Date: 05/14/1996
Action: Closure/No Further Action Letter

Global Id: T0609500340
Action Type: RESPONSE
Date: 03/07/1989
Action: Correspondence

Global Id: T0609500340
Action Type: RESPONSE
Date: 05/18/1988
Action: Correspondence

Global Id: T0609500340

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FISHER BROS. INC. (Continued)

S103934429

Action Type: Other
Date: 04/20/1988
Action: Leak Stopped

Global Id: T0609500340
Action Type: Other
Date: 01/07/1993
Action: Leak Reported

Global Id: T0609500340
Action Type: Other
Date: 04/20/1988
Action: Leak Discovery

LUST:

Global Id: T0609500340
Status: Open - Case Begin Date
Status Date: 04/20/1988

Global Id: T0609500340
Status: Completed - Case Closed
Status Date: 05/14/1996

SOLANO CO. LUST:

Name: FISHER BROS., INC.
Address: 550 RIVER RD
City,State,Zip: RIO VISTA, CA 94571
Region: SOLANO
Facility ID: 70013
Facility Status: I
Facility Status Desc: Inactive
Program: 29S
Inventory Number: 1
Inventory Type: SLIC - Closed Site (138)
District: SUP-DIST NO 3037
Inspector: Kaltreider, Misty

LUST REG 5:

Name: FISHER BROTHERS
Address: 550 RIVER RD
City: RIO VISTA
Region: 5
Status: Case Closed
Case Number: 480052
Case Type: Soil only
Substance: GASOLINE
Staff Initials: JIM
Lead Agency: Local
Program: LUST
MTBE Code: N/A

SWEEPS UST:

Name: FISHER BROS. INC.
Address: 550 RIVER RD

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

FISHER BROS. INC. (Continued)

S103934429

City: RIO VISTA
 Comp Number: 70013
 SWRCB Tank Id: 48-000-070013-000001
 Capacity: 1
 Tank Use: UNKNOWN
 STG: PRODUCT
 Number Of Tanks: 1

HIST UST:

Name: FISHER BROS INC
 Address: 550 RIVER ROAD
 City,State,Zip: RIO VISTA, CA 94571
 File Number: 00021284
 URL: <http://geotracker.waterboards.ca.gov/ustpdfs/pdf/00021284.pdf>

Click here for Geo Tracker PDF:

HIST CORTESE:

edr_fname: FISHER BROTHERS
 edr_fadd1: 550 RIVER
 City,State,Zip: RIO VISTA, CA 94571
 Region: CORTESE
 Facility County Code: 48
 Reg By: LTNKA
 Reg Id: 480052

CERS:

Name: FISHER BROTHERS
 Address: 550 RIVER RD
 City,State,Zip: RIO VISTA, CA 94571
 Site ID: 189524
 CERS ID: T0609500340
 CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc: Local Agency Caseworker
 Entity Name: SOLANO COUNTY - SOLANO COUNTY
 Affiliation Address: 675 TEXAS STREET, SUITE 2500
 Affiliation City: FAIRFIELD
 Affiliation State: CA

22
SSE
1/2-1
0.609 mi.
3214 ft.

D.C.I. & B.S.I.
101 BLACKWELDER DRIVE
RIO VISTA, CA 92570

EMI S100178961
Notify 65 N/A

Relative:
Lower
Actual:
11 ft.

EMI:
 Name: D.C.I. & B.S.I.
 Address: 101 BLACKWELDER DRIVE
 City,State,Zip: RIO VISTA, CA 92570
 Year: 1995
 County Code: 48
 Air Basin: SV
 Facility ID: 5159

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D.C.I. & B.S.I. (Continued)

S100178961

Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 4
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 1996
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 4
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 1997
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 4
Reactive Organic Gases Tons/Yr: 4
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 1998
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

D.C.I. & B.S.I. (Continued)

S100178961

Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 1999
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 2000
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 0
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
Address: 101 BLACKWELDER DRIVE
City,State,Zip: RIO VISTA, CA 92570
Year: 2001
County Code: 48
Air Basin: SV
Facility ID: 5159
Air District Name: YS
SIC Code: 3531
Air District Name: YOLO/SOLANO AQMD
Total Organic Hydrocarbon Gases Tons/Yr: 1
Reactive Organic Gases Tons/Yr: 1
Carbon Monoxide Emissions Tons/Yr: 0

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

D.C.I. & B.S.I. (Continued)

S100178961

NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers and Smlr Tons/Yr:0

Name: D.C.I. & B.S.I.
 Address: 101 BLACKWELDER DRIVE
 City,State,Zip: RIO VISTA, CA 92570
 Year: 2002
 County Code: 48
 Air Basin: SV
 Facility ID: 5159
 Air District Name: YS
 SIC Code: 3531
 Air District Name: YOLO/SOLANO AQMD
 Total Organic Hydrocarbon Gases Tons/Yr: 1
 Reactive Organic Gases Tons/Yr: 1
 Carbon Monoxide Emissions Tons/Yr: 0
 NOX - Oxides of Nitrogen Tons/Yr: 0
 SOX - Oxides of Sulphur Tons/Yr: 0
 Particulate Matter Tons/Yr: 0
 Part. Matter 10 Micrometers and Smlr Tons/Yr:0

NOTIFY 65:

23
SSW
1/2-1
0.739 mi.
3901 ft.

PG&E RIO VISTA SERVICE CENTER
410 HIGHWAY 12
RIO VISTA, CA 94571

SWEEPS UST **S100225708**
NPDES **N/A**
Notify 65

Relative:
Lower
Actual:
22 ft.

SWEEPS UST:
 Name: PG&E RIO VISTA SERVICE CENTER
 Address: 410 HIGHWAY 12
 City: RIO VISTA
 Status: Active
 Comp Number: 70021
 Number: 9
 Board Of Equalization: 44-002884
 Referral Date: 06-22-93
 Action Date: 06-22-93
 Created Date: 02-29-88
 SWRCB Tank Id: 48-000-070021-000001
 Tank Status: A
 Capacity: 8000
 Active Date: 03-26-93
 Tank Use: M.V. FUEL
 STG: P
 Content: REG UNLEADED
 Number Of Tanks: 2

Name: PG&E RIO VISTA SERVICE CENTER
 Address: 410 HIGHWAY 12
 City: RIO VISTA
 Status: Active
 Comp Number: 70021
 Number: 9

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

PG&E RIO VISTA SERVICE CENTER (Continued)

S100225708

Board Of Equalization: 44-002884
Referral Date: 06-22-93
Action Date: 06-22-93
Created Date: 02-29-88
SWRCB Tank Id: 48-000-070021-000002
Tank Status: A
Capacity: 4000
Active Date: 03-26-93
Tank Use: M.V. FUEL
STG: P
Content: DIESEL

NPDES:

Name: RIO VISTA SERVICE CENTER
Address: 410 HIGHWAY 12
City,State,Zip: RIO VISTA, CA 94571
WDID: 5S48W000919
Regulatory Measure Type: Construction
Status: Expired
Status Date: 09/28/2012
Operator Name: Pacific Gas and Electric Company
Operator Address: 3401 Crow Canyon Road
Operator City: San Ramon
Operator State: California
Operator Zip: 94583

NOTIFY 65:

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
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NO SITES FOUND

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov.Date	Arvl. Date	Active Date
CA	AST	Aboveground Petroleum Storage Tank Facilities	California Environmental Protection Agency	07/06/2016	07/12/2016	09/19/2016
CA	BROWNFIELDS	Considered Brownfields Sites Listing	State Water Resources Control Board	09/23/2019	09/24/2019	11/06/2019
CA	CA BOND EXP. PLAN	Bond Expenditure Plan	Department of Health Services	01/01/1989	07/27/1994	08/02/1994
CA	CA FID UST	Facility Inventory Database	California Environmental Protection Agency	10/31/1994	09/05/1995	09/29/1995
CA	CDL	Clandestine Drug Labs	Department of Toxic Substances Control	06/30/2018	07/16/2019	09/24/2019
CA	CERS	CalEPA Regulated Site Portal Data	California Environmental Protection Agency	10/21/2019	10/22/2019	01/03/2020
CA	CERS HAZ WASTE	CERS HAZ WASTE	CalEPA	10/21/2019	10/22/2019	01/02/2020
CA	CERS TANKS	California Environmental Reporting System (CERS) Tanks	California Environmental Protection Agency	10/21/2019	10/22/2019	01/03/2020
CA	CHMIRS	California Hazardous Material Incident Report System	Office of Emergency Services	05/15/2019	06/24/2019	08/21/2019
CA	CIWQS	California Integrated Water Quality System	State Water Resources Control Board	12/03/2019	12/04/2019	02/04/2020
CA	CORTESE	"Cortese" Hazardous Waste & Substances Sites List	CAL EPA/Office of Emergency Information	09/23/2019	09/24/2019	11/06/2019
CA	CPS-SLIC	Statewide SLIC Cases (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/06/2019
CA	CUPA LIVERMORE-PLEASANTON	CUPA Facility Listing	Livermore-Pleasanton Fire Department	05/01/2019	05/14/2019	07/17/2019
CA	CUPA SAN FRANCISCO CO	CUPA Facility Listing	San Francisco County Department of Environment	10/31/2019	11/01/2019	12/11/2019
CA	DEED	Deed Restriction Listing	DTSC and SWRCB	12/03/2019	12/04/2019	02/04/2020
CA	DRYCLEAN AVAQM/D	Antelope Valley Air Quality Management District Drycleaner L	Antelope Valley Air Quality Management Distri	12/02/2019	12/03/2019	02/04/2020
CA	DRYCLEAN SOUTH COAST	South Coast Air Quality Management District Drycleaner Listi	South Coast Air Quality Management District	09/27/2019	10/01/2019	11/07/2019
CA	DRYCLEANERS	Cleaner Facilities	Department of Toxic Substances Control	09/06/2019	10/11/2019	12/12/2019
CA	EMI	Emissions Inventory Data	California Air Resources Board	12/31/2017	06/24/2019	08/22/2019
CA	ENF	Enforcement Action Listing	State Water Resources Control Board	07/19/2019	07/22/2019	09/26/2019
CA	ENVIROSTOR	EnviroStor Database	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	HAULERS	Registered Waste Tire Haulers Listing	Integrated Waste Management Board	11/15/2019	11/15/2019	01/23/2020
CA	HAZNET	Facility and Manifest Data	California Environmental Protection Agency	12/31/2017	05/29/2019	07/22/2019
CA	HIST CAL-SITES	Calsites Database	Department of Toxic Substances Control	08/08/2005	08/03/2006	08/24/2006
CA	HIST CORTESE	Hazardous Waste & Substance Site List	Department of Toxic Substances Control	04/01/2001	01/22/2009	04/08/2009
CA	HIST UST	Hazardous Substance Storage Container Database	State Water Resources Control Board	10/15/1990	01/25/1991	02/12/1991
CA	HWP	EnviroStor Permitted Facilities Listing	Department of Toxic Substances Control	11/18/2019	11/19/2019	01/23/2020
CA	HWT	Registered Hazardous Waste Transporter Database	Department of Toxic Substances Control	10/07/2019	10/08/2019	11/07/2019
CA	HWTS	Hazardous Waste Tracking System	-> Agency name here.	08/12/2019	08/16/2019	02/03/2020
CA	ICE	ICE	Department of Toxic Substances Control	11/18/2019	11/19/2019	01/23/2020
CA	LDS	Land Disposal Sites Listing (GEOTRACKER)	State Water Quality Control Board	09/09/2019	09/09/2019	11/05/2019
CA	LIENS	Environmental Liens Listing	Department of Toxic Substances Control	12/02/2019	12/04/2019	02/04/2020
CA	LUST	Leaking Underground Fuel Tank Report (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	10/31/2019
CA	LUST REG 1	Active Toxic Site Investigation	California Regional Water Quality Control Boa	02/01/2001	02/28/2001	03/29/2001
CA	LUST REG 2	Fuel Leak List	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	LUST REG 3	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	05/19/2003	05/19/2003	06/02/2003
CA	LUST REG 4	Underground Storage Tank Leak List	California Regional Water Quality Control Boa	09/07/2004	09/07/2004	10/12/2004
CA	LUST REG 5	Leaking Underground Storage Tank Database	California Regional Water Quality Control Boa	07/01/2008	07/22/2008	07/31/2008
CA	LUST REG 6L	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	09/09/2003	09/10/2003	10/07/2003
CA	LUST REG 6V	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	06/07/2005	06/07/2005	06/29/2005
CA	LUST REG 7	Leaking Underground Storage Tank Case Listing	California Regional Water Quality Control Boa	02/26/2004	02/26/2004	03/24/2004
CA	LUST REG 8	Leaking Underground Storage Tanks	California Regional Water Quality Control Boa	02/14/2005	02/15/2005	03/28/2005
CA	LUST REG 9	Leaking Underground Storage Tank Report	California Regional Water Quality Control Boa	03/01/2001	04/23/2001	05/21/2001
CA	MCS	Military Cleanup Sites Listing (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/05/2019
CA	MILITARY PRIV SITES	Military Privatized Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	MILITARY UST SITES	Military UST Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	MINES	Mines Site Location Listing	Department of Conservation	09/09/2019	09/09/2019	11/05/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov.Date	Arvl. Date	Active Date
CA	MWMP	Medical Waste Management Program Listing	Department of Public Health	11/22/2019	12/04/2019	02/04/2020
CA	NON-CASE INFO	Non-Case Information Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	NOTIFY 65	Proposition 65 Records	State Water Resources Control Board	09/16/2019	09/18/2019	11/06/2019
CA	NPDES	NPDES Permits Listing	State Water Resources Control Board	11/11/2019	11/12/2019	01/08/2020
CA	OTHER OIL GAS	Other Oil & Gas Projects Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	PEST LIC	Pesticide Regulation Licenses Listing	Department of Pesticide Regulation	12/03/2019	12/04/2019	02/04/2020
CA	PFAS	PFAS Contamination Site Location Listing	State Water Resources Control Board	09/09/2019	09/09/2019	11/05/2019
CA	PROC	Certified Processors Database	Department of Conservation	09/09/2019	09/09/2019	11/05/2019
CA	PROD WATER PONDS	Produced Water Ponds Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	PROJECT	Project Sites (GEOTRACKER)	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	RESPONSE	State Response Sites	Department of Toxic Substances Control	10/28/2019	10/29/2019	01/07/2020
CA	RGA LF	Recovered Government Archive Solid Waste Facilities List	Department of Resources Recycling and Recover	07/01/2013	07/01/2013	01/13/2014
CA	RGA LUST	Recovered Government Archive Leaking Underground Storage Tan	State Water Resources Control Board	09/09/2019	09/09/2019	12/30/2013
CA	SAMPLING POINT	Sampling Point ? Public Sites (GEOTRACKER)	State Water Resources Control Board	08/01/2019	08/02/2019	11/01/2019
CA	SAN FRANCISCO AST	Aboveground Storage Tank Site Listing	San Francisco County Department of Public Hea	10/28/2019	10/29/2019	10/11/2019
CA	SCH	School Property Evaluation Program	Department of Toxic Substances Control	04/03/2003	04/07/2003	04/25/2003
CA	SLIC REG 1	Active Toxic Site Investigations	California Regional Water Quality Control Boa	09/30/2004	10/20/2004	11/19/2004
CA	SLIC REG 2	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	05/18/2006	05/18/2006	06/15/2006
CA	SLIC REG 3	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	11/17/2004	11/18/2004	01/04/2005
CA	SLIC REG 4	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Region Water Quality Control Board Los Angele	04/01/2005	04/05/2005	04/21/2005
CA	SLIC REG 5	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board Central	09/07/2004	09/07/2004	10/12/2004
CA	SLIC REG 6L	SLIC Sites	California Regional Water Quality Control Boa	05/24/2005	05/25/2005	06/16/2005
CA	SLIC REG 6V	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	Regional Water Quality Control Board, Victovr	11/24/2004	11/29/2004	01/04/2005
CA	SLIC REG 7	SLIC List	California Regional Quality Control Board, Co	04/03/2008	04/03/2008	04/14/2008
CA	SLIC REG 8	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Region Water Quality Control Board	09/10/2007	09/11/2007	09/28/2007
CA	SLIC REG 9	Spills, Leaks, Investigation & Cleanup Cost Recovery Listing	California Regional Water Quality Control Boa	06/06/2012	01/03/2013	02/22/2013
CA	SPILLS 90	SPILLS90 data from FirstSearch	FirstSearch	06/01/1994	07/07/2005	08/11/2005
CA	SWEEPS UST	SWEEPS UST Listing	State Water Resources Control Board	11/11/2019	11/12/2019	01/08/2020
CA	SWF/LF (SWIS)	Solid Waste Information System	Department of Resources Recycling and Recover	09/09/2019	09/09/2019	11/07/2019
CA	SWRCY	Recycler Database	Department of Conservation	07/01/1995	08/30/1995	09/26/1995
CA	TOXIC PITS	Toxic Pits Cleanup Act Sites	State Water Resources Control Board	08/20/2019	08/20/2019	11/18/2019
CA	UIC	UIC Listing	Department of Conservation	09/09/2019	09/09/2019	11/01/2019
CA	UIC GEO	Underground Injection Control Sites (GEOTRACKER)	State Water Resource Control Board	09/09/2019	09/09/2019	10/31/2019
CA	UST	Active UST Facilities	SWRCB	09/06/2019	09/09/2019	10/31/2019
CA	UST CLOSURE	Proposed Closure of Underground Storage Tank (UST) Cases	State Water Resources Control Board	08/20/2019	09/09/2019	10/31/2019
CA	UST MENDOCINO	Mendocino County UST Database	Department of Public Health	10/28/2019	09/09/2019	10/31/2019
CA	VCP	Voluntary Cleanup Program Properties	Department of Toxic Substances Control	05/08/2018	07/11/2018	09/13/2018
CA	WASTEWATER PITS	Oil Wastewater Pits Listing	RWQCB, Central Valley Region	09/09/2019	09/09/2019	11/06/2019
CA	WDR	Waste Discharge Requirements Listing	State Water Resources Control Board	06/19/2007	06/20/2007	06/29/2007
CA	WDS	Waste Discharge System	State Water Resources Control Board	09/09/2019	09/09/2019	11/01/2019
CA	WELL STIM PROJ	Well Stimulation Project (GEOTRACKER)	State Water Resources Control Board	07/03/2009	07/21/2009	08/03/2009
CA	WIP	Well Investigation Program Case List	Los Angeles Water Quality Control Board	04/01/2000	04/10/2000	05/10/2000
CA	WMUDS/SWAT	Waste Management Unit Database	State Water Resources Control Board	09/30/2017	05/08/2018	07/20/2018
US	2020 COR ACTION	2020 Corrective Action Program List	Environmental Protection Agency	09/10/2019	09/10/2019	10/17/2019
US	ABANDONED MINES	Abandoned Mines	Department of Interior	12/31/2015	02/22/2017	09/28/2017
US	BRS	Biennial Reporting System	EPA/NTIS	12/31/2018	12/04/2019	01/15/2020
US	COAL ASH DOE	Steam-Electric Plant Operation Data	Department of Energy			

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov.Date	Arvl. Date	Active Date
US	COAL ASH EPA	Coal Combustion Residues Surface Impoundments List	Environmental Protection Agency	01/12/2017	03/05/2019	11/11/2019
US	CONSENT	Superfund (CERCLA) Consent Decrees	Department of Justice, Consent Decree Library	09/30/2019	10/09/2019	12/20/2019
US	CORRACTS	Corrective Action Report	EPA	12/16/2019	12/16/2019	12/20/2019
US	DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Site Locations	EPA, Region 9	01/12/2009	05/07/2009	09/21/2009
US	DOCKET HWC	Hazardous Waste Compliance Docket Listing	Environmental Protection Agency	05/31/2018	07/26/2018	10/05/2018
US	DOD	Department of Defense Sites	USGS	12/31/2005	11/10/2006	01/11/2007
US	DOT OPS	Incident and Accident Data	Department of Transportation, Office of Pipeli	10/01/2019	10/29/2019	01/15/2020
US	Delisted NPL	National Priority List Deletions	EPA	10/25/2019	11/07/2019	11/20/2019
US	ECHO	Enforcement & Compliance History Information	Environmental Protection Agency	10/06/2019	10/08/2019	01/02/2020
US	EPA WATCH LIST	EPA WATCH LIST	Environmental Protection Agency	08/30/2013	03/21/2014	06/17/2014
US	ERNS	Emergency Response Notification System	Environmental Protection Agency	09/09/2019	09/09/2019	09/23/2019
US	FEDERAL FACILITY	Federal Facility Site Information listing	National Response Center, United States Coast	04/03/2019	04/05/2019	05/14/2019
US	FEDLAND	Federal and Indian Lands	U.S. Geological Survey	04/02/2018	04/11/2018	11/06/2019
US	FEMA UST	Underground Storage Tank Listing	FEMA	08/27/2019	08/28/2019	11/11/2019
US	FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA/Office of Prevention, Pesticides and Toxi	04/09/2009	04/16/2009	05/11/2009
US	FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fu	EPA	04/09/2009	04/16/2009	05/11/2009
US	FUDS	Formerly Used Defense Sites	EPA	11/12/2019	11/19/2019	01/28/2020
US	FUELS PROGRAM	EPA Fuels Program Registered Listing	U.S. Army Corps of Engineers	11/18/2019	11/19/2019	01/28/2020
US	FUSRAP	Formerly Utilized Sites Remedial Action Program	EPA	11/18/2019	11/19/2019	01/28/2020
US	HIST FITTS	FIFRA/TSCA Tracking System Administrative Case Listing	Department of Energy	08/08/2017	09/11/2018	09/14/2018
US	HIST FITTS INSP	FIFRA/TSCA Tracking System Inspection & Enforcement Case Lis	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	HMIRS	Hazardous Materials Information Reporting System	Environmental Protection Agency	10/19/2006	03/01/2007	04/10/2007
US	ICIS	Integrated Compliance Information System	U.S. Department of Transportation	06/24/2019	06/26/2019	09/23/2019
US	IHS OPEN DUMPS	Open Dumps on Indian Land	Environmental Protection Agency	11/18/2016	11/23/2016	02/10/2017
US	INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land	Department of Health & Human Services, Indian	04/01/2014	08/06/2014	01/29/2015
US	INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land	EPA Region 1	04/11/2019	07/29/2019	10/17/2019
US	INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land	EPA Region 10	04/16/2019	07/29/2019	10/17/2019
US	INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land	EPA Region 4	04/12/2019	07/29/2019	10/17/2019
US	INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land	EPA, Region 5	04/08/2019	07/30/2019	10/17/2019
US	INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land	EPA Region 6	05/01/2019	07/29/2019	10/17/2019
US	INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land	EPA Region 7	07/02/2019	10/16/2019	10/24/2019
US	INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land	EPA Region 8	05/02/2019	10/22/2019	11/11/2019
US	INDIAN ODI	Report on the Status of Open Dumps on Indian Lands	Environmental Protection Agency	04/08/2019	07/29/2019	10/17/2019
US	INDIAN RESERV	Indian Reservations	Environmental Protection Agency	12/31/1998	12/03/2007	01/24/2008
US	INDIAN UST R1	Underground Storage Tanks on Indian Land	USGS	12/31/2014	07/14/2015	01/10/2017
US	INDIAN UST R10	Underground Storage Tanks on Indian Land	EPA, Region 1	04/11/2019	07/30/2019	10/17/2019
US	INDIAN UST R4	Underground Storage Tanks on Indian Land	EPA Region 10	04/16/2019	07/30/2019	10/17/2019
US	INDIAN UST R5	Underground Storage Tanks on Indian Land	EPA Region 4	04/12/2019	07/29/2019	10/17/2019
US	INDIAN UST R6	Underground Storage Tanks on Indian Land	EPA Region 5	04/08/2019	07/29/2019	10/17/2019
US	INDIAN UST R7	Underground Storage Tanks on Indian Land	EPA Region 6	05/01/2019	07/29/2019	10/17/2019
US	INDIAN UST R8	Underground Storage Tanks on Indian Land	EPA Region 7	05/02/2019	07/29/2019	10/17/2019
US	INDIAN UST R9	Underground Storage Tanks on Indian Land	EPA Region 8	05/02/2019	07/29/2019	11/11/2019
US	INDIAN VCP R1	Voluntary Cleanup Priority Listing	EPA Region 9	04/08/2019	07/29/2019	10/17/2019
US	INDIAN VCP R7	Voluntary Cleanup Priority Listing	EPA, Region 1	07/27/2015	09/29/2015	02/18/2016
US	LEAD SMELTER 1	Lead Smelter Sites	EPA, Region 7	03/20/2008	04/22/2008	05/19/2008
US	LEAD SMELTER 2	Lead Smelter Sites	Environmental Protection Agency	10/25/2019	11/07/2019	11/20/2019
US	LIENS 2	CERCLA Lien Information	American Journal of Public Health	04/05/2001	10/27/2010	12/02/2010
US			Environmental Protection Agency	10/25/2019	11/07/2019	11/20/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
US	LUCIS	Land Use Control Information System	Department of the Navy	11/04/2019	11/13/2019	01/28/2020
US	MINES MRDS	Mineral Resources Data System	USGS	04/06/2018	10/21/2019	10/24/2019
US	MINES VIOLATIONS	MSHA Violation Assessment Data	DOL, Mine Safety & Health Admi	12/03/2019	12/03/2019	01/28/2020
US	MLTS	Material Licensing Tracking System	Nuclear Regulatory Commission	10/25/2019	10/25/2019	01/15/2020
US	NPL	National Priority List	EPA	10/25/2019	11/07/2019	11/20/2019
US	NPL LIENS	Federal Superfund Liens	EPA	10/15/1991	02/02/1994	03/30/1994
US	ODI	Open Dump Inventory	Environmental Protection Agency	06/30/1985	08/09/2004	09/17/2004
US	PADS	PCB Activity Database System	EPA	10/09/2019	10/11/2019	12/20/2019
US	PCB TRANSFORMER	PCB Transformer Registration Database	Environmental Protection Agency	05/24/2017	11/30/2017	12/15/2017
US	PRP	Potentially Responsible Parties	EPA	10/25/2019	11/07/2019	11/21/2019
US	Proposed NPL	Proposed National Priority List Sites	EPA	10/25/2019	11/07/2019	11/20/2019
US	RAATS	RCRA Administrative Action Tracking System	EPA	04/17/1995	07/03/1995	08/07/1995
US	RADINFO	Radiation Information Database	Environmental Protection Agency	07/01/2019	07/01/2019	09/23/2019
US	RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-LQG	RCRA - Large Quantity Generators	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-SQG	RCRA - Small Quantity Generators	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-TSDF	RCRA - Treatment, Storage and Disposal	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RCRA-VSQG	RCRA - Very Small Quantity Generators (Formerly Conditionall	Environmental Protection Agency	12/16/2019	12/16/2019	12/20/2019
US	RMP	Risk Management Plans	Environmental Protection Agency	04/25/2019	05/02/2019	05/23/2019
US	ROD	Records Of Decision	EPA	10/25/2019	11/07/2019	11/20/2019
US	SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing	Environmental Protection Agency	01/01/2017	02/03/2017	04/07/2017
US	SEMS	Superfund Enterprise Management System	EPA	10/25/2019	11/07/2019	11/21/2019
US	SEMS-ARCHIVE	Superfund Enterprise Management System Archive	EPA	10/25/2019	11/07/2019	11/21/2019
US	SSTS	Section 7 Tracking Systems	EPA	05/01/2019	10/23/2019	01/15/2020
US	TRIS	Toxic Chemical Release Inventory System	EPA	12/31/2017	11/16/2018	11/21/2019
US	TSCA	Toxic Substances Control Act	EPA	12/31/2016	06/21/2017	01/05/2018
US	UMTRA	Uranium Mill Tailings Sites	Department of Energy	08/30/2019	11/15/2019	01/28/2020
US	US AIRS (AFS)	Aerometric Information Retrieval System Facility Subsystem (EPA	10/12/2016	10/26/2016	02/03/2017
US	US AIRS MINOR	Air Facility System Data	EPA	10/12/2016	10/26/2016	02/03/2017
US	US BROWNFIELDS	A Listing of Brownfields Sites	Environmental Protection Agency	06/03/2019	06/04/2019	08/26/2019
US	US CDL	Clandestine Drug Labs	Drug Enforcement Administration	06/11/2019	06/13/2019	09/03/2019
US	US ENG CONTROLS	Engineering Controls Sites List	Environmental Protection Agency	11/22/2019	11/22/2019	01/28/2020
US	US HIST CDL	National Clandestine Laboratory Register	Drug Enforcement Administration	06/11/2019	06/13/2019	09/03/2019
US	US INST CONTROL	Sites with Institutional Controls	Environmental Protection Agency	11/22/2019	11/22/2019	01/28/2020
US	US MINES	Mines Master Index File	Department of Labor, Mine Safety and Health A	11/06/2019	11/25/2019	01/28/2020
US	US MINES 2	Ferrous and Nonferrous Metal Mines Database Listing	USGS	12/05/2005	02/29/2008	04/16/2008
US	US MINES 3	Active Mines & Mineral Plants Database Listing	USGS	04/14/2011	06/08/2011	09/13/2011
US	UXO	Unexploded Ordnance Sites	Department of Defense	12/31/2017	01/17/2019	04/01/2019

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

St	Acronym	Full Name	Government Agency	Gov Date	Arvl Date	Active Date
CT	CT MANIFEST	Hazardous Waste Manifest Data	Department of Energy & Environmental Protection	05/14/2019	12/05/2019	02/03/2020
NJ	NJ MANIFEST	Manifest Information	Department of Environmental Protection	12/31/2018	04/10/2019	05/16/2019
NY	NY MANIFEST	Facility and Manifest Data	Department of Environmental Conservation	01/01/2019	05/01/2019	06/21/2019
PA	PA MANIFEST	Manifest Information	Department of Environmental Protection	06/30/2018	07/19/2019	09/10/2019
RI	RI MANIFEST	Manifest information	Department of Environmental Management	12/31/2018	10/02/2019	12/10/2019
WI	WI MANIFEST	Manifest Information	Department of Natural Resources	05/31/2018	06/19/2019	09/03/2019
US	AHA Hospitals	Sensitive Receptor: AHA Hospitals	American Hospital Association, Inc.			
US	Medical Centers	Sensitive Receptor: Medical Centers	Centers for Medicare & Medicaid Services			
US	Nursing Homes	Sensitive Receptor: Nursing Homes	National Institutes of Health			
US	Public Schools	Sensitive Receptor: Public Schools	National Center for Education Statistics			
US	Private Schools	Sensitive Receptor: Private Schools	National Center for Education Statistics			
CA	Daycare Centers	Sensitive Receptor: Licensed Facilities	Department of Social Services			
US	Flood Zones	100-year and 500-year flood zones	Emergency Management Agency (FEMA)			
US	NWI	National Wetlands Inventory	U.S. Fish and Wildlife Service			
CA	State Wetlands	Wetland Inventory	Department of Fish and Wildlife			
US	Topographic Map	Current USGS 7.5 Minute Topographic Map	U.S. Geological Survey			
US	Oil/Gas Pipelines		Endeavor Business Media			
US	Electric Power Transmission Line Data		Endeavor Business Media			

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SNOWTIL
INDUSTRIAL COURT
RIO VISTA, CA 94571

TARGET PROPERTY COORDINATES

Latitude (North):	38.171771 - 38° 10' 18.38"
Longitude (West):	121.688353 - 121° 41' 18.07"
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	614895.2
UTM Y (Meters):	4225480.5
Elevation:	45 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5619744 RIO VISTA, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

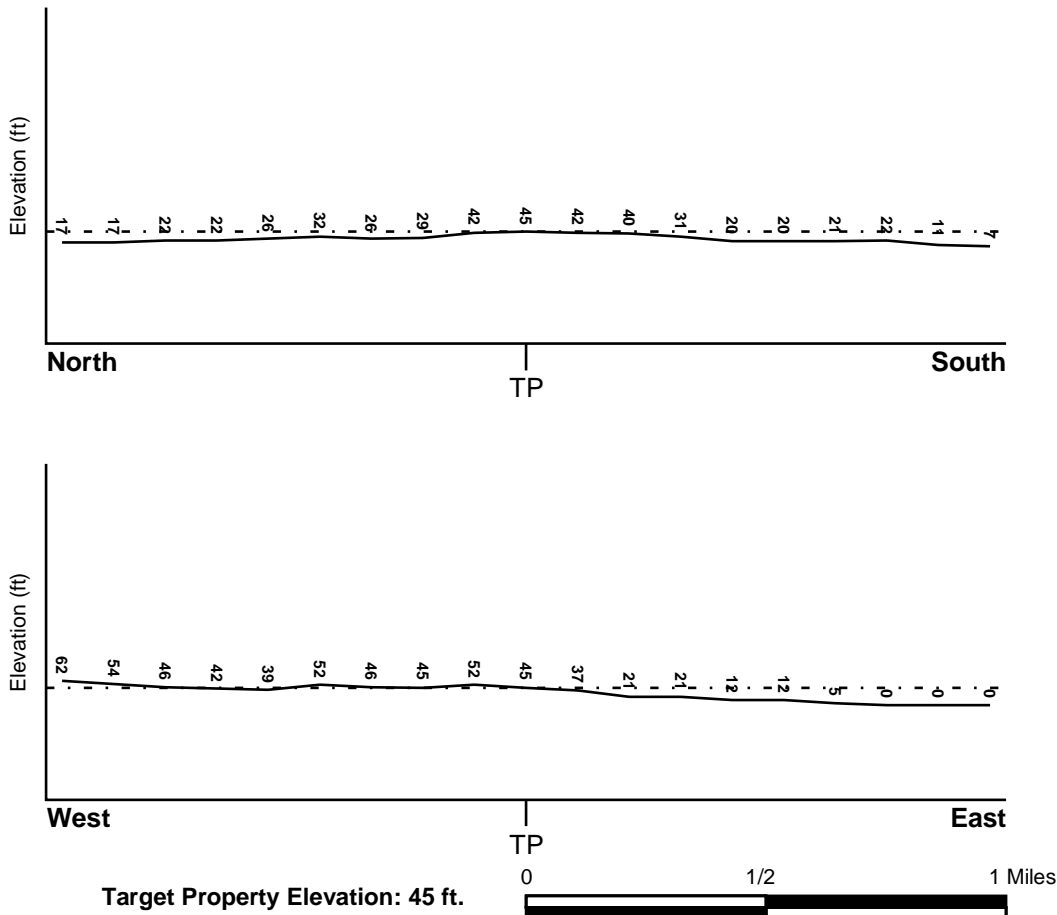
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Flood Plain Panel at Target Property</u>	<u>FEMA Source Type</u>
06095C0537E	FEMA FIRM Flood data
<u>Additional Panels in search area:</u>	<u>FEMA Source Type</u>
06095C0541E	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u>	<u>NWI Electronic Data Coverage</u>
RIO VISTA	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
6	1/2 - 1 Mile South	Not Reported
7	1/2 - 1 Mile SSW	NW,S
10	1/2 - 1 Mile SSW	E
B11	1/2 - 1 Mile South	NE
B12	1/2 - 1 Mile South	Not Reported
1G	1/2 - 1 Mile South	Not Reported
2G	1/2 - 1 Mile SSW	NW,S
3G	1/2 - 1 Mile SSW	E

* ©1996 Site-specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
4G	1/2 - 1 Mile South	NE
5G	1/2 - 1 Mile South	Not Reported

For additional site information, refer to Physical Setting Source Map Findings.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

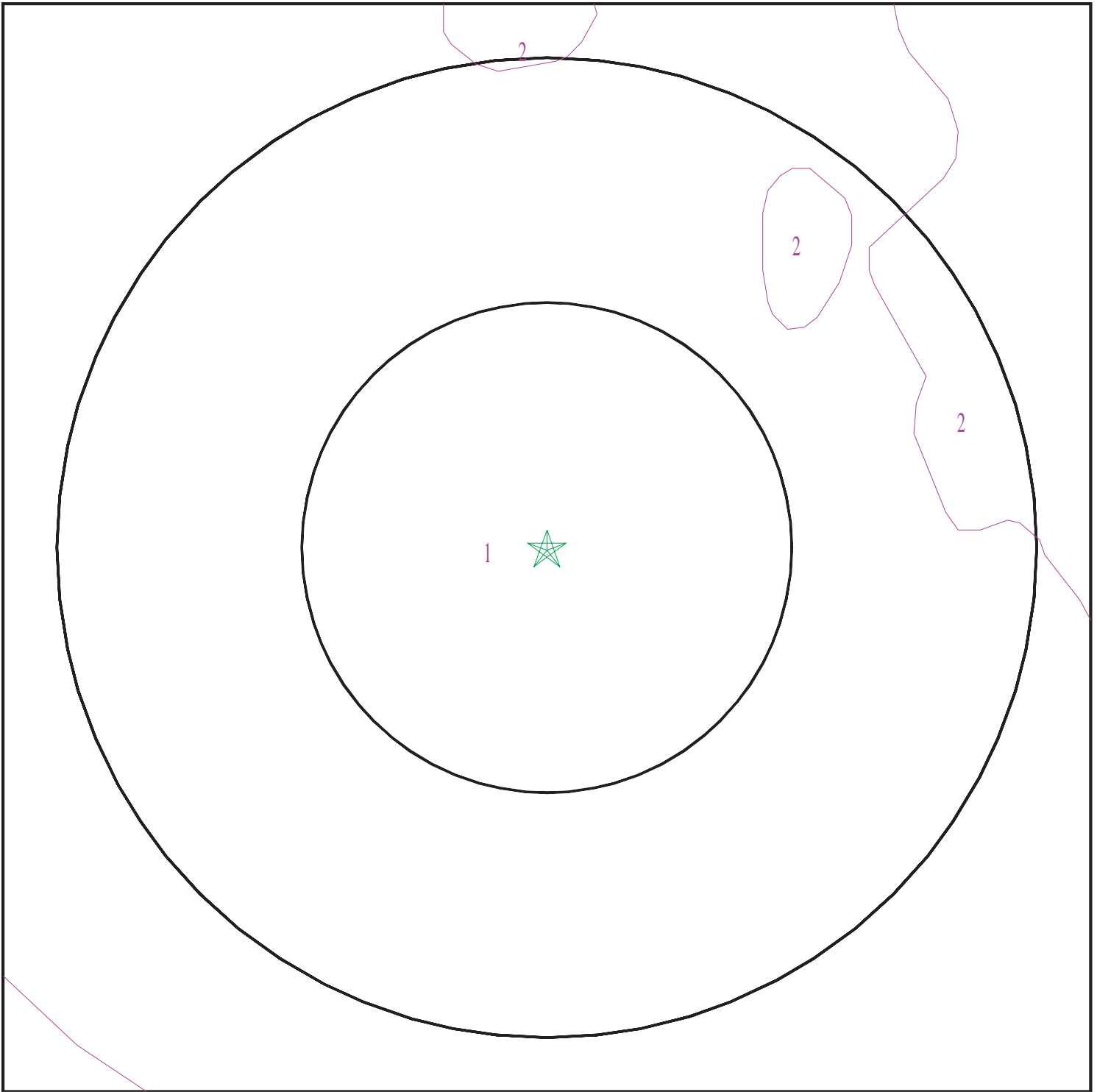
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q (<i>decoded above as Era, System & Series</i>)

GEOLOGIC AGE IDENTIFICATION

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 5964900.2s



- ★ Target Property
- ⚡ SSURGO Soil
- ⚡ Water



SITE NAME: Snowtil
ADDRESS: Industrial Court
Rio Vista CA 94571
LAT/LONG: 38.171771 / 121.688353

CLIENT: Terracon
CONTACT: Tammy Woods
INQUIRY #: 5964900.2s
DATE: February 07, 2020 4:38 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Tujunga

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	11 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1
2	11 inches	59 inches	sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.8 Min: 6.1

Soil Map ID: 2

Soil Component Name: Borrow pits

Soil Surface Texture: fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Unknown

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
2	USGS40000187180	1/4 - 1/2 Mile SSE
A5	USGS40000187183	1/2 - 1 Mile ESE

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	4366	0 - 1/8 Mile South
3	4373	1/4 - 1/2 Mile SSW
A4	4367	1/4 - 1/2 Mile ESE
8	4359	1/2 - 1 Mile NW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
9	4368	1/2 - 1 Mile ESE

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
1	CAOG13000201823	1/8 - 1/4 Mile ENE
2	CAOG13000201825	1/8 - 1/4 Mile SSE
3	CAOG13000201824	1/4 - 1/2 Mile SSW
4	CAOG13000201820	1/4 - 1/2 Mile West
5	CAOG13000201792	1/4 - 1/2 Mile SSE
6	CAOG13000201793	1/2 - 1 Mile South
7	CAOG13000201790	1/2 - 1 Mile SE
8	CAOG13000201691	1/2 - 1 Mile WSW
9	CAOG13000201822	1/2 - 1 Mile North
A10	CAOG13000201832	1/2 - 1 Mile South
A11	CAOG13000201837	1/2 - 1 Mile South
12	CAOG13000201818	1/2 - 1 Mile South
A13	CAOG13000201745	1/2 - 1 Mile South
14	CAOG13000201774	1/2 - 1 Mile ENE
15	CAOG13000201831	1/2 - 1 Mile SW
16	CAOG13000201830	1/2 - 1 Mile West
17	CAOG13000201675	1/2 - 1 Mile West
18	CAOG13000201802	1/2 - 1 Mile NW
B19	CAOG13000201690	1/2 - 1 Mile WSW
B20	CAOG13000201715	1/2 - 1 Mile WSW
21	CAOG13000201787	1/2 - 1 Mile SW
22	CAOG13000201833	1/2 - 1 Mile WNW

PHYSICAL SETTING SOURCE MAP - 5964900.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME: Snowtil
 ADDRESS: Industrial Court
 Rio Vista CA 94571
 LAT/LONG: 38.171771 / 121.688353

CLIENT: Terracon
 CONTACT: Tammy Woods
 INQUIRY #: 5964900.2s
 DATE: February 07, 2020 4:38 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database EDR ID Number

1
South
0 - 1/8 Mile
Lower

CA WELLS 4366

Seq:	4366	Prim sta c:	04N/03E-19R02 M
Frds no:	4800555001	County:	48
District:	04	User id:	ENG
System no:	4800555	Water type:	G
Source nam:	WELL 01	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	381016.8	Longitude:	1214074.7
Precision:	4	Status:	AR
Comment 1:	515 RIVER ROAD RIO VISTA LOCATED WITHIN 100 FT OF THE SACRAMENTO RIVER		
Comment 2:	Not Reported	Comment 3:	Not Reported
Comment 4:	Not Reported	Comment 5:	Not Reported
Comment 6:	Not Reported	Comment 7:	Not Reported
System no:	4800555	System nam:	Riverbank Trailer Park
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	100	Connection:	0
Area serve:	Not Reported		

2
SSE
1/4 - 1/2 Mile
Lower

FED USGS USGS40000187180

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	004N003E30C001M	Type:	Well
Description:	Not Reported	HUC:	18020109
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Central Valley aquifer system		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19550708	Well Depth:	450
Well Depth Units:	ft	Well Hole Depth:	492
Well Hole Depth Units:	ft		
Ground water levels,Number of Measurements:	1	Level reading date:	1980-05-14
Feet below surface:	24.8	Feet to sea level:	Not Reported
Note:	Not Reported		

3
SSW
1/4 - 1/2 Mile
Lower

CA WELLS 4373

Seq:	4373	Prim sta c:	04N/03E-30C01 M
Frds no:	4810004002	County:	48
District:	04	User id:	ENG
System no:	4810004	Water type:	G
Source nam:	WELL 08	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	381000.0	Longitude:	1214120.0
Precision:	3	Status:	AR

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Comment 1: Not Reported
 Comment 3: Not Reported
 Comment 5: Not Reported
 Comment 7: Not Reported

Comment 2: Not Reported
 Comment 4: Not Reported
 Comment 6: Not Reported

System no: 4810004
 Hqname: Not Reported
 City: RIO VISTA
 Zip: 94510
 Pop serv: 3300
 Area serve: RIO VISTA

System nam: City Of Rio Vista
 Address: P.O.BOX 745
 State: CA
 Zip ext: Not Reported
 Connection: 1406

Sample date: 06-SEP-16
 Chemical: ARSENIC
 Dir: 2.

Finding: 5.
 Report units: UG/L

**A4
 ESE
 1/4 - 1/2 Mile
 Lower**

CA WELLS 4367

Seq: 4367
 Frds no: 4800810002
 District: 04
 System no: 4800810
 Source nam: WELL 01 - INACTIVE
 Latitude: 381010.0
 Precision: 3
 Comment 1: 510 RIVER ROAD RIO VISTA
 Comment 3: Not Reported
 Comment 5: Not Reported
 Comment 7: Not Reported

Prim sta c: 04N/03E-19R03 M
 County: 48
 User id: ENG
 Water type: G
 Station ty: WELL/AMBNT/MUN/INTAKE
 Longitude: 1214045.0
 Status: IR
 Comment 2: Not Reported
 Comment 4: Not Reported
 Comment 6: Not Reported

System no: 4800810
 Hqname: Not Reported
 City: Not Reported
 Zip: Not Reported
 Pop serv: 0
 Area serve: Not Reported

System nam: Upham Rentals/Harris Rentals
 Address: Not Reported
 State: Not Reported
 Zip ext: Not Reported
 Connection: 0

**A5
 ESE
 1/2 - 1 Mile
 Lower**

FED USGS USGS40000187183

Organization ID: USGS-CA
 Organization Name: USGS California Water Science Center
 Monitor Location: 004N003E19R001M
 Description: Not Reported
 Drainage Area: Not Reported
 Contrib Drainage Area: Not Reported
 Aquifer: Central Valley aquifer system
 Formation Type: Not Reported
 Construction Date: 19690919
 Well Depth Units: ft
 Well Hole Depth Units: ft

Type: Well
 HUC: 18020109
 Drainage Area Units: Not Reported
 Contrib Drainage Area Unts: Not Reported
 Aquifer Type: Not Reported
 Well Depth: 231
 Well Hole Depth: 250

Ground water levels,Number of Measurements: 1
 Feet below surface: 18.00

Level reading date: 1969-09-19
 Feet to sea level: Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Note: Not Reported

6 South 1/2 - 1 Mile Lower	Site ID:	Not Reported	AQUIFLOW	53039
	Groundwater Flow:	Not Reported		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	10.5		
	Date:	04/12/1999		

7 SSW 1/2 - 1 Mile Lower	Site ID:	Not Reported	AQUIFLOW	53210
	Groundwater Flow:	NW,S		
	Shallow Water Depth:	Not Reported		
	Deep Water Depth:	Not Reported		
	Average Water Depth:	12		
	Date:	07/15/1999		

8 NW 1/2 - 1 Mile Lower			CA WELLS	4359
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Seq:	4359	Prim sta c:	04N/02E-24A02 M
Frds no:	4800638001	County:	48
District:	04	User id:	ENG
System no:	4800638	Water type:	G
Source nam:	WELL 02	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	381050.0	Longitude:	1214150.0
Precision:	3	Status:	AR
Comment 1:	401 AIRPORT ROAD RIO VISTA	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	4800638	System nam:	Rio Vista Properties
Hqname:	Not Reported	Address:	Not Reported
City:	Not Reported	State:	Not Reported
Zip:	Not Reported	Zip ext:	Not Reported
Pop serv:	34	Connection:	0
Area serve:	Not Reported		

9 ESE 1/2 - 1 Mile Lower			CA WELLS	4368
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Seq:	4368	Prim sta c:	04N/03E-20M01 M
Frds no:	4810004004	County:	48
District:	04	User id:	ENG
System no:	4810004	Water type:	G
Source nam:	WELL 10	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	381000.0	Longitude:	1214025.0
Precision:	3	Status:	AU
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	4810004	System nam:	City Of Rio Vista
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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Hqname:	Not Reported	Address:	P.O.BOX 745
City:	RIO VISTA	State:	CA
Zip:	94510	Zip ext:	Not Reported
Pop serv:	3300	Connection:	1406
Area serve:	RIO VISTA		
Sample date:	04-JAN-18	Finding:	400.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	04-JAN-18	Finding:	657.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	25-OCT-17	Finding:	25.6
Chemical:	MANGANESE	Report units:	UG/L
Dir:	20.		
Sample date:	25-OCT-17	Finding:	6.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		
Sample date:	04-OCT-17	Finding:	390.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	04-OCT-17	Finding:	656.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	12-JUL-17	Finding:	390.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	12-JUL-17	Finding:	644.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	03-APR-17	Finding:	24.1
Chemical:	MANGANESE	Report units:	UG/L
Dir:	20.		
Sample date:	03-APR-17	Finding:	400.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	03-APR-17	Finding:	629.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	09-JAN-17	Finding:	420.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	09-JAN-17	Finding:	651.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	05-DEC-16	Finding:	11.7
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	05-DEC-16	Finding:	440.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	900.
Chemical:	BORON	Report units:	UG/L
Dir:	100.		
Sample date:	05-DEC-16	Finding:	0.2
Chemical:	FLUORIDE (F) (NATURAL-SOURCE)	Report units:	MG/L
Dir:	0.1		
Sample date:	05-DEC-16	Finding:	48.6
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	05-DEC-16	Finding:	34.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	1.
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	131.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	2.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	4.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	18.2
Chemical:	HARDNESS (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	280.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	230.
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	05-DEC-16	Finding:	8.3
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	05-DEC-16	Finding:	651.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	05-DEC-16	Finding:	30.
Chemical:	MANGANESE	Report units:	UG/L
Dir:	20.		
Sample date:	22-JUL-16	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.		
Sample date:	22-JUL-16	Finding:	644.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	04-APR-16	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	04-APR-16	Finding:	689.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	07-JUL-14	Finding:	440.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	07-JUL-14	Finding:	655.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	02-DEC-13	Finding:	3.
Chemical:	MAGNESIUM	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	5.
Chemical:	CALCIUM	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	24.8
Chemical:	HARDNESS (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	270.
Chemical:	BICARBONATE ALKALINITY	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	220.
Chemical:	ALKALINITY (TOTAL) AS CaCO ₃	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	8.4
Chemical:	PH, LABORATORY	Report units:	Not Reported
Dir:	0.		
Sample date:	02-DEC-13	Finding:	700.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	02-DEC-13	Finding:	143.
Chemical:	SODIUM	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	2.
Chemical:	POTASSIUM	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	40.
Chemical:	CHLORIDE	Report units:	MG/L
Dir:	0.		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Sample date:	02-DEC-13	Finding:	30.4
Chemical:	BARIUM	Report units:	UG/L
Dir:	100.		
Sample date:	02-DEC-13	Finding:	1100.
Chemical:	BORON	Report units:	UG/L
Dir:	100.		
Sample date:	02-DEC-13	Finding:	50.
Chemical:	MANGANESE	Report units:	UG/L
Dir:	20.		
Sample date:	02-DEC-13	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	02-DEC-13	Finding:	11.8
Chemical:	AGGRSSIVE INDEX (CORROSIVITY)	Report units:	Not Reported
Dir:	0.		
Sample date:	02-DEC-13	Finding:	57.
Chemical:	SULFATE	Report units:	MG/L
Dir:	0.5		
Sample date:	07-OCT-13	Finding:	450.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	07-OCT-13	Finding:	713.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	01-JUL-13	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	01-JUL-13	Finding:	647.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	01-APR-13	Finding:	400.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	01-APR-13	Finding:	688.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	07-JAN-13	Finding:	410.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	07-JAN-13	Finding:	685.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	01-OCT-12	Finding:	680.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	01-OCT-12	Finding:	420.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Dir:	0.		
Sample date:	02-JUL-12	Finding:	667.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	02-JUL-12	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	02-APR-12	Finding:	430.
Chemical:	TOTAL DISSOLVED SOLIDS	Report units:	MG/L
Dir:	0.		
Sample date:	02-APR-12	Finding:	716.
Chemical:	SPECIFIC CONDUCTANCE	Report units:	US
Dir:	0.		
Sample date:	12-MAR-12	Finding:	8.
Chemical:	ARSENIC	Report units:	UG/L
Dir:	2.		

10 SSW 1/2 - 1 Mile Lower	Site ID: Not Reported		
	Groundwater Flow: E	AQUIFLOW	53211
	Shallow Water Depth: 17		
	Deep Water Depth: 19		
	Average Water Depth: Not Reported		
	Date: 06/21/1994		

B11 South 1/2 - 1 Mile Lower	Site ID: Not Reported		
	Groundwater Flow: NE	AQUIFLOW	53036
	Shallow Water Depth: 6.69		
	Deep Water Depth: 10.03		
	Average Water Depth: Not Reported		
	Date: 09/11/1995		

B12 South 1/2 - 1 Mile Lower	Site ID: Not Reported		
	Groundwater Flow: Not Reported	AQUIFLOW	53040
	Shallow Water Depth: Not Reported		
	Deep Water Depth: Not Reported		
	Average Water Depth: 4.0		
	Date: 01/1999		

1G South 1/2 - 1 Mile Lower	Site ID: Not Reported		
	Groundwater Flow: Not Reported	AQUIFLOW	53039
	Shallow Water Depth: Not Reported		
	Deep Water Depth: Not Reported		
	Average Water Depth: 10.5		
	Date: 04/12/1999		

2G SSW 1/2 - 1 Mile Lower	Site ID: Not Reported		
	Groundwater Flow: NW,S	AQUIFLOW	53210
	Shallow Water Depth: Not Reported		
	Deep Water Depth: Not Reported		
	Average Water Depth: 12		
	Date: 07/15/1999		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

3G	Site ID:	Not Reported		
SSW	Groundwater Flow:	E	AQUIFLOW	53211
1/2 - 1 Mile	Shallow Water Depth:	17		
Lower	Deep Water Depth:	19		
	Average Water Depth:	Not Reported		
	Date:	06/21/1994		

4G	Site ID:	Not Reported		
South	Groundwater Flow:	NE	AQUIFLOW	53036
1/2 - 1 Mile	Shallow Water Depth:	6.69		
Lower	Deep Water Depth:	10.03		
	Average Water Depth:	Not Reported		
	Date:	09/11/1995		

5G	Site ID:	Not Reported		
South	Groundwater Flow:	Not Reported	AQUIFLOW	53040
1/2 - 1 Mile	Shallow Water Depth:	Not Reported		
Lower	Deep Water Depth:	Not Reported		
	Average Water Depth:	4.0		
	Date:	01/1999		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

1

ENE

1/8 - 1/4 Mile

OIL_GAS

CAOG13000201823

API #:	0409500272	Well #:	98
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/04/1944		

2

SSE

1/8 - 1/4 Mile

OIL_GAS

CAOG13000201825

API #:	0409500274	Well #:	99
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/19/1950		

3

SSW

1/4 - 1/2 Mile

OIL_GAS

CAOG13000201824

API #:	0409500273	Well #:	152
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	10/09/1945		

4

West

1/4 - 1/2 Mile

OIL_GAS

CAOG13000201820

API #:	0409500269	Well #:	95
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Amerada Hess Corp., Unit Operator		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/20/1937		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

5

SSE

1/4 - 1/2 Mile

OIL_GAS

CAOG13000201792

API #:	0409500241	Well #:	53
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	03/17/1946		

6

South

1/2 - 1 Mile

OIL_GAS

CAOG13000201793

API #:	0409500242	Well #:	131
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/11/1949		

7

SE

1/2 - 1 Mile

OIL_GAS

CAOG13000201790

API #:	0409500239	Well #:	52
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/04/1940		

8

WSW

1/2 - 1 Mile

OIL_GAS

CAOG13000201691

API #:	0409520863	Well #:	259
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	10/19/1989		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

9

North
1/2 - 1 Mile

OIL_GAS CAOG13000201822

API #:	0409500271	Well #:	97
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Amerada Hess Corp., Unit Operator		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/09/1943		

A10

South
1/2 - 1 Mile

OIL_GAS CAOG13000201832

API #:	0409500281	Well #:	107
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	09/23/1959		

A11

South
1/2 - 1 Mile

OIL_GAS CAOG13000201837

API #:	0409520042	Well #:	220
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	12/20/1967		

12

South
1/2 - 1 Mile

OIL_GAS CAOG13000201818

API #:	0409500267	Well #:	89
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	07/17/1941		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

A13
South
1/2 - 1 Mile

OIL_GAS CAOG13000201745

API #:	0409520166	Well #:	17
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Rio Vista State	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	03/03/1972		

14
ENE
1/2 - 1 Mile

OIL_GAS CAOG13000201774

API #:	0409500223	Well #:	40
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Rosetta Resources Operating LP		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	04/17/1940		

15
SW
1/2 - 1 Mile

OIL_GAS CAOG13000201831

API #:	0409500280	Well #:	156
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/03/1945		

16
West
1/2 - 1 Mile

OIL_GAS CAOG13000201830

API #:	0409500279	Well #:	106
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Amerada Hess Corp., Unit Operator		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	hud
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	06/14/1937		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

17
West
1/2 - 1 Mile

OIL_GAS CAOG13000201675

API #:	0409521272	Well #:	6
Well Status:	Idle	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Trigueiro	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	Y
SPUD Date:	06/08/2007		

18
NW
1/2 - 1 Mile

OIL_GAS CAOG13000201802

API #:	0409500251	Well #:	61
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Amerada Hess Corp., Unit Operator		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/03/1944		

B19
WSW
1/2 - 1 Mile

OIL_GAS CAOG13000201690

API #:	0409520862	Well #:	4
Well Status:	Active	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	Trigueiro	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/04/1989		

B20
WSW
1/2 - 1 Mile

OIL_GAS CAOG13000201715

API #:	0409520437	Well #:	193
Well Status:	Plugged	Well Type:	GAS
Operator Name:	Rosetta Resources Operating LP		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	08/08/1980		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance

Database EDR ID Number

21
SW
1/2 - 1 Mile

OIL_GAS CAOG13000201787

API #:	0409500236	Well #:	49
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	11/14/1946		

22
WNW
1/2 - 1 Mile

OIL_GAS CAOG13000201833

API #:	0409500008	Well #:	74
Well Status:	Plugged	Well Type:	GAS
Operator Name:	California Resources Production Corporation		
Lease Name:	RVGU	Field Name:	Rio Vista Gas
Area Name:	Any Area	GIS Source:	GPS
Confidential Well:	N	Directionally Drilled:	N
SPUD Date:	10/03/1945		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
94571	4	0

Federal EPA Radon Zone for SOLANO County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level \geq 2 pCi/L and \leq 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 94571

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.200 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	-0.900 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map

Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA

Telephone: 877-336-2627

Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory

Source: Department of Fish and Wildlife

Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Public Health

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

California Earthquake Fault Lines

Source: California Division of Mines and Geology

The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon

Source: Department of Public Health

Telephone: 916-210-8558

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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**APPENDIX E
CREDENTIALS**

TAMARA K. WOODS

FIELD STAFF SCIENTIST

PROFESSIONAL EXPERIENCE

Ms. Woods is a Field Staff Scientist in Terracon's Lodi, California office. Ms. Woods is responsible for creating Phase I Environmental Site Assessment reports.

Ms. Woods has performed environmental site reconnaissance for five years and has assisted in report development for Phase I ESA's. Ms. Woods has experience conducting Surface Subsurface Contamination Reports as per San Joaquin County, California requirements. Ms. Woods has experience in environmental data review, file review, project coordination and proposal/contract writing.

PROJECT EXPERIENCE

Undeveloped/Vacant/Agricultural Land - California

Project Manager for Surface Subsurface Contamination Reports on multiple projects. Performed site reconnaissance for Phase I ESA's on vacant land, undeveloped land and vineyards ranging from 20 acres to 150 acres.

Office Warehouse/Retail/Commercial Building - California

Performed site reconnaissance for Phase I ESA's for several warehouse buildings and retail/commercial buildings.

Dairy Facilities- California

Performed site reconnaissance for Phase I ESA's for mid to large scale dairy operations.

Automotive Maintenance Facilities - California

Performed site reconnaissance for Phase I ESA's for various automotive maintenance and repair facilities.

Education

Bachelor of Science, Environmental Horticulture & Urban Forestry, University California Davis, 2011

Certifications

40-Hour HAZWOPER

Work History

Terracon Consultants, Inc., Field Staff Scientist, 2015-Present

San Joaquin County Agricultural Commissioner, Agricultural Pest Surveyor, 2012-2014

UC Davis Biology Lab, Intern 2011

Nunhems, Inc., Laboratory Assistant, 2009

Neil O. Anderson & Associates, Inc., Staff Scientist, 2007-2012; Project Coordinator 2002-2007

Todd G. McFarland, PG, CHG

DEPARTMENT MANAGER

PROFESSIONAL EXPERIENCE

Mr. McFarland has over 20 years of experience as a professional geologist and hydrogeologist, in over 200 site characterization and remediation projects throughout California. He is an environmental Department Manager for Terracon's Colton office. Mr. McFarland has been involved with geotechnical investigations, well design and construction, aquifer testing, Phase I and II ESAs, including agricultural, petroleum, and industrial properties; and remediation mitigation for commercial, industrial and LUST/LUFT projects. Mr. McFarland's expertise includes hydrogeology, contaminant transport in soil and groundwater, soil and groundwater remediation, and California UST Cleanup Fund regulations for commercial properties, government agencies and major oil companies.

His areas of expertise includes Phase I & II Environmental Assessments, Hazardous Waste Site Investigations, LUST/LUFT Site Investigation and Remediation (soil, vapor, and groundwater) Hydrogeology, Contaminant Fate & Transport, Well Design and Construction, Remedial Strategy and Design, California UST Cleanup Fund and Triad Approach Investigation Methods.

PRESENTATIONS

Blythe Commingled Plume Project, California Regional Water Quality Control Board, Colorado River Basin Region, La Quinta, CA, November 2005. Prepared and presented a 30-minute multimedia presentation to the Water Board summarizing the project accomplishments and status.

Blythe Commingled Plume Project, California Water Resources Control Board, Underground Storage Tank Cleanup Fund, Sacramento, CA, December 2005, and April 2008. Coordinated, prepared and presented project information and recommendations to the UST Cleanup Fund.

Chevron OneTeam Meeting, Brea, CA, May 2007. Presented multimedia presentation on the application of Compound Specific Isotope Analysis for 1,2-DCA, in support of natural attenuation.

Chevron OneTeam Meeting, Irvine, CA, May 2012. Presented multimedia safety presentation detailing groundwater pump-and-treatment systems.

Yucaipa Valley Gem & Mineral Society, Yucaipa, CA, March 2015. Presented multimedia presentation on California water and groundwater production.

PROJECT EXPERIENCE

Charis Corporation/US Army, Aquifer and Well Evaluation, Fort Irwin, California

Project Geologist for the identification, assessment and testing of domestic and agricultural wells associated with the expansion of Ft. Irwin military base. Responsible for field mapping, staff and logistics coordination, subcontractor management, well pumping, mine shaft mapping and collection of samples for heavy metal analytical testing. [2001-2002]

Bechtel, Mountain View Power Plant Expansion Project, Loma Linda, California

Project Geologist support for pump test and analytical testing of new production well within the Bunker Hill Basin. Sampling and testing of water for Title 22, perchlorate and TCE to determine well viability, and ability to discharge surplus water to Santa Ana River. [2003]

Herzog, Rail Line Rehabilitation Project, San Bernardino, California

Project Geologist for compliance monitoring, soil sampling and remediation management of soils during rail line rehabilitation. Project work conducted for BNSF under their oversight and safety management guidelines. Managed daily soil screening, mobile laboratory analysis oversight and directed soil excavation and segregation for offsite disposal of hydrocarbon and solvent impacted soils. [2002]

EDUCATION

Bachelor of Science, Hydrogeology, Northern Arizona University, 1998

AA, Art/Architecture, Pasadena City College, 1992

REGISTRATIONS

California Professional Geologist, PG #7685

California Certified Hydrogeologist, CHG #979

CERTIFICATIONS

GIS Certification, University of California, Riverside, 2017

40-Hour OSHA Hazardous Materials Training

8-Hour OSHA Supervisory and Confined Space Training

8-Hour LPS/OSHA Refresher (current)

CPR/First Aid Certified (current)

LPS 8-Hour Training Certification, 5/2006

16-Hour Chevron EMC CSOC Training, 11/2007

Defensive Driving Course, 6/2006

DOT-Basic HazMat Training, 5/2007

Title 22 California-Hazardous Waste Generator Training, 5/2007

Lean Six Sigma Training, 3/2011

Cost Engineering and Cost Loaded Scheduling and Training, 4/2011 & 3/2012

WORK HISTORY

Terracon Consultants, Inc., Department Manager, 2018-Present

AECOM, Sr. Project Manager/Sr. Hydrogeologist, 2013-2018

HFA, Sr. Geologist/Sr. Project Manager, 2009-2013, Assoc. Geologist/Sr. Geologist/Project Manager/Office Manager, 2004-2009

Geo-Cal, Inc., Project Geologist, 2003 – 2004

CHJ, Inc., Staff Geologist, 1998-2003



Amtrak, 8th Street Amtrak Yard ROW Investigation, Los Angeles, California

Project Geologist for Phase I & II assessments along ROWs within the active rail yard for proposed ROW exchange. Project work included drilling and soil sampling adjacent to active rail lines associated with train maintenance and wash rack. Reporting and recommendations for soil remediation options. [2002]

Chevron and ExxonMobil, Service Station and Terminal Facility Management, Southern and Northern California

Project/Senior Geologist and Project Manager for portfolio of underground storage tank facilities. Managed schedule, costs and project work for numerous retail service station and bulk tank facilities. Scoped and executed assessment and remedial efforts targeted to model and remove contaminants. Geological logging and drilling oversight for the installation of numerous shallow and deep monitoring wells within unconsolidated and over-consolidated soils. Develop and execute aquifer, soil vapor extraction, and air sparge testing to determine feasibility of remedial options. Prepare conceptual site models to evaluate project data and develop remedial action plans and human health risk assessments. Collaborate with engineers to design, build and execute remedial systems for treatment of petroleum impacted soil and groundwater. Responsible for direct interaction with client and regulators to develop and execute strategies. [2003 to present]

Chevron EMC, 1,2-DCA Plume Investigation, Santa Barbara, California

Project Geologist and Project Manager. Conducted assessment and modeling of groundwater that included the evaluation of carbon isotopes to determine contaminant origin and rate of destruction. [2006 - 2008]

Chevron EMC, MTBE Groundwater Plume Investigation and Remediation, San Juan Capistrano California

Senior Geologist and Project Manager for two underground storage tank facilities that allegedly affected the City's water production supply. Scoped and executed assessment and remedial efforts targeted to model and remove benzene and MTBE. Installed and operated in-situ soil and groundwater remedial systems. Geological logging and drilling oversight for the installation of numerous shallow and deep monitoring and remediation wells. Testing and evaluation of City's production wells. Attend and participate in public hearings, plan and participate in planning and design review meetings. Conduct client meetings and provide project details to client's legal team. [2010 to 2013]

Confidential Client, Crafton-Redlands Perchlorate Plume Investigation, Mentone, California

Project Geologist for underground storage tank facility. Geological logging and drilling oversight for the installation of deep monitoring wells within the Crafton-Redlands Plume using rotary casing hammer and sonic drilling rigs. Collection of soil and groundwater samples to evaluation aquifer for petroleum hydrocarbons, including MTBE and perchlorate. Conduct soil vapor extraction pilot testing for in-situ soil remediation of hydrocarbon impacts. [2003 to 2004]

City of Rialto, Landfill Investigation and Post-Closure Monitoring, Rialto, California. Project Geologist for landfill closure and post-closure investigations and monitoring. On going monitoring of water quality beneath and surrounding the boundary limits of landfill. Statistical analysis and reporting of water quality data to determine trends and stability post-closure. [2003 to 2004]

City of Los Angeles, Community Park Development, Lead Removal, California

Project Geologist for development of a community park. Planned, coordinated, and conducted assessment and remediation of aerial deposited lead within a residential community. Conducted lead dust monitoring, excavation activities and verification sampling and reporting. [2003]

Confidential Client, Federal Social Security Building Development, San Bernardino, California

Project Geologist for compliance monitoring and soil sampling during over-excavation of unpermitted landfill from the 1920's. Soil sampling/analysis, soil management and excavation of lead-impacted soils. [2002]

City of Blythe, Citywide Commingled Plume Investigation, Blythe, California

Project Manager for city wide commingled plume assessment and remedial cleanup of 7 commingled plumes (over 30 individual sites) related to petroleum releases to groundwater. Conducted large-scale site assessment, well installation and remedial actions including soil vapor extraction, dual-phase extraction, free-product extraction and soil excavation. Managed complex financial contract and UST

Cleanup Fund reimbursement. Responsible for direct interaction with client (City), UST Cleanup Fund and California's Water Board to develop and execute strategies. [2005 to 2009]

AFCEC, Industrial Waste Line Removal and Vapor Intrusion Risk Assessment, Former Norton Air Force Base, San Bernardino, California

Senior hydrogeologist for evaluation of soil and soil vapor sampling. Conducted closure report review, human health risk assessment modeling and evaluation, and closure recommendations. Evaluation and reporting resulted in obtaining closure from DTSC. [2014]

Kristin Stout

SENIOR SCIENTIST/DUE DILIGENCE LEAD, ENVIRONMENTAL

PROFESSIONAL EXPERIENCE

Kristin Stout has over 22 years of experience in environmental consulting. She currently serves as a Due Diligence lead in the Sacramento office, responsible for the execution of Phase I Environmental Site Assessments (ESAs), regulatory agency coordination, and the review of environmental documents. Ms. Stout is a primary resource and project manager of all aspects of Phase I ESAs and Initial Site Assessments (ISAs), including site inspection, photographic documentation, background, and historical research to determine the potential for impact from hazardous materials on soil and groundwater at the property sites. In addition, she serves as liaison and environmental coordinator for a number of public agencies, as well as many Caltrans projects and numerous school districts. These relationships also require Ms. Stout to work closely with the regulatory agencies involved in the projects. Ms. Stout is also very experienced in Phase II ESAs, asbestos and lead-based paint surveys, Aerially Deposited Lead (ADL) Surveys, groundwater monitoring reports, and underground storage tank (UST) removals and closures.

PROJECT EXPERIENCE

Lower Sunrise, Phase I ESA and Limited Phase II ESA, Rancho Cordova, CA

A Phase I ESA was prepared for the proposed purchase of the property. Based on the findings of a Phase I ESA, a Limited Phase II ESA was proposed. The Phase II ESA found lead in concentrations in excess of regulatory screening numbers. ENERCON revisited the subject property with a Thermo Niton™ XL2 GOLOO X-ray Fluorescence (XRF) Analyzer and was able to determine the vertical extent of lead impacts on the subject property.

Florin Road ADL Survey

Project Manager for an AOL Survey associated with the Florin Road Improvement Project. Obtained an encroachment permit for sampling in the shoulder of the road and used a traffic control services. The 17 soil borings were completed in one day and the results indicated that the project area was not impacted by lead in excess of regulatory guidelines and can be reused onsite.

Confidential Client, Nationwide

Managed a nationwide client expanding its operations throughout the United States. Services included Phase I ESAs, Limited Site Investigations (LSIs), ALTA Surveys, Zoning Reports, Wetlands Desktop Reviews and Delineations, Hazardous Materials Surveys, and Geotechnical Investigations.

Phase I ESAs, California, Residential Developers

As a Project Manager and Field Inspector, Ms. Stout has conducted Phase I ESA's on over 1,000 properties. She performs the necessary tasks to determine past and/or present land use and to locate possible sources of hazardous materials/wastes. Tasks include reviews of aerial photographs, site reconnaissance, personnel interviews, and client file review. Typical sources identified include oil/gas wells, sumps, above- and underground storage tanks, reservoirs, laboratories, transformers, pipelines, facilities with chemical storage, refineries, hazardous material distribution facilities, industrial processes, natural gas plants, pesticides, and dispersion ponds. Agency contact and file review was performed to identify any known problems on the properties and any problems from nearby sites that may have impacted the properties. Information was obtained from the US EPA, California EPA, California Integrated Waste Management Board, California Regional Water Quality Control Boards, various counties Departments of Health, and other appropriate local agencies (fire departments, building departments, etc.).

EDUCATION

Bachelor of Arts, Environmental Studies, California Lutheran University, 1995

CERTIFICATIONS

Environmental Professional, ASTM E1527-13

CFR 1910.120 OSHA 40-Hour Training

CFR 1910.120 OSHA 8-Hour Supervisor Training

PSMJ Associates Resources, Project Manager Bootcamp

CONTINUING EDUCATION

Annual Continuing Education Policy by Terracon Consultants, Inc. includes 6 hours of continuing education yearly related to ASTM E1527-13.

WORK HISTORY

Terracon Consultants, Inc., Senior Scientist/Due Diligence Lead-Environmental, August 2017-Present

Enercon Services, Inc., Due Diligence Department Lead, 2015-August 2017

Leighton Consulting, Inc., Senior Project Manager/Project Manager, 2001-2015

Gradient Engineers, Inc. (a Leighton company), Senior Staff Environmental Scientist, 2000-2001

Phase One, Inc., Report Writer/Environmental Assessor, 1995-2000

Kristin Stout (Cont.)

Project Experience (Cont.)

1-15 Corridor Improvement Project, Murrieta to Riverside/San Bernardino County Line, Phase I ESA, Riverside County, CA
Project Manager for the ISA and ADL Study for the Initial Study/Environmental Assessment (IS/EA). The Hazardous Waste ISA reviewed potential hazardous material/waste impacts associated with the proposed project. Information developed during the ISA will be used to evaluate human health risk during construction and possible legal or logistical implications associated with contaminated sites and potential right-of-way acquisitions along the alignment. The ADL study required 1,703 borings and collection of 6,443 samples within medians, shoulders and ramps. Leighton analyzed the data and conducted statistical analysis to determine if the soil would be suitable for reuse under the DTSC's ADL Variance. Ms. Stout co-authored a proprietary database for sample documentation integrating field input with GPS coordinates to locate, field verify, and collect data. The GPS data was downloaded daily and integrated using GIS. The I-15 CIP project was re-scoped in 2011/2012 to a "right-sized" project which extends from the SR-74 in south Corona to the SR-60 in Ontario. Ms. Stout revised the ISA and ADL Surveys to address the new alignment and conducted asbestos and lead based paint studies on the bridges which will be impacted.

Riverside County Economic Development Agency, Phase I and II ESA, Romoland, CA

Project Manager overseeing a Phase I ESA of the property which identified a potential underground storage tank (UST) and former autobody operating illegally at the property. A Phase II ESA identify a pit in the former shop area. Groundwater monitoring wells were installed at the property which identified methyl tertiary butyl ether (MTBE) in the groundwater. Due to the issues with redevelopment at the facility, further investigation was put on hold.

Riverside County Transportation Commission (RCTC) On-Call Right-of-Way Phase I and Phase II Environmental Assessment Services, Riverside County, CA

Task Manager for on-call environmental services agreement with RCTC. The initial three-year contract was extended an additional two years. In 2014, another three-year contract was executed. Ms. Stout is responsible for conducting Phase I and Phase II ESAs on properties which require right-of-way acquisition to widen, construct, or modify highways, roadways, or freeways. Many of these projects involve sensitive property owners. Ms. Stout is aware of the parties involved and can obtain all the information necessary for the Phase I ESA and successful acquisition. If recognized environmental conditions are identified in the Phase I ESA, Leighton conducts a Phase II ESA so that RCTC can negotiate purchase price based on property conditions, cleanup costs, and fair market value.

Phase I & IIs Environmental Site Assessments and Asbestos Surveys for Redevelopment Properties, Industry Urban Development Agency, City of Industry, CA. Project Manager for Phase I ESAs, Limited Phase II ESAs, Asbestos Surveys, and Lead Based Paint Surveys for multiple redevelopment properties within the City of Industry. These properties have included single family residences, commercial, and industrial facilities.

Phase I Environmental Site Assessment, La Habra, CA

Project Manager responsible for completion of Phase I and Phase II ESA for real estate transaction. The 11-acre site was graded for residential development, with industrial and residential historical site use. A soil-gas survey was performed to characterize the extent of used to evaluate volatile organic compounds (VOCs) soil vapors on the subject site. Following the soil vapor survey a Human Health Risk Assessment was completed. The concentration of VOCs in the soil vapor were determined not to be a risk to future residents. The project has since been constructed.

Rancho Mirage High School, Rancho Mirage, CA

Project Scientist for completion of Phase I ESA for new school. The 80-acre vacant, undeveloped property was located within the Agua Caliente Indian Reservation. Ms. Stout was able to provide a determination that no recognized environmental conditions merited further investigation for the purposes of the transaction for which this assessment was prepared. The Phase I ESA was submitted to DTSC, with concurrence of these findings.

G & M Oil Company

Managed numerous gas station properties owned by G & M Oil Company. These stations are active facilities that range from limited contamination to facilities warranting remedial solutions. Many of the stations have ongoing quarterly groundwater monitoring activities. Conducted numerous Geoprobe® soil investigations, hollow-stem auger drilling, injection of oxygen release compounds into the groundwater, and installation of a monitoring wells. Some stations are anticipated to require remedial action within the next year.

APPENDIX F
DESCRIPTION OF TERMS AND ACRONYMS

Description of Selected General Terms and Acronyms

Term/Acronym	Description
ACM	<p>Asbestos Containing Material. Asbestos is a naturally occurring mineral, three varieties of which (chrysotile, amosite, crocidolite) have been commonly used as fireproofing or binding agents in construction materials. Exposure to asbestos, as well as ACM, has been documented to cause lung diseases including asbestosis (scarring of the lung), lung cancer and mesothelioma (a cancer of the lung lining).</p> <p>Regulatory agencies have generally defined ACM as a material containing greater than one (1) percent asbestos, however some states (e.g. California) define ACM as materials having 0.1% asbestos. In order to define a homogenous material as non-ACM, a minimum number of samples must be collected from the material dependent upon its type and quantity. Homogenous materials defined as non-ACM must either have 1) no asbestos identified in all of its samples or 2) an identified asbestos concentration below the appropriate regulatory threshold. Asbestos concentrations are generally determined using polarized light microscopy or transmission electron microscopy. Point counting is an analytical method to statistically quantify the percentage of asbestos in a sample. The asbestos component of ACM may either be friable or non-friable. Friable materials, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure and have a higher potential for a fiber release than non-friable ACM. Non-friable ACM are materials that are firmly bound in a matrix by plastic, cement, etc. and, if handled carefully, will not become friable.</p> <p>Federal and state regulations require that either all suspect building materials be presumed ACM or that an asbestos survey be performed prior to renovation, dismantling, demolition, or other activities that may disturb potential ACM. Notifications are required prior to demolition and/or renovation activities that may impact the condition of ACM in a building. ACM removal may be required if the ACM is likely to be disturbed or damaged during the demolition or renovation. Abatement of friable or potentially friable ACM must be performed by a licensed abatement contractor in accordance with state rules and NESHAP. Additionally, OSHA regulations for work classification, worker training and worker protection will apply.</p>
AHERA	Asbestos Hazard Emergency Response Act
AST	Aboveground Storage Tanks. ASTs are generally described as storage tanks less than 10% of which are below ground (i.e., buried). Tanks located in a basement, but not buried, are also considered ASTs. Whether, and the extent to which, an AST is regulated, is determined on a case-by-case basis and depends upon tank size, its contents and the jurisdiction of its location.
BGS	Below Ground Surface
Brownfields	State and/or tribal listing of Brownfield properties addressed by Cooperative Agreement Recipients or Targeted Brownfields Assessments.
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes. BTEX are VOC components found in gasoline and commonly used as analytical indicators of a petroleum hydrocarbon release.
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (a.k.a. Superfund). CERCLA is the federal act that regulates abandoned or uncontrolled hazardous waste sites. Under this Act, joint and several liability may be imposed on potentially responsible parties for cleanup-related costs.
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System. An EPA compilation of sites having suspected or actual releases of hazardous substances to the environment. CERCLIS also contains information on site inspections, preliminary assessments and remediation of hazardous waste sites. These sites are typically reported to EPA by states and municipalities or by third parties pursuant to CERCLA Section 103.
CESQG	Conditionally Exempt Small Quantity Generators
CFR	Code of Federal Regulations

Description of Selected General Terms and Acronyms

Term/Acronym	Description
CREC	Controlled Recognized Environmental Condition is defined in ASTM E1527-13 as “a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority) , with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report.”
DOT	U.S. Department of Transportation
EPA	U.S. Environmental Protection Agency
ERNS	Emergency Response Notification System. An EPA-maintained federal database which stores information on notifications of oil discharges and hazardous substance releases in quantities greater than the applicable reportable quantity under CERCLA. ERNS is a cooperative data-sharing effort between EPA, DOT, and the National Response Center.
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
Hazardous Substance	As defined under CERCLA, this is (A) any substance designated pursuant to section 1321(b)(2)(A) of Title 33, (B) any element, compound, mixture, solution, or substance designated pursuant to section 9602 of this title; (C) any hazardous waste having characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (with some exclusions); (D) any toxic pollutant listed under section 1317(a) of Title 33; (E) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (F) any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action under section 2606 of Title 15. This term does not include petroleum, including crude oil or any fraction thereof which is not otherwise listed as a hazardous substance under subparagraphs (A) through (F) above, and the term include natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
Hazardous Waste	This is defined as having characteristics identified or listed under section 3001 of the Solid Waste Disposal Act (with some exceptions). RCRA, as amended by the Solid Waste Disposal Act of 1980, defines this term as a “solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”
HREC	Historical Recognized Environmental Condition is defined in ASTM E1527-13 as “a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time of the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.”
IC/EC	A listing of sites with institutional and/or engineering controls in place. IC include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls. EC include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.
ILP	Innocent Landowner/Operator Program
LQG	Large Quantity Generators
LUST	Leaking Underground Storage Tank. This is a federal term set forth under RCRA for leaking USTs. Some states also utilize this term.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
MCL	Maximum Contaminant Level. This Safe Drinking Water concept (and also used by many states as a ground water cleanup criteria) refers to the limit on drinking water contamination that determines whether a supplier can deliver water from a specific source without treatment.
MSDS	Material Safety Data Sheets. Written/printed forms prepared by chemical manufacturers, importers and employers which identify the physical and chemical traits of hazardous chemicals under OSHA's Hazard Communication Standard.
NESHAP	National Emissions Standard for Hazardous Air Pollutants (Federal Clean Air Act). This part of the Clean Air Act regulates emissions of hazardous air pollutants.
NFRAP	Facilities where there is "No Further Remedial Action Planned," as more particularly described under the Records Review section of this report.
NOV	Notice of Violation. A notice of violation or similar citation issued to an entity, company or individual by a state or federal regulatory body indicating a violation of applicable rule or regulations has been identified.
NPDES	National Pollutant Discharge Elimination System (Clean Water Act). The federal permit system for discharges of polluted water.
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program.
OSHA	Occupational Safety and Health Administration or Occupational Safety and Health Act
PACM	Presumed Asbestos-Containing Material. A material that is suspected of containing or presumed to contain asbestos but which has not been analyzed to confirm the presence or absence of asbestos.
PCB	Polychlorinated Biphenyl. A halogenated organic compound commonly in the form of a viscous liquid or resin, a flowing yellow oil, or a waxy solid. This compound was historically used as dielectric fluid in electrical equipment (such as electrical transformers and capacitors, electrical ballasts, hydraulic and heat transfer fluids), and for numerous heat and fire sensitive applications. PCB was preferred due to its durability, stability (even at high temperatures), good chemical resistance, low volatility, flammability, and conductivity. PCBs, however, do not break down in the environment and are classified by the EPA as a suspected carcinogen. 1978 regulations, under the Toxic Substances Control Act, prohibit manufacturing of PCB-containing equipment; however, some of this equipment may still be in use today.
pCi/L	picoCuries per Liter of Air. Unit of measurement for Radon and similar radioactive materials.
PLM	Polarized Light Microscopy (see ACM section of the report, if included in the scope of services)
PST	Petroleum Storage Tank. An AST or UST that contains a petroleum product.
Radon	A radioactive gas resulting from radioactive decay of naturally-occurring radioactive materials in rocks and soils containing uranium, granite, shale, phosphate, and pitchblende. Radon concentrations are measured in picoCuries per Liter of Air. Exposure to elevated levels of radon creates a risk of lung cancer; this risk generally increases as the level of radon and the duration of exposure increases. Outdoors, radon is diluted to such low concentrations that it usually does not present a health concern. However, radon can accumulate in building basements or similar enclosed spaces to levels that can pose a risk to human health. Indoor radon concentrations depend primarily upon the building's construction, design and the concentration of radon in the underlying soil and ground water. The EPA recommended annual average indoor "action level" concentration for residential structures is 4.0 pCi/l.
RCRA	Resource Conservation and Recovery Act. Federal act regulating solid and hazardous wastes from point of generation to time of disposal ("cradle to grave"). 42 U.S.C. 6901 et seq.
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as either large (LQG), small (SQG), or conditionally exempt (CESQG). LQG produce at least 1000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQG produce 100-1000 kg/month of non-acutely hazardous waste. CESQG are those that generate less than 100 kg/month of non-acutely hazardous waste.
RCRA CORRACTS/TS Ds	The USEPA maintains a database of RCRA facilities associated with treatment, storage, and disposal (TSD) of hazardous materials which are undergoing "corrective action". A "corrective action" order is issued when there is a release of hazardous waste or constituents into the environment from a RCRA facility.
RCRA Non-CORRACTS/TS Ds	The RCRA Non-CORRACTS/TSD Database is a compilation by the USEPA of facilities which report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.

Description of Selected General Terms and Acronyms

Term/Acronym	Description
RCRA Violators List	RAATS. RCRA Administrative Actions Taken. RAATS information is now contained in the RCRIS database and includes records of administrative enforcement actions against facilities for noncompliance.
RCRIS	Resource Conservation and Recovery Information System, as defined in the Records Review section of this report.
REC	Recognized Environmental Conditions are defined by ASTM E1527-13 as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: 1) due to any release to the environment; 2) under conditions indicative of a release to the environment. <i>De minimis</i> conditions are not recognized environmental conditions.”
SCL	State “CERCLIS” List (see SPL /State Priority List, below).
SPCC	Spill Prevention, Control and Countermeasures. SPCC plans are required under federal law (Clean Water Act and Oil Pollution Act) for any facility storing petroleum in tanks and/or containers of 55-gallons or more that when taken in aggregate exceed 1,320 gallons. SPCC plans are also required for facilities with underground petroleum storage tanks with capacities of over 42,000 gallons. Many states have similar spill prevention programs, which may have additional requirements.
SPL	State Priority List. State list of confirmed sites having contamination in which the state is actively involved in clean up activities or is actively pursuing potentially responsible parties for clean up. Sometimes referred to as a State “CERCLIS” List.
SQG	Small Quantity Generator
SWF/LF	State and/or Tribal database of Solid Waste/Landfill facilities. The database information may include the facility name, class, operation type, area, estimated operational life, and owner.
TPH	Total Petroleum Hydrocarbons
TRI	Toxic Release Inventory. Routine EPA report on releases of toxic chemicals to the environment based upon information submitted by entities subject to reporting under the Emergency Planning and Community Right to Know Act.
TSCA	Toxic Substances Control Act. A federal law regulating manufacture, import, processing and distribution of chemical substances not specifically regulated by other federal laws (such as asbestos, PCBs, lead-based paint and radon). 15 U.S.C 2601 et seq.
USACE	United States Army Corps of Engineers
USC	United States Code
USGS	United States Geological Survey
USNRCS	United States Department of Agriculture-Natural Resource Conservation Service
UST	Underground Storage Tank. Most federal and state regulations, as well as ASTM E1527-13, define this as any tank, incl., underground piping connected to the tank, that is or has been used to contain hazardous substances or petroleum products and the volume of which is 10% or more beneath the surface of the ground (i.e., buried).
VCP	State and/or Tribal facilities included as Voluntary Cleanup Program sites.
VOC	Volatile Organic Compound

Description of Selected General Terms and Acronyms

Term/Acronym	Description
Wetlands	<p>Areas that are typically saturated with surface or ground water that creates an environment supportive of wetland vegetation (i.e., swamps, marshes, bogs). The <u>Corps of Engineers Wetlands Delineation Manual</u> (Technical Report Y-87-1) defines wetlands as areas inundated or saturated by surface or ground water 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. For an area to be considered a jurisdictional wetland, it must meet the following criteria: more than 50 percent of the dominant plant species must be categorized as Obligate, Facultative Wetland, or Facultative on lists of plant species that occur in wetlands; the soil must be hydric; and, wetland hydrology must be present.</p> <p>The federal Clean Water Act which regulates “waters of the US,” also regulates wetlands, a program jointly administered by the USACE and the EPA. Waters of the U.S. are defined as: (1) waters used in interstate or foreign commerce, including all waters subject to the ebb and flow of tides; (2) all interstate waters including interstate wetlands; (3) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, etc., which the use, degradation, or destruction could affect interstate/ foreign commerce; (4) all impoundments of waters otherwise defined as waters of the U. S., (5) tributaries of waters identified in 1 through 4 above; (6) the territorial seas; and (7) wetlands adjacent to waters identified in 1 through 6 above. Only the USACE has the authority to make a final wetlands jurisdictional determination.</p>