Environmental Assessment 23-01

Initial Study and Mitigated Negative Declaration for Tentative Subdivision Map (TSM) 22-09, Johnson Ranch Estates, and a Development Agreement

Prepared for:

City of Yuba City
1201 Civic Center Blvd.
Yuba City, CA 95993

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and

City of Yuba City
Development Services Department
Planning Division

April 2023

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1. Introduction

1.1. Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND) has been prepared to identify any potential environmental impacts in the City of Yuba City, California (City) from the proposed Tentative Subdivision Map (TSM) 22-09, Johnson Ranch Estates and a Development Agreement ("Project"): Johnson Ranch Estates is a 82-lot single-family residential subdivision on approximately 15.84 acres. The gross density of the Project is approximately 5.2 residences per acre. The property is located within the eastern edge of the Butte Vista Neighborhood Plan, on the west side of West Onstott Frontage Road approximately 1,100 feet south of Pease Road. There is a single-family residence located at the northeast corner of the property that will be removed as part of the Project. The remaining property is vacant of any buildings and has been fallow. The Assessor's Parcel Numbers are 59-030-008 and 009.

The Development Agreement will extend the life of the tentative subdivision map for 10 years, with the potential for further extensions upon agreement of both parties in exchange for the owner to provide additional funding for neighborhood parks.

This subdivision and development agreement is considered a project under the California Environmental Quality Act (CEQA), as the City has discretionary authority over the Project. The Project requires discretionary review by the City of Yuba City Planning Commission.

This IS/MND has been prepared in conformance with CEQA Guidelines Section 15070. The purpose of the IS/MND is to determine the potential significant impacts associated with the tentative subdivision map and provide an environmental assessment for consideration by the Planning Commission. In addition, this document is intended to provide the basis for input from public agencies, organizations, and interested members of the public.

1.2. Regulatory Information

An Initial Study (IS) is an environmental assessment document prepared by a lead agency to determine if a project may have a significant effect on the environment. In accordance with the California Code of Regulations Title 14 (Chapter 3, §15000 et seq.), commonly referred to as the CEQA Guidelines - Section 15064(a)(1) states an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the proposed project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant. A negative declaration may be prepared instead; if the lead agency finds that there is no substantial evidence, in light of the whole record that the project may have a significant effect on the environment. A negative declaration is a written statement describing the reasons why a proposed project, not exempt from CEQA pursuant to §15300 et seq. of Article 19 of the Guidelines, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA

Guidelines Section 15070, a negative declaration shall be prepared for a project subject to CEQA when either:

A. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

B. The IS identified potentially significant effects, but:

    a. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed negative declaration and initial study is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

    b. There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment. If revisions are adopted by the Lead Agency into the proposed project in accordance with the CEQA Guidelines Section 15070(b), a Mitigated Negative Declaration (MND) is prepared.

1.3. Document Format

This IS/MND contains four chapters, and one technical appendix. Chapter 1, Introduction, provides an overview of the proposed Project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of proposed Project objectives and components. Chapter 3, Impact Analysis, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible measures. If the proposed Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the proposed Project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

1.4. Purpose of Document

The proposed subdivision will undergo a public review process by the Planning Commission that, if approved as proposed, will ultimately consist of 82 single-family residences. The Planning Commission's review is needed to assure that the Project will be compatible with existing or expected neighboring uses and that adequate public facilities are available to serve the project.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Pub. Res. Code, Section 21000 et seq.) and the State CEQA Guidelines (Title 14 CCR §15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects.

The initial study is a public document used by the decision-making lead agency to determine whether a project may have a significant effect on the environment. If the lead agency finds substantial evidence that any aspect of the Project, either individually or cumulatively, may have a significant effect on the environment, regardless of whether the overall effect of the project is adverse or beneficial, the lead agency is required to use a previously prepared EIR and supplement that EIR, or prepare a subsequent EIR

to analyze the issues at hand. If the agency finds no substantial evidence that the Project or any of its aspects may cause a significant effect on the environment, a negative declaration shall be prepared. If in the course of the analysis, it is recognized that the Project may have a significant impact on the environment, but that with specific recommended mitigation measures incorporated into the Project, these impacts shall be reduced to less than significant, a mitigated negative declaration shall be prepared.

In reviewing all of the available information for the above referenced Project, the City of Yuba City Planning Division has analyzed the potential environmental impacts created by this Project and a mitigated negative declaration has been prepared.

1.5. Intended Uses of this Document

In accordance with CEQA, a good-faith effort has been made during preparation of this IS/MND to contact affected public agencies, organizations, and persons who may have an interest in the proposed Project. In reviewing the Draft IS/MND, affected and interested parties should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the effects of the proposed Project would be avoided or mitigated.

The Draft IS/ND and associated appendices will be available for review on the City of Yuba City website at www.yubacity.net/environmental. The Draft IS/MND and associated appendixes also will be available for review during regular business hours at the City of Yuba City Development Services Department (1201 Civic Center Boulevard, Yuba City, California 95993). The 20-day review period will commence on May 4, 2023 and end on May 24, 2023 at the conclusion of the Planning Commission hearing.

Written comments on the Draft IS/MND should be sent to the following address:

City of Yuba City
Development Services Department
1201 Civic Center Boulevard
Yuba City, CA 95993
e-mail: developmentservices@yubacity.net
Phone: 530.822.4700

2. Project Description

2.1. Project Title

Tentative Subdivision Map (TSM) 22-09: Johnson Ranch Estates Subdivision and a Development Agreement.

2.2. Lead Agency Name and Address

City of Yuba City
Development Services Department, Planning Division
1201 Civic Center Blvd.
Yuba City, CA 95993

2.3. Contact Person and Phone Number

Doug Libby, AICP
Deputy Director of Development Services
(530) 822-3231
developmentservices@yubacity.net

2.4. Project Location

The property is located on the west side of West Onstott Frontage Road approximately 1,100 feet south of Pease Road. The Assessor's Parcel Numbers are 59-030-008 and 009.

2.5. Project Applicant

Interwest Homes Corporation
950 Tharp Road, Suite 1402
Yuba City, CA 95993

2.6. Property Owner

Janice E. Johnson
5011 Illinois Ave.
Fair Oaks, CA95628

2.7. General Plan Designation

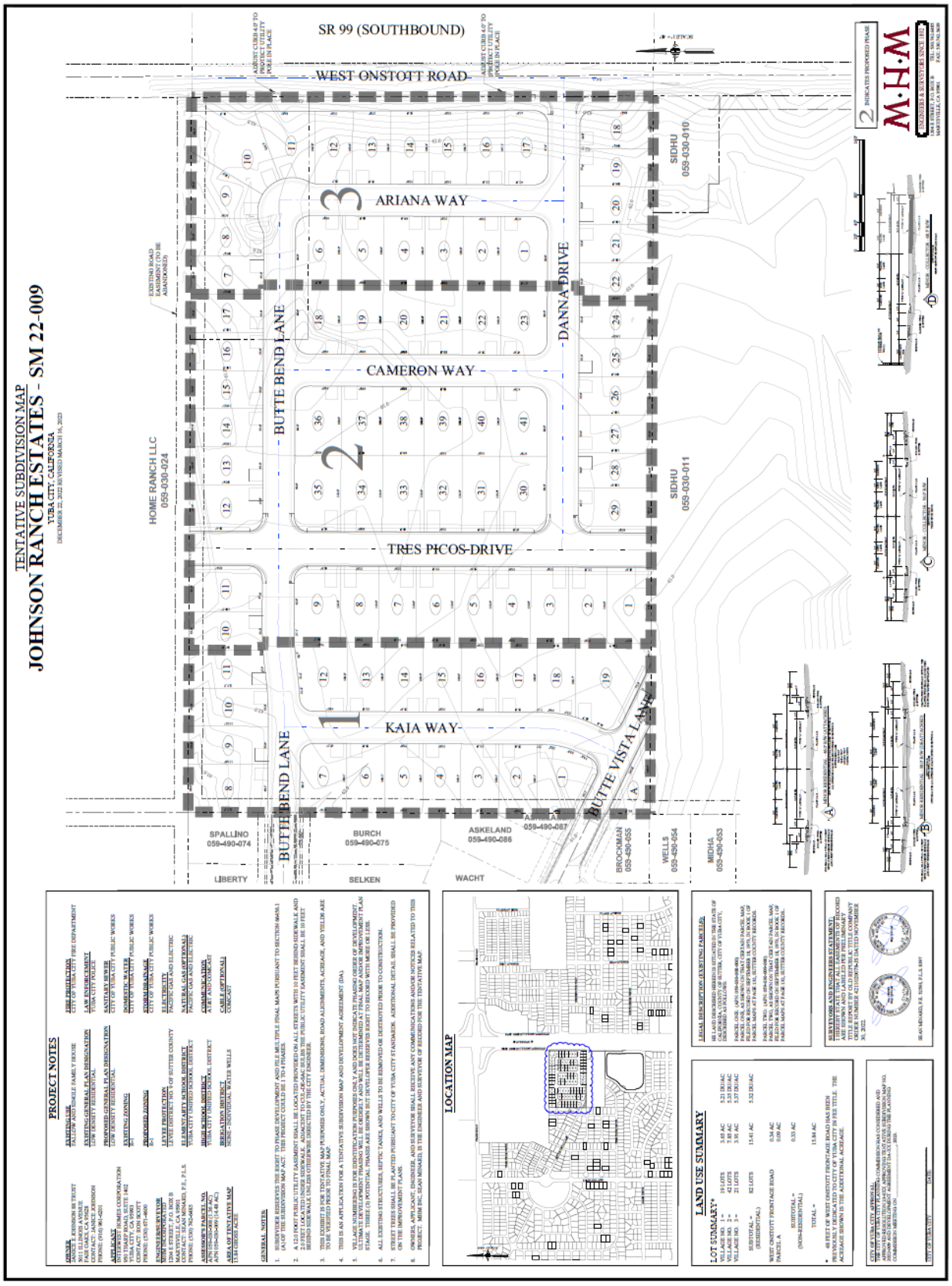
The site is designated Low Density Residential (LDR). The LDR designation allows a density range between 2 and 8 dwellings per acre. As proposed, the subdivision will have a density of approximately 5.2 residences per acre.

2.8. Zoning

The site is within the One-Family Residential (R-1) Zone District. The zoning is consistent with the LDR General Plan designation.

Figure 1: Location Map

Figure 2: Tentative Subdivision Map 22-09



2.9. Project Description

Tentative Subdivision Map (TSM) 22-09, Johnson Ranch Estates and a Development Agreement ("Project"): Johnson Ranch Estates is a proposed 82-lot single-family residential subdivision on approximately 15.84 acres. The gross density of the Project is approximately 5.2 residences per acre. The property is located within the eastern edge of the Butte Vista Neighborhood Plan, on the west side of West Onstott Frontage Road approximately 1,100 feet south of Pease Road. The proposed subdivision is located in north Yuba City in a primarily single-family residential area. Primary access to the property today is from West Onstott Frontage Road. There are also three residential streets connecting to this property from the subdivision west of this property. The Project will connect with all of them. There is a single-family residence located at the northeast corner of the property that will be removed as part of the Project. The remaining property is vacant of any buildings and fallow. The Assessor's Parcel Numbers are 59-030-008 and 009.

The Development Agreement will extend the life of the tentative subdivision map for 10 years, with the potential for further extensions upon agreement of both parties in exchange for the owner to provide additional funding for neighborhood parks.

2.10. Surrounding Land Uses and Setting

Setting: The proposed subdivision is located on a nearly vacant property (one existing single-family residence that is proposed to be removed) in northwest Yuba City in a primarily single-family residential area. Access to the property today is from West Onstott Frontage Road. There are also three residential streets that connect to this property from the subdivision west of this property, connecting this subdivision with the existing neighborhood.

Table 1: Bordering Uses	
North:	A prune orchard and Pease Road on the north side of the orchard.
South:	Vacant land that is designated for single-family residential development.
East:	West Onstott Frontage Road and State Route (SR) 99.
West:	Single-family residences.

2.11. Other Public Agencies Whose Approval May be Required

- Feather River Air Quality Management District, Dust Control Plan, Indirect Source Review.
- Central Valley Regional Water Quality Control Board.

2.12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

All geographically relevant Native American tribes were timely notified of the project, and consultation was not requested.

2.13. Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

	Aesthetics		Agriculture & Forestry Resources		Air Quality
X	Biological Resources	X	Cultural Resources		Energy
X	Geology/Soils	X	Greenhouse Gas Emissions		Hazard & Hazardous Materials
	Hydrology/Water Quality		Land Use Planning		Mineral Resources
	Noise		Population/Housing		Public Services
	Recreation	X	Transportation	X	Tribal Cultural Resources
	Utilities/Service Systems		Wildfire		Mandatory Findings of Significance

Determination: On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that, although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on the attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that, although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Doug Libby
Signature

April 28, 2023
Date

Doug Libby, AICP, Deputy Director of Development Services

2.14. Evaluation of Environmental Impacts:

A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

"Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described below, may be cross referenced). A Mitigated Negative Declaration also requires preparation and adoption of a Mitigation Monitoring and Reporting Program (MMRP).

Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. In this case, a brief discussion should identify the following:

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

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

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

Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts. Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

3. Environmental Checklist and Impact Evaluation

The following section presents the initial study checklist recommended by the California Environmental Quality Act (CEQA; Appendix G) to determine potential impacts of a project. Explanations of all answers are provided following each question, as necessary.

3.1. Aesthetics

Table 3-1: Aesthetics				
Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c) 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	
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?			X	

3.1.1. Environmental Setting/Affected Environment

Background views are generally considered to be long-range views in excess of 3 to 5 miles from a vantage point. Background views surrounding the Project site are limited due to the flat nature of the site and the surrounding urban landscape. Overall, the majority of Sutter County is relatively flat, with the Sutter Buttes being the exception. The Sutter Buttes located several miles northwest of the Project site and are visible from this location. The Sutter Buttes comprise the long-range views to the northwest and are visible from the much of the City, except in areas where trees or intervening structures block views of the mountain range.

The City's General Plan, more specifically the Community Design Element "establishes policies to ensure the creation of public and private improvements that will maintain and enhance the image, livability, and aesthetics of Yuba City in the years to come."

The following principles and policies are applicable:

- Maintain the identity of Yuba City as a small-town community, commercial hub, and residential community, surrounded by agricultural land and convey, through land uses and design amenities, Yuba City's character and place in the Sacramento Valley.

- Recognizing the livability and beauty of peer communities with highly designed visual landscapes, commit to a focus on the visual landscape of Yuba City.
- Maintain, develop, and enhance connections between existing and planned neighborhoods.
- Create and build upon a structured open space and parks network, centered on two large urban parks and the Feather River Corridor.
- Strive for lush, landscaped public areas marked by extensive tree plantings.
- Design commercial and industrial centers to be visually appealing, to serve both pedestrians and automobiles, and to integrate into the adjacent urban fabric.

In addition to the City's General Plan, the City provides Design Guidelines. The goal of the City's design guidelines is to ensure the highest quality of building design: designs that are aesthetically pleasing; designs that are compatible with the surroundings in terms of scale, mass, detailing, and building patterns; designs that accommodate the pedestrian, automobile, bicycle, and transit circulation; and designs that consider public safety, public interaction, and historic resources. The city's adopted Design Guidelines apply to single-family residential subdivision design, they do not apply to individual single-family residences.

3.1.2. Federal Regulatory Setting

Federal regulations relating to aesthetics include: Organic Administration Act (1897), Multiple Use – Sustained Yield Act (1960), Wilderness Act (1964), Federal Lands Policy and Management Act (1976), Wild and Scenic Rivers Act. The proposed Project is not subject to these regulations since there are no federally designated lands or rivers in the vicinity.

3.1.3. State Regulatory Setting

The California State Scenic Highway Program was created by the California Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code.

A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. When a city or county nominates an eligible scenic highway for official designation, it must identify and define the scenic corridor of the highway. A scenic corridor is the land generally adjacent to and visible from the highway. A scenic corridor is identified using a motorist's line of vision. A reasonable boundary is selected when the view extends to the distant horizon. The corridor protection program does not preclude development but seeks to encourage quality development that does not degrade the scenic value of the corridor. Jurisdictional boundaries of the nominating agency are also considered. The agency must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the scenic corridor protection program. County roads can also become part of the Scenic Highway System. To receive official designation, the county must follow the same process required for official designation of state scenic highways. There are no designated state scenic highways in the view shed of the Project site.

California Building Code Title 24 Outdoor Lighting Standards: The requirements vary according to which "Lighting Zone" the equipment is in. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the project is located in. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50 percent of the existing luminaires, for each outdoor lighting application that is regulated by the Standards, must meet the lighting power allowances for newly installed equipment.

An important part of the Standards is to base the lighting power that is allowed on how bright the surrounding conditions are. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; when the surrounding conditions get brighter, more light is needed to see. The least power is allowed in Lighting Zone 1 and increasingly more power is allowed in Lighting Zones 2, 3, and 4. By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government. The proposed Project is located in an urban area; thereby, it is in Lighting Zone 3.

3.1.4. Impact Assessment/Environmental Consequences:

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

There are no officially designated scenic vistas in Yuba City; as such the Project would therefore have no adverse effect on an official scenic vista. The east side of the subdivision will, however, be visible to passers-by from State Route 99, potentially blocking a portion of or all of their view of the Sutter Buttes. This view is not on a designated scenic route. Further, the Project is within the urban area, where this growth was also provided for in the General Plan that considered the scenic resources in its EIR, and its impact was not considered significant. To soften the view of the new subdivision from SR 99 it will have along that frontage a decorative masonry wall with pilasters as well as a 10-foot-wide landscaped strip, with trees planted 30 feet on-center. Therefore, the scenic impact from the highway will be less than significant.

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

The site is unremarkable in that it is flat with no topographic features, rock outcroppings, large heritage type trees. Therefore, the impacts will be less than significant.

c) In non-urbanized areas, substantially degrade the existing visual character 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 is within the Yuba City urbanized area. The City does not have design standards for single-family residences, but the standards do apply to the subdivision. Regarding consistency with the zoning and other design standards the aesthetics associated with the design of the subdivision will meet all of the subdivision standards contained in the Design Guidelines, including street landscaping standards and perimeter wall aesthetic standards. The impacts will 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 City requires new streets to have streetlights. But being within the urban area, the Project connects with other similarly lit streets and there is also lighting from nearby SR 99. As such street lighting is not typically considered a significant impact in an urban area unless there are nearby special circumstances, which there is not. Lighting in new homes typically does not extend much beyond the property lines. Therefore, since there are no unique circumstances the impacts from new street and home lighting will be less than significant.

3.2. Agricultural and Forestry Resources

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 prepared (1997) by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Table 3-2: Agricultural and Forestry Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?			X	
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?			X	

3.2.1. Environmental Setting/Affected Environment

Sutter County is located within the northern portion of California's Central Valley in the area known as the Sacramento Valley. It contains some of the richest soils in the State. These soils, combined with abundant surface and subsurface water supplies and a long, warm growing season, make Sutter County's agricultural resources very productive. Sutter County is one of California's leading agricultural counties,

with 83 percent of the County's total land acreage currently being used for agricultural purposes. However, while Sutter County provides rich agricultural opportunities, the subject site is within an urban area and has been designated for urban uses for many years.

3.2.2. Federal Regulatory Setting

Farmland Protection Policy Act: The Natural Resources Conservation Service (NRCS), a federal agency within the U.S. Department of Agriculture (USDA), is the agency primarily responsible for implementation of the Farmland Protection Policy Act (FPPA). The FPPA was enacted after the 1981 Congressional report, Compact Cities: Energy-Saving Strategies for the Eighties indicated that a great deal of urban sprawl was the result of programs funded by the federal government. The purpose of the FPPA is to minimize federal programs' contribution to the conversion of farmland to non-agricultural uses by ensuring that federal programs are administered in a manner that is compatible with state, local, and private programs designed to protect farmland. Federal agencies are required to develop and review their policies and procures to implement the FPPA every two years (USDA-NRCS, 2011).

2014 Farm Bill: The Agricultural Act of 2014 (the Act), also known as the 2014 Farm Bill, was signed by President Obama on Feb. 7, 2014. The Act repeals certain programs, continues some programs with modifications, and authorizes several new programs administered by the Farm Service Agency (FSA). Most of these programs are authorized and funded through 2018.

The Farm Bill builds on historic economic gains in rural America, while achieving meaningful reform and billions of dollars in savings for the taxpayer. It allows USDA to continue record accomplishments on behalf of the American people, while providing new opportunity and creating jobs across rural America. Additionally, it enables the USDA to further expand markets for agricultural products at home and abroad, strengthen conservation efforts, create new opportunities for local and regional food systems and grow the bio-based economy. It provides a dependable safety net for America's farmers, ranchers and growers and maintains important agricultural research, and ensure access to safe and nutritious food for all Americans.

Forestry Resources: Federal regulations regarding forestry resources are not relevant to the proposed Project because no forestry resources exist on the project site or in the vicinity.

3.2.3. State Regulatory Setting

California Environmental Quality Act (CEQA) Definition of Agricultural Lands: Public Resources Code Section 21060.1 defines "agricultural land" for the purposes of assessing environmental impacts using the Farmland Mapping & Monitoring Program (FMMP). The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California.

California Department of Conservation, Division of Land Resource Protection: The California Department of Conservation (DOC) applies the NRCS soil classifications to identify agricultural lands, and these agricultural designations are used in planning for the present and future of California's agricultural land resources. Pursuant to the DOC's FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM) used in planning for the present and future of California's agricultural land resources. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP provides analysis of agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The list below provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland is referred to as Farmland.

- *Prime Farmland.* Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- *Farmland of Statewide Importance.* Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- *Unique Farmland.* Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- *Farmland of Local Importance.* Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.
- *Grazing Land.* Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- *Urban and Built-up Land.* Land 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. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- *Other Land.* Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act): The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4, and therefore is applicable only to specific land parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under Williamson Act contracts. However, an agricultural preserve must consist of no less than 100 acres. In order to meet this requirement two or more parcels may be combined if they are contiguous, or if they are in common ownership.

The Williamson Act program is administered by the Department of Conservation (DOC), in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a 10-year period, or a 20-year period for property restricted by a Farmland Security Zone Contract, wherein no conversion out of agricultural use is permitted. Each year

the contract automatically renews unless a notice of non-renewal or cancellation is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. An application for immediate cancellation can also be requested by the landowner, provided that the proposed immediate cancellation application is consistent with the cancellation criteria stated in the California Land Conservation Act and those adopted by the affected county or city. Non-renewal or immediate cancellation does not change the zoning of the property. Participation in the Williamson Act program is dependent on county adoption and implementation of the program and is voluntary for landowners.

Farmland Security Zone Act: The Farmland Security Zone Act is similar to the Williamson Act and was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as "Super Williamson Act Contracts." Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35% reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property promises not to develop the property into nonagricultural uses.

Forestry Resources: State regulations regarding forestry resources are not relevant to the proposed Project because no forestry resources exist on the project site or in the vicinity.

3.2.4. Impact Assessment/Environmental Consequences:

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 site consists of approximately 15.84 acres of farmland quality soils, but that has not been farmed in many years. The 2018 Department of Conservation Important Farmland Map for Sutter County identifies the project site as "Grazing Land." As such, the Project site is not considered to have Prime Farmland, Farmland of Statewide Importance or Unique Farmland.

This property, as well as neighboring properties has also for many years been designated in the Yuba City General Plan for urban uses, for which overriding considerations for agricultural land loses within the City's sphere of influence were made in the General Plan EIR. This is part of the larger scope agreed to by the City and Sutter County to allow urban development within the City's sphere of influence, but that the great majority of the County's agricultural lands would be protected. As this site has been designated for urban uses for many years within the General Plan's area of anticipated loss of agricultural land, the impacts due to agriculture land loss will be less than significant.

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

The property, as well as the neighboring properties, are currently zoned for non-agricultural uses and they are not under Williamson Act contracts. Therefore, this Project will not conflict with any properties with agricultural zoning. See discussion above under item 3.2.4.a.

c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4256), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The proposed Project is located in the Sacramento Valley in a relatively flat area that likely was previously utilized for agriculture but designated years ago for urban use. There are no forests or timberland located on the Project site or within the vicinity of the Project. There will be no impact on existing zoning of forestland and the proposed Project will not cause the rezoning of any forestlands.

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

There is no forested land on the Project site or within the vicinity of the Project; therefore, there will be no impact on forest land.

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 within an area already served by City services and developed with residential uses except the property to the north remains in agricultural use. But considering the discussion above in Part a) and since that property has been designated for urban uses for many years and full services are already available to it, this project is not considered to hasten the conversion of that property to non-agricultural uses. There are also no forestlands on the project site or in the vicinity. No properties within the area are within the Williamson Act. Therefore, the impacts on agricultural lands and timberlands from this proposal will be less than significant.

3.3. Air Quality

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

Table 3-3: Air Quality				
Would the project?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

3.3.1. Environmental Setting/Affected Environment

Yuba City is located within the Sacramento Valley Air Basin (SVAB), which consists of the northern half of the Central Valley and approximates the drainage basin for the Sacramento River and its tributaries. The SVAB is bounded on the west by the Coast Range, on the north by the Cascade Range, on the east by the Sierra Nevada, and on the south by the San Joaquin Valley Air Basin. The intervening terrain is flat, and approximately 70 feet above sea level. The SVAB consists of the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba and portions of Placer and Solano Counties.

Hot dry summers and mild rainy winters characterize the Mediterranean climate of the Sacramento Valley. The climate of the SVAB is dominated by the strength and position of the semi-permanent high-pressure cell over the Pacific Ocean north of Hawaii. In summer, when the high-pressure cell is strongest and farthest north, temperatures are high and humidity is low, although the incursion of the sea breeze into the Central Valley helps moderate the summer heat. In winter, when the high-pressure cell is weakest and farthest south, conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. Throughout the year, daily temperatures may range from summer highs often exceeding 100 degrees Fahrenheit and winter lows occasionally below freezing. Average annual rainfall is about 20 inches with snowfall being very rare. The prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north.

In addition to prevailing wind patterns that control the rate of dispersion of local pollutant emissions, the region experiences two types of inversions that affect the vertical depth of the atmosphere through which pollutants can be mixed. In the warmer months in the SVAB (May through October), sinking air forms a "lid" over the region. These subsidence inversions contribute to summer photochemical smog problems by confining pollution to a shallow layer near the ground. These warmer months are characterized by stagnant morning air or light winds with the delta sea breeze arriving in the afternoon out of the

southwest. Usually, the evening breeze transports the airborne pollutants to the north and out of the SVAB. During about half of the day from July to September, however, a phenomenon called the "Schultz Eddy" prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out of the valley, the Schultz Eddy causes the wind pattern to circle back south. This phenomenon exacerbates the pollution levels in the area and increases the likelihood of violating federal or State standards. The Schultz Eddy normally dissipates around noon when the Delta sea breeze begins. In the second type of inversion, the mountains surrounding the SVAB create a barrier to airflow, which can trap air pollutants in the valley. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells lie over the valley. The air near the ground cools by radiative processes, while the air aloft remains warm. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduces the influx of outside air and allows air pollutants to become concentrated in a stable volume of air. These inversions typically occur during winter nights and can cause localized air pollution "hot spots" near emission sources because of poor dispersion. The surface concentrations of pollutants are highest when these conditions are combined with smoke from agricultural burning or when temperature inversions trap cool air and pollutants near the ground. Although these subsidence and radiative inversions are present throughout much of the year, they are much less dominant during spring and fall, and the air quality during these seasons is generally good."

Local Climate: The climate of Sutter County is subject to hot dry summers and mild rainy winters, which characterize the Mediterranean climate of the SVAB. Summer temperatures average approximately 90 degrees Fahrenheit during the day and 50 degrees Fahrenheit at night. Winter daytime temperatures average in the low 50s and nighttime temperatures are mainly in the upper 30s. During summer, prevailing winds are from the south. This is primarily because of the north-south orientation of the valley and the location of the Carquinez Straits, a sea-level gap in the coast range that is southwest of Sutter County.

Criteria Air Pollutants: Criteria air pollutants are a group of pollutants for which federal or State regulatory agencies have adopted ambient air quality standards. Criteria air pollutants are classified in each air basin, county, or in some cases, within a specific urbanized area. The classification is determined by comparing actual monitoring data with State and federal standards. If a pollutant concentration is lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "non-attainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated "unclassified."

Ambient Air Quality Standards: Both the federal and State government have established ambient air quality standards for outdoor concentrations of various pollutants in order to protect public health. The federal and State ambient air quality standards have been set at levels whose concentrations could be generally harmful to human health and welfare and to protect the most sensitive persons from experiencing health impacts with a margin of safety. Applicable ambient air quality standards are identified later in this section. The air pollutants for which federal and State standards have been promulgated and which are most relevant to air quality planning and regulation in the air basins include ozone, carbon monoxide, nitrogen oxides, suspended particulate matter, sulfur dioxide, and lead. In addition, toxic air contaminants are of concern in Sutter County. Each of these pollutants is briefly described below.

Ozone (O3): is a gas that is formed when reactive organic gases (ROGs) and nitrogen oxides (NOX), both byproducts of internal combustion engine exhaust and other processes undergo slow photochemical reactions in the presence of sunlight. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.

Carbon Monoxide (CO): is a colorless, odorless gas produced by the incomplete combustion of fuels. CO concentrations tend to be the highest during the winter morning, with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone, motor vehicles operating at slow speeds are the primary source of CO in the SVAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.

Nitrogen Oxides (NOX): is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO2) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOX are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels.

Nitrogen oxides can also be formed naturally.

Respirable Particulate Matter (PM10) and Fine Particulate Matter (PM2.5): consist of extremely small, suspended particles or droplets 10 microns and 2.5 microns or smaller in diameter. Some sources of suspended particulate matter, like pollen and windstorms, occur naturally. However, in populated areas, most fine suspended particulate matter is caused by road dust, diesel soot, and combustion products, abrasion of tires and brakes, and construction activities.

Sulfur Dioxide (SO2): is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of the burning of high sulfur-content fuel oils and coal, and from chemical processes occurring at chemical plants and refineries.

Lead: occurs in the atmosphere as particulate matter. The combustion of leaded gasoline is the primary source of airborne lead. Since the use of leaded gasoline is no longer permitted for on-road motor vehicles, lead is not a pollutant of concern in the SVAB.

Toxic Air Contaminants (TACs): are known to be highly hazardous to health, even in small quantities. TACs are airborne substances capable of causing short-term (acute) and/or long-term (chronic or carcinogenic) adverse human health effects (i.e., injury or illness). TACs can be emitted from a variety of common sources, including gasoline stations, automobiles, dry cleaners, industrial operations, and painting operations.

TAC impacts are assessed using a maximum individual cancer risk (MICR) that estimates the probability of a potential maximally exposed individual (MEI) contracting cancer as a result of sustained exposure to toxic air contaminants over a constant period of 24 hours per day for 70 years for residential receptor locations. The CARB and local air districts have determined that any stationary source posing an incremental cancer risk to the general population (above background risk levels) equal to or greater than 10 people out of 1 million to be excessive. For stationary sources, if the incremental risk of exposure to project-related TAC emissions meets or exceeds the threshold of 10 excess cancer cases per 1 million people, the CARB and local air district require the installation of best available control technology (BACT) or maximum available control technology (MACT) to reduce the risk threshold. To assess risk from ambient air concentrations, the CARB has conducted studies to determine the total cancer inhalation risk to individuals due to outdoor toxic pollutant levels. The CARB has conducted studies to determine the total cancer inhalation risk to individuals due to outdoor toxic pollutant levels. According to the map prepared by the CARB showing the estimated inhalation cancer risk for TACs in the State of California, Sutter County has an existing estimated risk that is between 50 and 500 cancer cases per 1 million people. A significant portion of Sutter County is within the 100 to 250 cancer cases per 1 million people range. There is a higher risk around Yuba City where the cancer risk is as high as 500 cases per 1 million people.

There are only very small portions of the County where the cancer risk is between 50 and 100 cases. This represents the lifetime risk that between 50 and 500 people in 1 million may contract cancer from inhalation of toxic compounds at current ambient concentrations under an MEI scenario.

3.3.2. Federal Regulatory Setting

Clean Air Act: The federal Clean Air Act of 1970 (as amended in 1990) required the U.S. Environmental Protection Agency (EPA) to develop standards for pollutants considered harmful to public health or the environment. Two types of National Ambient Air Quality Standards (NAAQS) were established. Primary standards protect public health, while secondary standards protect public welfare, by including protection against decreased visibility, and damage to animals, crops, landscaping and vegetation, or buildings. NAAQS have been established for six "criteria" pollutants: carbon monoxide (CO), nitrogen dioxide (NO2), sulfur dioxide (SO2), ozone (O3), particulate matter (PM10 and PM2.5), and lead (Pb).

3.3.3. State Regulatory Setting

California Air Resources Board: The California Air Resources Board (CARB) is the state agency responsible for implementing the federal and state Clean Air Acts. CARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen sulfide (H2S), and vinyl chloride. The proposed Project is located within the Sacramento Valley Air Basin, which includes Butte, Colusa, Glenn, Tehama, Shasta, Yolo, Sacramento, Yuba Sutter and portions of Placer, El Dorado and Solano counties. Air basins are classified as attainment, nonattainment, or unclassified. The FRAQMD is comprised Sutter and Yuba Counties. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.

California Clean Air Act: The CCAA requires that all air districts in the state endeavor to achieve and maintain CAAQS for Ozone, CO, SO2, and NO2 by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each non-attainment pollutant or its precursors, or (2) to provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

CARB Portable Equipment Registration Program: This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program: The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off-road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a

control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act: Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which will be phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions level.

3.3.4. Regional Regulatory Setting

Feather River Air Quality Management District (FRAQMD): The FRAQMD is a bi-county district formed in 1991 to administer local, state, and federal air quality management programs for Yuba and Sutter Counties within the Sacramento Valley Air Basin. The goal of the FRAQMD is to improve air quality in the region through monitoring, evaluation, education and implementing control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations and by supporting and implementing measures to reduce emissions from motor vehicles.

The FRAQMD adopted its Indirect Source Review guidelines document for assessment and mitigation of air quality impacts under CEQA in 1998. The guide contains criteria and thresholds for determining whether a project may have a significant adverse impact on air quality, and methods available to mitigate impacts on air quality. FRAQMD updated its Indirect Source Review Guidelines to reflect the most recent methods recommended to evaluate air quality impacts and mitigation measures for land use development projects in June 2010. This analysis uses guidance and thresholds of significance from the 2010 FRAQMD Indirect Source Review Guidelines to evaluate the proposed project's air quality impacts.

According to FRAQMD's 2010 Indirect Source Review Guidelines, a project would be considered to have a significant impact on air quality if it would:

- Generate daily construction or operational emissions that would exceed 25 pounds per day for reactive organic gases (ROG), 25 pounds per day for oxides of nitrogen (NOX), or 80 pounds per day for PM10; or generate annual construction or operational emissions of ROG or NOX that exceed 4.5 tons per year.

Northern Sacramento Valley Planning Area 2015 Air Quality Attainment Plan: As specified in the California Clean Air Act of 1988 (CCAA), Chapters 1568-1588, it is the responsibility of each air district in California to attain and maintain the state's ambient air quality standards. The CCAA requires that an Attainment Plan be developed by all nonattainment districts for O3, CO, SOx, and NOx that are either receptors or contributors of transported air pollutants. The purpose of the Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan (TAQAP) is to comply with the requirements of the CCAA as implemented through the California Health and Safety Code. Districts in the NSVPA are required to update the Plan every three years. The TAQAP is formatted to reflect the 1990 baseline emissions year with a planning horizon of 2020. The Health and Safety Code, sections 40910 and 40913, require the Districts to achieve state standards by the earliest practicable date to protect the public health, particularly that of children, the elderly, and people with respiratory illness.

Health and Safety Code Section 41503(b): Requires that control measures for the same emission sources are uniform throughout the planning area to the extent that is feasible. To meet this requirement, the NSVPA has coordinated the development of an Attainment Plan and has set up a specific rule adoption protocol. The protocol was established by the Technical Advisory Committee of the Sacramento Valley Basin-wide Air Pollution Control Council and the Sacramento Valley Air Quality Engineering and

Enforcement Professionals, which allow the Districts in the Basin to act and work as a united group with the CARB as well as with industry in the rule adoption process. Section 40912 of the Health and Safety Code states that each District responsible for, or affected by, air pollutant transport shall provide for attainment and maintenance of the state and federal standards in both upwind and downwind Districts. This section also states that each downwind District's Plan shall contain sufficient measures to reduce emissions originating in each District to below levels which violate state ambient air quality standards, assuming the absence of transport contribution

Construction Generated Emissions of Criteria Air Pollutants: The District recommends the following best management practices:

- Implement the Fugitive Dust Control Plan.
- Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0,
- Visible Emissions limitations (40 percent opacity or Ringelmann 2.0).
- The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
- Limiting idling time to 5 minutes – saves fuel and reduces emissions.
- Utilize existing power sources or clean fuel generators rather than temporary power generators.
- Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
- Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

3.3.5. Impact Assessment/Environmental Consequences:

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

Grading the site and creation of building pads will briefly create equipment exhaust and fugitive dust. Ongoing air quality impacts will be from exhaust generated by vehicle traffic from the new residences. Standards set by FRQAMD, CARB, and Federal agencies relating to the proposed Project will apply to this Project. Prior to the initiation of construction, a Fugitive Dust Control Plan will be submitted to FRAQMD as a part of standard measures required by the District. An Indirect Source Review (ISR) application will be filed with the Air District to address emissions from construction.

Since the developer must prepare an air quality analysis and incorporate all of the resulting conditions into the Project and that a fugitive dust control plan be submitted prior to beginning work on the subdivision, any potential significant environmental impacts should be reduced to 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?

The Project will result in limited generation of criteria pollutants during Project construction and from vehicle traffic generated by the new residents following the construction of the single-family residences. However, FRAQMD did not comment that the standards would be exceeded by this Project to the extent of being cumulatively significant. Therefore, the cumulative impacts are considered to be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

The FRAQMD defines sensitive receptors as: facilities that house or attract children, the elderly, and people with illnesses, or others who are especially sensitive to the effects of air pollutants. FRAQMD states that if a project is located within 1,000 feet of a sensitive receptor location, the impact of diesel particulate matter shall be evaluated. According to the FRAQMD's Indirect Source Review Guidelines, "Construction activity can result in emissions of particulate matter from the diesel exhaust (diesel PM) of construction equipment.

There are no sensitive receptors within 1,000 feet of the Project. However, the Best Management Practices (BMPs) that will be used to reduce the impact from off-road diesel equipment include:

- Install diesel particulate filters or implement other ARB-verifies diesel emission control strategies on all construction equipment to further reduce diesel PM emissions beyond the 45% reduction required by the Districts Best Available Mitigation Measure for Construction Phase;
- Use equipment during times when receptors are not present (e.g., when school is not in session or during non-school hours; or when office buildings are unoccupied);
- Establish staging areas for the construction equipment that are as distant as possible from off-site receptors;
- Establish an electricity supply to the construction site and use electric powered equipment instead of diesel-powered equipment or generators, where feasible;
- Use haul trucks with on-road engines instead of off-road engines even for on-site hauling;
- Equip nearby buildings with High Efficiency Particle Arresting (HEPA) filter systems at all mechanical air intake points to the building to reduce the levels of diesel PM that enter the buildings; and/or,
- Temporarily relocate receptors during construction.

Therefore, the impact will be less than significant.

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

Construction of the single-family residences and the ongoing living conditions typically do not generate objectionable odors. As such, the impact of the Project creating local offensive odors will be less than significant.

3.4. Biological Resources

Table 3.4: Biological Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. 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 interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

3.4.1. Environmental Setting/Affected Environment

The 15.84-acre level property is within the Yuba City urbanized area. The site has been previously graded with no native habitat remaining. The site is surrounded by single-family residences, an orchard, and State Route 99. There are no known on-site or nearby riparian or critical habitat areas.

3.4.2. Federal & State Regulatory Setting

Threatened and Endangered Species: State and federal "endangered species" legislation has provided California Department of Fish & Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal endangered species acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as

"species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the "take" of a listed species. "Take" is defined by the state of California as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

Migratory Birds: State and federal laws also protect most birds. The Federal Migratory Bird Treaty Act (16U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

Birds of Prey: Birds of prey are also protected in California under provisions of the California Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Wetlands and Other Jurisdictional Waters: Natural drainage channels and adjacent wetlands may be considered "Waters of the United States" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations but has also been subject to interpretation of the federal courts.

Waters of the U.S. generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters, which are subject to the ebb and flow of the tide.
- All interstate waters including interstate wetlands.
- 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, the use, degradation or destruction of which could affect interstate or foreign commerce.
- All impoundments of waters otherwise defined as waters of the United States under the definition.
- Tributaries of waters identified in the bulleted items above.

As determined by the United States Supreme Court in its 2001 Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers (SWANCC) decision, channels and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional on the basis of their use, hypothetical or observed, by migratory birds. Similarly, in its 2006 consolidated Carabell/Rapanos decision, the U.S. Supreme Court ruled that a significant nexus between a wetland and other navigable waters must exist for the wetland itself to be considered a navigable, and therefore, jurisdictional water.

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by "ordinary high-water marks" on opposing channel banks. All activities that involve the discharge of dredge or fill material into

Waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards.

CEQA Guidelines Section 15380: Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specific criteria that define "endangered" and "rare" as specified in CEQA Guidelines section 15380(b).

3.4.3. Local Regulatory Setting

The General Plan provides the following policies for the protection of biological resources within the project area:

8.4-G-1 Protect special status species, in accordance with State regulatory requirements.

8.4-G-2 Protect and enhance the natural habitat features of the Feather River and new open space corridors within and around the urban growth area.

8.4-G-3 Preserve and enhance heritage oaks in the Planning Area.

8.4-G-4 Where appropriate, incorporate natural wildlife habitat features into public landscapes, parks, and other public facilities

8.4-I-1 Require protection of sensitive habitat area and special status species in new development site designs in the following order: 1) avoidance; 2) onsite mitigation; 3) offsite mitigation. Require assessments of biological resources prior to approval of any development within 300 feet of any creeks, sensitive habitat areas, or areas of potential sensitive status species.

8.4-I-2 Require preservation of oak trees and other native trees that are of a significant size, by requiring site designs to incorporate these trees to the maximum extent feasible.

8.4-I-3 Require to the extent feasible, use of drought tolerant plants in landscaping for new development, including private and public projects.

3.4.4. Impact Assessment/Environmental Consequences:

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?

A biological assessment was prepared for the Project (Marcus Bole & Associates, January 3, 2020, Biological Assessment and Wetland Determination for the Johnson Ranch Tentative Subdivision Tract Map Project – Appendix C). The study concluded that there was no evidence of any candidate, sensitive, or special status species within the vicinity. The study concluded that the impacts on any of these species was less than significant.

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 U.S. Fish and Wildlife Service?

The biological assessment concluded that there is no riparian habitat or other sensitive natural community within the Project area. As such there would be no impacts on riparian habitat or other sensitive natural communities.

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 interruption, or other means?

The biological assessment concluded that there are no wetlands and related habitats within the Project area. As such there would be no impacts on any protected wetlands.

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?

The proposed Project would not disturb any waterways, as the nearest waterway is the Feather River, being about a mile to the east. Therefore, migratory fish will not be affected. Regarding migratory birds and raptors, a survey was conducted during January 2023, as there are some non-native trees near the residence at the northeast part of the property. There were no migratory avian species observed within the Project area and within one-quarter mile of it. Since the study was conducted outside of the migratory season (February 1 through August 31) a mitigation that requires a preconstruction nesting bird survey be conducted during the potential nesting period. With this mitigation the potential impacts on migratory birds will be less than significant.

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

No native trees or other biological resources that would be protected by local policies or ordinances remain on the proposed Project site. There are several non-native trees in the yard of the existing residence that will be removed as part of the Project. With the mitigation discussed above, the impacts would be less than significant.

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?

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or any other approved local, regional, or state habitat conservation plans in the vicinity of this project.

3.4.5 Biological Resources Mitigation Measure

Biological Resources Mitigation Measure 1: Preconstruction nesting bird surveys will be required during nesting season (February 1 through August 31) prior to demolition of the buildings/structures or onsite trees. The appropriate area to be surveyed and timing of the survey may vary depending on the activity and species that could be affected. If no active nests are found during the focused surveys, no further

action under this measure will be required. If an active nest is located during the preconstruction surveys, the biologist will notify CDFW. If necessary, modifications to the Project design to avoid removal of occupied habitat while still achieving project objectives will be evaluated and implemented to the extent feasible. If avoidance is not feasible, construction will be prohibited within 100 feet of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior of the nesting bird is observed.

3.5. Cultural Resources

Table 3.5: Cultural Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.			X	
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5.			X	
c) Disturb any human remains, including those interred outside of dedicated cemeteries?		X		

3.5.1. Federal Regulatory Setting

National Historic Preservation Act of 1966 (as amended), Section 106: The significance of cultural resources is evaluated under the criteria for inclusion in the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, as amended. The criteria defined in 36 CFR 60.4 are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important to prehistory or history.

Sites listed or eligible for listing on the NRHP are considered to be historic properties. Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

3.5.2. State Regulatory Setting

CEQA requires consideration of project impacts on archaeological or historical sites deemed to be "historical resources." Under CEQA, a substantial adverse change in the significant qualities of a historical resource is considered a significant effect on the environment. For the purposes of CEQA, a "historical resource" is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (Title 14 CCR §15064.5[a][1]-[3]). Historical resources may include, but are not limited to, "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC §5020.1[j]).

The eligibility criteria for the California Register are the definitive criteria for assessing the significance of historical resources for the purposes of CEQA (Office of Historic Preservation). Generally, a resource is considered "historically significant" if it meets one or more of the following criteria for listing on the California Register:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- Is associated with the lives of persons important in our past.
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1[c])

In addition, the resource must retain integrity. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association (CCR Title 14, § 4852(c)).

Historical resources may include, but are not limited to, "any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (PRC §5020.1[j]).

California Health and Safety Code Section 7050.5: Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.

3.5.3. Native American Consultation

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze Project impacts on "tribal cultural resources" separately from archaeological resources (PRC §

21074; 21083.09). AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC § 21080.3.1, 21080.3.2, 21082.3).

3.5.4. Impact Assessment/Environmental Consequences:

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

A cultural study was prepared for this subdivision (Jenson, January 2, 2023, Cultural Resources Inventory Survey – Johnson Ranch Estates Subdivision – Appendix B). There is an existing residence and garage/shop at 2726 West Onstott Road that will be removed as part of this development. They were constructed in 1968. The study concluded that there are no historical resources or unique archaeological resources located on the site. Therefore, the potential significant impacts on any historical resources is less than significant.

b) Cause a substantial adverse change in the significance of an archeological resource pursuant to § 15064.5.

See a) above.

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

There has been a cultural study prepared for the property and no formal cemeteries or other places of human internment are known to exist on the proposed Project site. However, there still remains the potential for previously unknown sub-surface resources to be present. In order to avoid potential impacts to unknown remains, a mitigation measure is provided in Section 3.18, which is also applicable here, to ensure potential impacts are less than significant.

3.6 Energy

Table 3-6: Energy

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts 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	

3.6.1 State Regulatory Setting

California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of

its Building Standards Code, California Codes of Regulations, Title 24. In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, also known as CALGreen, which became mandatory in 2011. Both Title 24 and CALGreen are implemented by the City of Yuba City in conjunction with its processing of building permits.

CALGreen sets forth mandatory measures, applicable to new residential and nonresidential structures as well as additions and alterations, on water efficiency and conservation, building material conservation, interior environmental quality, and energy efficiency. California has adopted a Renewables Portfolio Standard, which requires electricity retailers in the state to generate 33% of electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2020. In 2018, SB 100 was signed into law, which increases the electricity generation requirement from renewable sources to 60% by 2030 and requires all the state's electricity to come from carbon-free resources by 2045.

3.6.2. Impact Assessment/Environmental Consequences

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

Project construction would involve fuel consumption and use of other non-renewable resources. Construction equipment used for such improvements typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. However, construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

Electricity may be used for equipment operation during construction activities. It is expected that more electrical construction equipment will be used in the future, as it would generate fewer air pollutant and GHG emissions. This electrical consumption would be consistent with other construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient, or unnecessary, especially since fossil fuel consumption would be reduced. Moreover, under California's Renewables Portfolio Standard, a greater share of electricity would be provided from renewable energy sources over time, so less fossil fuel consumption to generate electricity would occur.

The Project would be required to comply with CALGreen and with the building energy efficiency standards of California Code of Regulations Title 24, Part 6 in effect at the time of Project approval. Compliance with these standards would reduce energy consumption associated with Project operations, although reductions from compliance cannot be readily quantified. Overall, Project construction would typically not consume energy resources in a manner considered wasteful, inefficient, or unnecessary.

Following construction of the single-family residences, the main sources of energy consumption would be household operations and vehicle usage. However, since FRAQMD did not respond otherwise, the residents of the 82 new residences and their associated operation of vehicles is not a large enough impact on air quality to be considered significant.

Project impacts related to energy consumption are considered less than significant.

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

The Project would be consistent with applicable state and local plans to increase energy efficiency. Thus, the Project's impacts on local or state plans for energy efficiency will be less than significant.

3.7 Geology and Soils

Table 3.7: Geology and Soils				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geological 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
f) Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?		X		

3.7.1 Environmental Setting/Affected Environment

Topography and Geology: According to the Sutter County General Plan, Sutter County is located in the flat surface of the Great Valley geomorphic province of California. The Great Valley is an alluvial plain

approximately 50 miles wide and 400 miles long in the central portion of California. The Great Valley's northern portion is the Sacramento Valley, drained by the Sacramento River, and its southern portion is the San Joaquin Valley, drained by the San Joaquin River. The geology of the Great Valley is typified by thick sequences of alluvial sediments derived primarily from erosion of the mountains of the Sierra Nevada to the east, and to a lesser extent, erosion of the Klamath Mountains and Cascade Range to the north. These sediments were transported downstream and subsequently laid down as a river channel, floodplain deposits, and alluvial fans.

Seismic Hazards: Earthquakes are due to a sudden slip of plates along a fault. Seismic shaking is typically the greatest cause of losses to structures during earthquakes. Earthquakes can cause structural damage, injury and loss of life, as well as damage to infrastructure networks such as water, power, gas, communication, and transportation lines. Other damage-causing effects of earthquakes include surface rupture, fissuring, settlement, and permanent horizontal and vertical shifting of the ground. Secondary impacts can include landslides, seiches, liquefaction, and dam failure.

Seismicity: Although all of California is typically regarded as seismically active, the Central Valley region does not commonly experience strong ground shaking resulting from earthquakes along known and previously unknown active faults. Though no active earthquake faults are known to exist in Yuba City, active faults in the region could generate ground motion felt within the County. Numerous earthquakes of magnitude 5.0 or greater on the Richter scale have occurred on regional faults, primarily those within the San Andreas Fault System in the region. There are several potentially active faults underlying the Sutter Buttes, which are associated with deep-seated volcanism.

The faults identified in Sutter County include the Quaternary Faults, located in the northern section of the County within the Sutter Buttes, and the Pre-Quaternary Fault, located in the southeast of the City, just east of where Highway 70 enters into the County. Both Faults are listed as non-active faults but have the potential for seismic activity.

Ground Shaking: As stated in the Sutter County Multi-Hazard Mitigation Plan, although the County has felt ground shaking from earthquakes with epicenters located elsewhere, no major earthquakes or earthquake related damage has been recorded within the County. Based on historic data and known active or potentially active faults in the region, parts of Sutter County have the potential to experience low to moderate ground shaking. The intensity of ground shaking at any specific site depends on the characteristics of the earthquake, the distance from the earthquake fault, and on the local geologic and soils conditions. Fault zone maps are used to identify where such hazards are more likely to occur based on analyses of faults, soils, topography, groundwater, and the potential for earthquake shaking sufficiently strong to trigger landslide and liquefaction.

Liquefaction: Liquefaction, which can occur in earthquakes with strong ground shaking, is mostly found in areas with sandy soil or fill and a high-water table located 50 feet or less below the ground surface. Liquefaction can cause damage to property with the ground below structures liquefying making the structure unstable causing sinking or other major structural damage. Evidence of liquefaction may be observed in "sand boils," which are expulsions of sand and water from below the surface due to increased pressure below the surface.

Liquefaction during an earthquake requires strong shaking and is not likely to occur in the city due to the relatively low occurrence of seismic activity in the area; however, the clean sandy layers paralleling the Sacramento River, Feather River, and Bear River have lower soil densities and high overall water table are potentially a higher risk area if major seismic activity were to occur. Areas of bedrock, including the Sutter Buttes have high density compacted soils and contain no liquefaction potential, although localized areas of valley fill alluvium can have moderate to high liquefaction potential.

Landslides: Landslides are downward and outward movements of slope forming materials which may be rock, soil, artificial fill, or combinations of such materials. The size of landslides varies from those containing less than a cubic yard of material to massive ones containing millions of cubic yards. Large landslides may move down slope for hundreds of yards or even several miles. A landslide may move rapidly or so slow that a change of position can be noted only over a period of weeks or years. A similar, but much slower movement is called creep. The susceptibility of a given area to landslides depends on a great many variables. With the exception of the Sutter Buttes, Yuba City is located in a landslide-free zone due to the flat topography. The Sutter Buttes are considered to be in a low landslide hazard zone as shown in Bulletin 198 by the California Division of Mines and Geology.

Soil Erosion: Erosion is a two-step process by which soils and rocks are broken down or fragmented and then transported. The breakdown processes include mechanical abrasion, dissolution, and weathering. Erosion occurs naturally in most systems but is often accelerated by human activities that disturb soil and vegetation. The rate at which erosion occurs is largely a function of climate, soil cover, slope conditions, and inherent soil properties such as texture and structure. Water is the dominant agent of erosion and is responsible for most of the breakdown processes as well as most of the transport processes that result in erosion. Wind may also be an important erosion agent. The rate of erosion depends on many variables including the soil or rock texture and composition, soil permeability, slope, extent of vegetative cover, and precipitation amounts and patterns. Erosion increases with increasing slope, increasing precipitation, and decreasing vegetative cover. Erosion can be extremely high in areas where vegetation has been removed by fire, construction, or cultivation. High rates of erosion may have several negative impacts including degradation and loss of agricultural land, degradation of streams and other water habitats, and rapid silting of reservoirs.

Subsidence: Subsidence is the sinking of a large area of ground surface in which the material is displaced vertically downward, with little or no horizontal movement. Subsidence is usually a direct result of groundwater, oil, or gas withdrawal. These activities are common in several areas of California, including parts of the Sacramento Valley and in large areas of the San Joaquin Valley. Subsidence is a greater hazard in areas where subsurface geology includes compressible layers of silt and clay. Subsidence due to groundwater withdrawal generally affects larger areas and presents a more serious hazard than does subsidence due to oil and gas withdrawal. In portions of the San Joaquin Valley, subsidence has exceeded 20 feet over the past 50 years. In the Sacramento Valley, preliminary studies suggest that much smaller levels of subsidence, up to two feet may have occurred. In most of the valley, elevation data are inadequate to determine positively if subsidence has occurred. However, groundwater withdrawal in the Sacramento Valley has been increasing and groundwater levels have declined in some areas. The amount of subsidence caused by groundwater withdrawal depends on several factors, including: (1) the extent of water level decline, (2) the thickness and depth of the water bearing strata tapped, (3) the thickness and compressibility of silt-clay layers within the vertical sections where groundwater withdrawal is occurring, (4) the duration of maintained groundwater level decline, (5) the number and magnitude of water withdrawals in a given area, and (6) the general geology and geologic structure of the groundwater basin. The damaging effects of subsidence include gradient changes in roads, streams, canals, drains, sewers, and dikes. Many such systems are constructed with slight gradients and may be significantly damaged by even small elevation changes. Other effects include damage to water wells resulting from sediment compaction and increased likelihood of flooding of low-lying areas.

Expansive Soils: Expansive soils are prone to change in volume due to the presence of moisture. Soft clay soils have the tendency to increase in volume when moisture is present and shrink when it is dry (shrink/swell). Swelling soils contain high percentages of certain kinds of clay particles that are capable

of absorbing large quantities of water, expanding up to 10 percent or more as the clay becomes wet. The force of expansion is capable of exerting pressure on foundations, slabs, and other confining structures.

Soils: The Natural Resources Conservation Service (NRCS, formerly the Soil Conservation Service) has mapped over 40 individual soil units in the county. The predominant soil series in the county are the Capay, Clear Lake, Conejo, Oswald, and Olashes soils, which account for over 60 percent of the total land area. The remaining soil units each account for smaller percentages the total land area. The Capay and Clear Lake soils are generally present in the western and southern parts of the county. The Conejo soils occur in the eastern part closer to the incorporated areas of the county. Oswald and Olashes soils are located in the central portion of the county extending north to south, with scattered areas along the southeastern edge of the county. Soil descriptions for the principal soil units in the county are provided below. These descriptions, which were developed by the NRCS, are for native, undisturbed soils and are primarily associated with agricultural suitability. Soil characteristics may vary considerably from the mapped locations and descriptions due to development and other uses. Geotechnical studies are required to identify actual engineering properties of soils at specific locations to determine whether there are specific soil characteristics that could affect foundations, drainage, infrastructure, or other structural features.

3.7.2 Federal Regulatory Setting

Historic Sites Act of 1935: This Act became law on August 21, 1935 (49 Stat. 666; 16 U.S.C. 461-467) and has been amended eight times. This Act establishes as a national policy to preserve for public use historic sites, buildings and objects, including geologic formations.

National Earthquake Hazards Reduction Program: The National Earthquake Hazards Reduction Program (NEHRP), which was first authorized by Congress in 1977, coordinates the earthquake-related activities of the Federal Government. The goal of NEHRP is to mitigate earthquake losses in the United States through basic and directed research and implementation activities in the fields of earthquake science and engineering. Under NEHRP, FEMA is responsible for developing effective earthquake risk reduction tools and promoting their implementation, as well as supporting the development of disaster-resistant building codes and standards. FEMA's NEHRP activities are led by the FEMA Headquarters (HQ), Federal Insurance and Mitigation Administration, Risk Reduction Division, Building Science Branch, in strong partnership with other FEMA HQ Directorates, and in coordination with the FEMA Regions, the States, the earthquake consortia, and other public and private partners.

3.7.3 State Regulatory Setting

California Alquist-Priolo Earthquake Fault Zoning Act: The Alquist-Priolo Earthquake Fault Zoning Act (originally enacted in 1972 and renamed in 1994) is intended to reduce the risk to life and property from surface fault rupture during earthquakes. The statute prohibits the location of mot types of structures intended for human occupancy across the traces of active faults and regulates construction in the corridors along active faults.

California Seismic Hazards Mapping Act: The Seismic Hazards Mapping Act is intended to reduce damage resulting from earthquakes. While the Alquist-Priolo Earthquake Fault Zoning Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones.

Uniform Building Code: The California Code of Regulations (CCR) Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. The California Building Code incorporates by reference the Uniform Building Code with necessary California amendments. The Uniform Building Code is a widely adopted model building code in the United States published by the International Conference of Building Officials. About one-third of the text within the California Building Code has been tailored for California earthquake conditions.

Paleontological Resources: Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources. CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) Section 15126.4 (a)(1)). California Public Resources Code Section 5097.5 (see above) also applies to paleontological resources.

3.7.4 Impact Assessment/Environmental Consequences:

a) Directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area, or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

According to the Yuba City General Plan, no active earthquake faults are known to exist in Sutter County, although active faults in the region could produce ground motion in Yuba City (Dyett & Bhatia, 2004). The closest known fault zone is the Bear Mountain Fault Zone, located approximately 20 miles northeast of Yuba City (California Geological Survey [CGS], 2015). Potentially active faults do exist in the Sutter Buttes, but those faults are considered small and have not exhibited activity in recent history. Because the distance from the City to the closest known active fault zone is large, the potential for exposure of people or structures to substantial adverse effects from fault rupture is low. Considering that the Building Code incorporates construction standards for minimizing earthquake damage to buildings, and the low potential for a significant earthquake activity in the vicinity, the potential for adverse impacts from an earthquake is less than significant.

ii. Strong seismic ground shaking?

In the event of a major regional earthquake, fault rupture or seismic ground shaking could potentially injure people and cause collapse or structural damage to existing and proposed structures. Ground shaking could potentially expose people and property to seismic-related hazards, including localized liquefaction and ground failure. However, all new structures are required to adhere to current California Building Code standards. These standards require adequate design, construction, and maintenance of structures to prevent exposure of people and structures to major geologic hazards. General Plan Implementing Policies 9.2-I-1 through 9.2-I-8 and the building codes reduce the potential impacts to less than significant.

iii. Seismic-related ground failure, including liquefaction?

The proposed Project is not located within a liquefaction zone according to the California Department of Conservation's California Geologic Survey regulatory maps. Regardless, all new structures are required to adhere to current California Building Code standards. These standards require adequate design, construction and maintenance of structures to prevent exposure of people and structures to major geologic hazards. Therefore, the potential impact from ground failure is less than significant.

iv. Landslides?

According to the Environmental Impact Report prepared for the General Plan, due to the flat topography, erosion, landslides, and mudflows are not a risk in the City limits or within the City's Sphere of Influence.

b) Result in substantial soil erosion or the loss of topsoil?

Most of the 15.84 acres of ground would be disturbed during site grading. Even though the area is relatively flat, during site grading a large storm could result in the loss of topsoil into the City drainage system. However, as part of the grading and construction of the subdivision, the applicant will be required to follow Best Management Practices (BMP's) and provide erosion control measures to minimize soil runoff during the construction process. Therefore, impacts from soil erosion will be less than significant.

c) Be located on a geological 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?

See b) above.

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?

The extreme southwest corner of the Yuba City Sphere of Influence is the only known area with expansive soils. The Project area is not located within that area and therefore will not be impacted by the presence of expansive soils.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

All of the new residences will be connected to the City's wastewater collection and treatment system. No new septic systems will be utilized. As such, there will be no new impacts from septic systems.

f) Directly or indirectly destroy a unique paleontological resources or site or unique geologic feature?

Due to prior ground disturbances for agricultural and residential uses it is unlikely that any paleontological resources exist on the site. However, the following mitigation measure shall apply if any paleontological resources are discovered:

3.7.5 Paleontological Mitigation Measures

Paleontological Mitigation Measure 1: Mitigation Measure 1 shall be placed as a note on the Demolition and Grading Plans. If paleontological resources are found, the construction manager shall halt all activity and immediately contact the Development Services Department at 530-822-4700.

Mitigation shall be conducted as follows:

1. Identify and evaluate paleontological resources by intense field survey where impacts are considered high;
2. Assess effects on identified sites;
3. Consult with the institutional/academic paleontologists conducting research investigations within the geological formations that are slated to be impacted;
4. Obtain comments from the researchers;
5. Comply with researchers' recommendations to address any significant adverse effects where determined by the City to be feasible.

In considering any suggested mitigation proposed by the consulting paleontologist, the City's Community Development Department Staff shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, Specific or General Plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the Project site while mitigation for paleontological resources is carried out.

3.8 Greenhouse Gas Emissions

Table 3.8: Greenhouse Gas Emissions				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?		X		
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?		X		

3.8.1 Federal Regulatory Setting

The United States Environmental Protection Agency (USEPA) Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO2-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the Clean Air Act (CAA) permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and title V Operating Permit programs are required for new and existing industrial facilities. In addition, the Supreme Court decision in Massachusetts v. EPA (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of greenhouse gases

(GHG) under the CAA. On April 17, 2009, the USEPA found that CO2, CH4, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not propose regulations based on this finding.

3.8.2 State & Local Regulatory Setting

The City's Resource Efficiency Plan as designed under the premise that the City, and the community it represents, is uniquely capable of addressing emissions associated with sources under the City's jurisdiction and that the City's emission reduction efforts should coordinate with the state strategies of reducing emissions in order to accomplish these reductions in an efficient and cost-effective manner. The City developed this document with the following purposes in mind:

- Local Control: The Yuba City Efficiency Plan allows the City to identify strategies to reduce resource consumption, costs, and GHG emissions in all economic sectors in a way that maintains local control over the issues and fits the character of the community. It also may position the City for funding to implement programs tied to climate goals.
- Energy and Resource Efficiency: The Efficiency Plan identifies opportunities for the City to increase energy efficiency and lower GHG emissions in a manner that is most feasible within the community. Reducing energy consumption through increasing the efficiency of energy technologies, reducing energy use, and using renewable sources of energy are effective ways to reduce GHG emissions. Energy efficiency also provides opportunities for cost-savings.
- Improved Public Health: Many of the GHG reduction strategies identified in the Efficiency Plan also have local public health benefits. Benefits include local air quality improvements; creating a more active community through implementing resource-efficient living practices; and reducing health risks, such as heat stroke, that would be otherwise elevated by climate change impacts such as increased extreme heat days.

Demonstrating Consistency with State GHG Reduction Goals—A GHG reduction plan may be used as GHG mitigation in a General Plan to demonstrate that the City is aligned with State goals for reducing GHG emissions to a level considered less than cumulatively considerable.

3.8.3 Impact Assessment/Environmental Consequences:

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

See b) below.

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

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, similar to a greenhouse. The accumulation of GHGs has been implicated as a driving force for Global Climate Change. Definitions of climate change vary between and across regulatory authorities and the scientific community, but in general can be described as the changing of the climate caused by natural fluctuations and the impact of human activities that alter the composition of the global atmosphere. Both natural processes and human

activities emit GHGs. Global Climate Change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the speed of global warming and the extent of the impacts attributable to human activities, the vast majority of the scientific community now agrees that there is a direct link between increased emission of GHGs and long-term global temperature. Potential global warming impacts in California may include, but are not limited to, loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years. Secondary effects are likely to include a global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA).

The construction of this subdivision will create GHG emissions due to the use of motorized construction equipment. Once completed, vehicle traffic generated by auto use from the new residences will contribute GHG gases. While the Project alone is not expected to create significant greenhouse gas emissions, on a cumulative scale the impact could be significant. As such, possible reasonable reductions could be applied to the Project in order to minimize those impacts. Specifically addressing this proposal, the City's Resource Efficiency Plan addresses greenhouse gas concerns and provides a description of greenhouse gas reduction measures. A mitigation measure is included that requires the Project to incorporate the relevant greenhouse gas reduction measures. With this mitigation the impacts from greenhouse gases will be less than significant.

3.8.4 Greenhouse Mitigation Measure

Greenhouse Gas Mitigation Measure 1: The site grading process shall comply with the GHG Reduction Measures provided in the adopted Yuba City Resource Efficiency Plan.

3.9 Hazards and Hazardous Materials

Table 3.9: Hazards and Hazardous Materials				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?			X	
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.			X	

3.9.1 Federal Regulatory Setting

U.S. Environmental Protection Agency (USEPA): The USEPA was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard setting and enforcement activities to ensure environmental protection. USEPA's mission is to protect human health and to safeguard the natural environment — air, water, and land — upon which life depends. USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress, is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, USEPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act: The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the USEPA for the regulation of the generation,

transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (U.S. Code Title 42, Chapter 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulation [CFR], Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List (NPL). CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

Clean Water Act/SPCC Rule: The Clean Water Act (CWA) (33 U.S.C. Section 1251 et seq., formerly the Federal Water Pollution Control Act of 1972), was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. As part of the Clean Water Act, the U.S. EPA oversees and enforces the Oil Pollution Prevention regulation contained in Title 40 of the CFR, Part 112 (Title 40 CFR, Part 112) which is often referred to as the "SPCC rule" because the regulations describe the requirements for facilities to prepare, amend and implement Spill Prevention, Control, and

Countermeasure (SPCC) Plans: A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total above ground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons, and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the "Navigable Waters" of the United States.

Other federal regulations overseen by the U.S. EPA relevant to hazardous materials and environmental contamination include Title 40, CFR, Chapter 1, Subchapter D – Water Programs and Subchapter I – Solid Wastes. Title 40, CFR, Chapter 1, Subchapter D, Parts 116 and 117 designate hazardous substances under the Federal Water Pollution Control Act: Title 40, CFR, Part 116 sets forth a determination of the reportable quantity for each substance that is designated as hazardous. Title 40, CFR, Part 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

The NFPA 70®: National Electrical Code® is adopted in all 50 states. Any electrical work associated with the Proposed Project is required to comply with the standards set forth in this code. Several federal regulations govern hazards as they are related to transportation issues. They include:

Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.

49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.

49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

3.9.2 State Regulatory Setting

California Environmental Protection Agency (CalEPA): The California Environmental Protection Agency (CalEPA) was created in 1991 by Governor's Executive Order. The six boards, departments, and office were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. The mission of CalEPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality under Title 22 of the California Code of Regulations (CCR).

Department of Toxic Substances Control (DTSC): DTSC is a department of Cal/EPA and is the primary agency in California that regulates hazardous waste, cleans-up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Government Code Section 65962.5 (commonly referred to as the Cortese List) includes DTSC listed hazardous waste facilities and sites, DHS lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and which have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

Unified Program: The Unified Program (codified CCR Title 27, Division 1, Subdivision 4, Chapter 1, Sections 15100- 15620) consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following six environmental and emergency response programs:

- Hazardous Waste Generator (HWG) program and Hazardous Waste On-site Treatment activities;
- Aboveground Storage Tank (AST) program Spill Prevention Control and Countermeasure Plan requirements;
- Underground Storage Tank (UST) program;
- Hazardous Materials Release Response Plans and Inventory (HMRRP) program;
- California Accidental Release Prevention (CalARP) program;
- Hazardous Materials Management Plans and Hazardous Materials Inventory Statement (HMMP/HMIS) requirements.

The Secretary of CalEPA is directly responsible for coordinating the administration of the Unified Program. The Unified Program requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local Certified Unified Program Agency (CUPA) is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements in the county. Most CUPAs have been established as a function of a local environmental health or fire department.

Hazardous Waste Management Program: The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement, and Unified Program activities in accordance with California Health and Safety Code Section 25135 et seq. The main focus of HWMP is to ensure the safe storage, treatment, transportation, and disposal of hazardous wastes.

State Water Resources Control Board (SWRCB): The State Water Resources Control Board (SWRCB) was created by the California legislature in 1967. The mission of SWRCB is to ensure the highest reasonable

quality for waters of the State, while allocating those waters to achieve the optimum balance of beneficial uses. The joint authority of water allocation and water quality protection enables SWRCB to provide comprehensive protection for California's waters.

California Department of Industrial Relations – Division of Occupational Safety and Health (Cal OSHA): In California, every employer has a legal obligation to provide and maintain a safe and healthful workplace for employees, according to the California Occupational Safety and Health Act of 1973 (per Title 8 of the CCR). The Division of Occupational Safety and Health (Cal/OSHA) program is responsible for enforcing California laws and regulations pertaining to workplace safety and health and for providing assistance to employers and workers about workplace safety and health issues. Cal/OSHA regulations are administered through Title 8 of the CCR. The regulations require all manufacturers or importers to assess the hazards of substances that they produce or import and all employers to provide information to their employees about the hazardous substances to which they may be exposed.

California Fire Code: The California Fire Code is Part 9 of the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. The California Fire Code incorporates the Uniform Fire Code with necessary California amendments. This Code prescribes regulations consistent with nationally recognized good practice for the safeguarding to a reasonable degree of life and property from the hazards of fire explosion, and dangerous conditions arising from the storage, handling and use of hazardous materials and devices, and from conditions hazardous to life or property in the use or occupancy of buildings or premises and provisions to assist emergency response personnel.

3.9.3 Local Regulatory Setting

Sutter County Airport Comprehensive Land Use Plan: The SCACLUP was adopted in April 1994 by the Sacramento Area Council of Governments (SACOG). SACOG is the designated Airport Land Use Commission (ALUC) for Sacramento, Sutter, Yolo and Yuba Counties under the provisions of the California Public Utilities Code, Chapter 4, Article 3.5, Section 21670.1 Airport Land Use Commission Law. The purpose of the ALUC law is to (1) protect public health, safety, and welfare through the adoption of land use standards that minimize the public's exposure to safety hazards and excessive levels of noise, and (2) Prevent the encroachment of incompatible land uses around public-use airports, thereby preserving the utilities of these airports into the future.

3.9.4 Impact Assessment/Environmental Consequences:

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

See b) below.

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?

The only hazardous materials associated with the construction of this subdivision will be those materials associated with grading and construction equipment, which typically includes solvents, oil and fuel. Provided that these materials are legally and properly used and stored, the proposed Project will not create a significant hazard to the public or the environment. On an ongoing basis the only anticipated hazardous waste generated by the Project would be household hazardous waste. Assuming proper and legal disposal of those wastes there should not be a significant impact from hazardous materials.

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 is not a school within one-quarter mile of the proposed subdivision. Therefore, there is not a potential for any impacts on a school from hazardous materials.

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 create a significant hazard to the public or the environment?

The property is not on any listings of sites that are contaminated by hazardous wastes. Therefore, there is not a potential for any impacts from a known hazardous materials site.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

The Project is not located within the adopted Sutter County Airport and the Yuba County Airport Land Use Plans.

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

The Yuba City Fire Department and Police Department serve this area. Neither agency has expressed concern over impacts the Project may have on any emergency response plans. Accordingly, there will be no significant impacts.

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The Project site is located in an urban area and the urban area is surrounded by irrigated agricultural lands. There are no wildlands on the site or in the immediate vicinity. Accordingly, the impacts from potential wildland fires will be less than significant.

3.10 Hydrology and Water Quality

Table 3.10: Hydrology and Water Quality				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impeded 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:				
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
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	

3.10.1 Federal Regulatory Setting

Clean Water Act: The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

Federal Emergency Management Agency (FEMA) Flood Zones: The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed

Flood Insurance Rate Maps (FIRM) that can be used for planning purposes. Flood hazard areas identified on the Flood

Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is also referred to as the base flood or 100-year flood. SFHAs are labeled as Zone A, Zone AO, Zone AH, Zones A1-A30, Zone AE, Zone A99, Zone AR, Zone AR/AE, Zone AR/AO, Zone AR/A1-A30, Zone AR/A, Zone V, Zone VE, and Zones V1-V30. Moderate flood hazard areas, labeled Zone B or Zone X (shaded) are also shown on the FIRM, and are the areas between the limits of the base flood and the 0.2-percent-annual-chance (or 500-year) flood. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded).

3.10.2 State Regulatory Setting

State Water Resources Control Board: The State Water Resources Control Board (SWRCB) is the agency with jurisdiction over water quality issues in the State of California. The WRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code), which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter- Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Regional Water Quality Control board.

Central Valley Regional Water Quality Control Board (CVRWQCB): administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). Additionally, CVRWQCB is responsible for issuing Waste Discharge Requirements Orders under California Water Code Section 13260, Article 4, Waste Discharge Requirements.

State Department of Water Resources: California Water Code (Sections 10004 et seq.) requires that the State Department of Water Resources update the State Water Plan every five years. The 2013 update is the most current review and included (but is not limited to) the following conclusions:

- The total number of wells completed in California between 1977 and 2010 is approximately 432,469 and ranges from a high of 108,346 wells for the Sacramento River Hydrologic Region to a low of 4,069 wells for the North Lahontan Hydrologic Region.
- Based on the June 2014 California Statewide Groundwater Elevation Monitoring (CASGEM) basin prioritization for California's 515 groundwater basins, 43 basins are identified as high priority, 84 basins as medium priority, 27 basins as low priority, and the remaining 361 basins as very low priority.
- The 127 basins designated as high or medium priority account for 96 percent of the average annual statewide groundwater use and 88 percent of the 2010 population overlying the groundwater basin area.
- Depth-to-groundwater contours were developed for the unconfined aquifer system in the Central Valley. In the Sacramento Valley, the spring 2010 groundwater depths range from less than 10 feet below ground surface (bgs) to approximately 50 feet bgs, with local areas showing maximum depths of as much as 160 feet bgs.

- The most prevalent groundwater contaminants affecting California's community drinking water wells are arsenic, nitrate, gross alpha activity, and perchlorate.

California Government Code 65302 (d): The General Plan must contain a Conservation Element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, river and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. That portion of the conservation element including waters shall be developed in coordination with any County-wide water agency and with all district and city agencies which have developed, served, controlled, or conserved water for any purpose for the County or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5 if that information has been submitted by the water agency to the city or County. The conservation element may also cover:

- The reclamation of land and waters.
- Prevention and control of the pollution of streams and other waters.
- Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.
- Prevention, control, and correction of the erosion of soils, beaches, and shores.
- Protection of watersheds.
- The location, quantity and quality of the rock, sand and gravel resources.
- Flood control.

Sustainable Groundwater Management Act: On September 16, 2014, Governor Edmund G. Brown Jr. signed historic legislation to strengthen local management and monitoring of groundwater basins most critical to the state's water needs. The three bills, SB 1168 (Pavley) SB 1319 (Pavley) and AB 1739 (Dickinson) together makeup the Sustainable Groundwater Management Act. The Sustainable Groundwater Management Act comprehensively reforms groundwater management in California. The intent of the Act is to place management at the local level, although the state may intervene to manage basins when local agencies fail to take appropriate responsibility. The Act provides authority for local agency management of groundwater and requires creation of groundwater sustainability agencies and implementation of plans to achieve groundwater sustainability within basins of high and medium priority.

3.10.3 Impact Assessment/Environmental Consequences:

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

Most of the City's public water supply comes from the Feather River. The water is pumped from the river to the Water Treatment Plant located in northern Yuba City. The plant also sometimes utilizes a groundwater well to supplement surface water supplies due to recent drought conditions. Since the new residences will only receive water through the City system, it is unlikely that the Project could impact the water quality in the City system.

All of the wastewater generated by the 82 new residences will flow into the City wastewater treatment facility which is in compliance with all state water discharge standards. The wastewater from the new residences is not expected to generate any unique type of waste that would cause the system to become out of compliance with state standards.

All storm water runoff associated with the Project will ultimately drain into the Feather River. The water quality of the stormwater runoff is addressed through General Plan Implementing Policies 8.5-I-1 through 8.5-I-10 which require a wide range of developer and City actions involving coordination with the State Regional Water Quality Control Board, protecting waterways, and following Yuba City's adopted Best Management Practices for new construction.

With the level of oversight on the City's water supply, and enforcement of Best Management Practices at construction sites, there will not be significant impacts on the City's water and waste-water systems or storm water drainage system.

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

All of the new residences that will result from construction of this subdivision will be connected to the City's water system. While consumption of City water will increase with the Project, very little, if any, groundwater will be utilized as the City primarily utilizes surface water supplies in its system.

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?

See iii. Below.

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

See iii. Below.

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?

There will be an increased amount of stormwater drainage caused by new impermeable surfaces created by this development, which will ultimately drain into the Feather River. The Project will be required to construct the local collection facilities and pay the appropriate fees for its fair share of improvement to the existing drainage system that it will be connected too. Also, as noted above, all new construction must involve use of Best Management Practices. Assuming all required standards are met there is not expected to be any significant impacts from additional storm water drainage from the site.

iv. impede or redirect flood flows?

According to the Federal Emergency Management Agency this portion of the City is outside of the 100-year flood plain. This is due to the existing levee system that contains seasonally high-water flows from the nearby Feather River from flooding areas outside of the levee system. Additional construction within the City that is outside of the levee system does not impact the levee system and therefore does not increase, impede, or otherwise have any effect on the highwater flows within the levee system. Therefore, there is no impact on the high-water flows within the Feather River levee system.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

This portion of the City is outside of the 100-year flood plain. The City is not close to the ocean or any large lakes so a seiche is unlikely to happen in or near the City. The City is located inland from the Pacific Ocean, so people or structures in the City would not be exposed to inundation by tsunami. Mudflows and landslides are unlikely to happen due to the relatively flat topography within the Project area. Thus, it is unlikely that the Project site would be subject to inundation by a seiche, tsunami, mudflow or landslide. Therefore, there is no potential for significant impacts from any of these types of events.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As noted above, all new construction is required to utilize Best Management Practices. Assuming all required standards are met, water quality of runoff water from the Project will not create any significant impacts. The City primarily utilizes surface water for its water source so there will be no significant impacts on groundwater.

3.11 Land Use and Planning

Table 3:11: Land Use and Planning					
Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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

3.11.1 Environmental Setting/Affected Environment

The Project will be on an underdeveloped 15.84-acre property that is abutted on one side by existing single- family residences. It is expected that both the north and south sides of the property will also at some point be built out with residences. The east side of the property is bordered by Onstott Frontage Road and State Route 99. The property is within the Butte Vista Neighborhood Plan.

3.11.2 Federal Regulatory Setting

There are no federal or state regulations pertaining to land use and planning relevant to the proposed Project.

3.11.3 Local Regulatory Setting

Yuba City General Plan, Land Use Element: The Land Use Element of the General Plan establishes guidance for the ultimate pattern of growth in the City's Sphere of Influence. It provides direction regarding how lands are to be used, where growth will occur, the density/intensity and physical form of that growth, and key design considerations.

3.11.4 Impact Assessment/Environmental Consequences:

a) Physically divide an established community?

See b) below.

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?

This subdivision will not physically divide an established community. The proposed subdivision is located within the Butte Vista Neighborhood plan. The buildout of this property as proposed will be consistent with that plan. As such, rather than dividing an established community, this subdivision will continue the planned street pattern and will fit with the neighboring residential development. Therefore, as the Project is consistent with the General Plan, zoning, and all other City development standards there will be no impacts due to land use or other standards not being consistent with local plans or programs.

3.12 Mineral Resources

Table 3-12:: Mineral Resources				
Would the project:	Potentially Significant Impact	Less than Significant with 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

3.12.1 Federal Regulatory Setting

There are no federal regulations pertaining to mineral resources relevant to the proposed Project.

3.12.2 State Regulatory Setting

California Surface Mining and Reclamation Act of 1975: Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:

- Production and conservation of minerals is encouraged;

- Environmental effects are prevented or minimized;
- Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment;
- Mined lands are reclaimed to a useable condition once mining is completed; and
- Hazards to public safety both now and in the future are eliminated.

Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California.

The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:

- MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources.
- MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located.
- MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration.
- MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance.

SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.

3.12.3 Impact Assessment/Environmental Consequences:

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?

See b) below.

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?

The Yuba City General Plan does not recognize any mineral resource zone within the City limits, and no mineral extraction facilities currently exist within the City. Because of this the property contains no known mineral resources and there is little opportunity for mineral resource extraction. Additionally, the site has nearby residential uses, which generally is considered incompatible with mineral extraction facilities. As such the Project will not have an impact on mineral resources.

3.13 Noise

Table 3.13: Noise				
Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 ground borne vibration or ground borne 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

3.13.1 Environmental Setting/Affected Environment for Noise

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) which is measured in decibels (dB), with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such

as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts.

Specific to this Project, the property is affected by the neighboring State Route 99, from which the noise will impact the new residences. However, this impact is not further discussed in this document as it is not a CEQA issue. But it is an overall issue in regard to General Plan policies regarding acceptable noise levels for sensitive uses within the City, such as single-family residences. As such, this issue is addressed further in the Planning Commission staff report. There was a noise study prepared for the earlier subdivision across SR 99 that, due to the similar situation, is utilized for this Project (Bollard & Brannan, March 31, 2004, Environmental Noise Assessment, Canterbury Residential Development).

3.13.2 Environmental Setting/Affected Environment for Groundbourne Vibration

Vibration is the periodic oscillation of a medium or object. Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground borne vibrations may be described by amplitude and frequency. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS), as in RMS vibration velocity. The PPV and RMS (VbA) vibration velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal and is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings.

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. As it takes some time for the human body to respond to vibration signals, it is more prudent to use vibration velocity when measuring human response. The typical background vibration velocity level in residential areas is approximately 50 VdB. Groundborne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.

3.13.3 Federal Regulatory Setting

Federal Vibration Policies: The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 90 VdB without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 75 VdB.

3.13.4 State Regulatory Setting

California Noise Control Act: The California Noise Control Act was enacted in 1973 (Health and Safety Code §46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff would work with

the Department of Resources Office of Planning and Research (OPR) to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.

Title 24 – Sound Transmission Control: Title 24 of the California Code of Regulations (CCR) codifies Sound Transmission Control requirements, which establishes uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 24 states that interior noise levels attributable to exterior sources shall not exceed 45 dBA CNEL in any habitable room of new dwellings Title 24, Part 2 requires an acoustical report that demonstrates the achievements of the required 45 dBA CNEL. Dwellings are designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application.

3.13.5 Local Regulatory Setting

The **City of Yuba City General Plan** presents the vision for the future of Yuba City and outlines several guiding policies and policies relevant to noise.

The following goals and policies from the City of Yuba City General Plan are relevant to noise.

Guiding Policies

- 9.1-G-1: Strive to achieve an acceptable noise environment for the present and future residences of Yuba City.
- 9.1-G-2: Incorporate noise considerations into land use planning decisions and guide the location and design of transportation facilities to minimize the effects of noise on adjacent land uses.

Implementing Policies

- 9.1-I-1: Require a noise study and mitigation for all projects that have noise exposure greater than “normally acceptable” levels. Noise mitigation measures include, but are not limited to, the following actions:
    - Screen and control noise sources, such as parking and loading facilities, outdoor activities, and mechanical equipment,
    - Increase setbacks for noise sources from adjacent dwellings,
    - Retain fences, walls, and landscaping that serve as noise buffers,
    - Use soundproofing materials and double-glazed windows, and
    - Control hours of operation, including deliveries and trash pickup, to minimize noise impacts.
- 9.1-I-3: In making a determination of impact under the California Environmental Quality Act (CEQA), consider an increase of four or more dBA to be "significant" if the resulting noise level would exceed that described as normally acceptable for the affected land use in Figure 5.
- 9.1-I-4: Protect especially sensitive uses, including schools, hospitals, and senior care facilities, from excessive noise, by enforcing “normally acceptable” noise level standards for these uses.

- 9.1-I-5: Discourage the use of sound walls. As a last resort, construct sound walls along highways and arterials when compatible with aesthetic concerns and neighborhood character. This would be a developer responsibility.
- 9.1-I-6: Require new noise sources to use best available control technology (BACT) to minimize noise from all sources.
- 9.1-I-7: Minimize vehicular and stationary noise sources and noise emanating from temporary activities, such as construction.

Table 1: Noise Exposure

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE - Ldn or CNEL (dBA)													
	50		55		60		65		70		75		80	
Residential – Low Density Single Family, Duplex, Mobile Home														
Residential – Multi-Family														
Transient Lodging – Motel/Hotel														
Schools, Libraries, Churches, Hospitals, Nursing Homes														
Auditorium, Concert Hall, Amphitheaters														
Sports Arena, Outdoor Spectator Sports														
Playgrounds, Neighborhood Parks														
Golf Courses, Riding Stables, Water Recreation, Cemeteries														
Office Buildings, Business, Commercial and Professional														
Industrial, Manufacturing, Utilities, Agriculture														

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable: New construction or development generally should not be undertaken.
Source: State of California, Governor's Office of Planning and Research, 2003. General Plan Guidelines.	

City of Yuba City Municipal Code: Title 4, Chapter 17, Section 4-17.10(e) of the Yuba City Municipal Code prohibits the operation of noise-generating construction equipment before 6:00 a.m. or after 9:00 p.m. daily, except Sunday and State or federal holidays when the prohibited time is before 8:00 a.m. and after 9:00 p.m.

3.13.6 Impact Assessment/Environmental Consequences:

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 established in the local general plan or noise ordinance, or applicable standards of other agencies?

A temporary noise increase will occur during construction of the subdivision followed by the construction of the single-family residences, all of which will primarily occur during daylight hours, Monday through Saturday. Noise from construction activities would contribute to the noise environment in the immediate Project vicinity. This could have an impact on existing nearby residences. Activities involved in construction could generate maximum noise levels, as indicated in Table 2, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise control. However, due to the limited duration of the construction activities, that the construction will occur during the less sensitive daylight hours, and considering the distance between much of the construction area and the existing residences, the noise effects from this activity are expected to be less than significant.

Table 2: Noise Levels of Typical Construction Equipment

Type of Equipment [(1)]	dBA at 50 ft.	
	Without Feasible Noise Control [(2)]	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

[(1)] US Environmental Protection Agency. "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances." Figure IV.H-4. 1971.
[(2)] Feasible noise control includes the use of intake mufflers, exhaust mufflers and engine shrouds operating in accordance with manufacturers specifications

Once constructed the single--family residences are generally not considered to be significant noise generators. Also, the use of masonry perimeter walls will further reduce any noise impacts. Therefore, there are not expected in any significant way to raise the ambient noise levels in the surrounding residential neighborhood. In other words, adding new residences to a residential area is not expected to create any significant noise impacts.

Short-term noise impacts (and possibly some ground borne vibrations if site compaction is required prior to construction) can be expected resulting from site grading and construction activities. Construction-related noise impacts will be less than significant because adherence to City construction standards is required. These standards limit the hours of operation for construction and use of heavy machinery to daytime hours. Also, the construction noise is of limited duration, further limiting any adverse impacts.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Table 3 describes the typical construction equipment vibration levels.

Table 3: Typical Construction Vibration Levels

Equipment [1]	VdB at 25 ft2
Small Bulldozer	58
Vibratory Roller	94
Jackhammer	79
Loaded Trucks	86

[1] *US Environmental Protection Agency. "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances." Figure IV.H-4. 1971.*

Vibration levels of construction equipment in Table 3 are at a distance of 25 feet from the equipment. As noted above, construction activities are limited to daylight hours. Infrequent construction-related vibrations would be short-term and temporary, and operation of heavy-duty construction equipment would be intermittent throughout the day during construction. Therefore, with the short duration of grading activities associated with the project, the approximate reduction of 6 VdB for every doubling of distance from the source, and consideration of the distance to the nearest existing residences, the temporary impact to any uses in the vicinity of the project would be less than significant.

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 Project is not located within the Sutter County Airport and the Yuba County Airport nor is it within two miles of any other public use airport. Since the Project is not impacted by airport noise, there should be no potential for any impacts from any airport onto this site.

3.14 Population and Housing

Table 3-14: Population and Housing				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

3.14.1 Environmental Setting/Affected Environment

The flat, mostly vacant property is abutted on the west sides by one-story single-family residential uses. The north side is a prune orchard and the south side is an open field, both of which will likely be developed into single-family homes as they are currently designated by the City for that use. Along the east side is Onstott Frontage Road and State Route 99.

3.14.2 Federal Regulatory Setting

There are no federal regulations, plans, programs, or guidelines associated with population or housing that are applicable to the proposed Project.

3.14.3 State Regulatory Setting

California law (Government Code Section 65580, et seq.) requires cities and counties to include a housing element as a part of their general plan to address housing conditions and needs in the community. Housing elements are prepared approximately every eight years, following timetables set forth in the law. The housing element must identify and analyze existing and projected housing needs and "make adequate provision for the existing and projected needs of all economic segments of the community," among other requirements. The City recently adopted its current Housing Element.

3.14.4 Regional Regulatory Setting

State law mandates that all cities and counties offer a portion of housing to accommodate the increasing needs of regional population growth. The statewide housing demand is determined by the California Department of Housing and Community Development (HCD), while local governments and councils of governments decide and manage their specific regional and jurisdictional housing needs and develop a regional housing needs assessment (RHNA).

In the greater Sacramento region, which includes the City of Yuba City, SACOG has the responsibility of developing and approving an RHNA and a Regional Housing Needs Plan (RHNP) every eight years

(Government Code, Section 65580 et seq.). This document has a central role of distributing the allocation of housing for every county and city in the SACOG region. Housing needs are assessed for very low income, low income, moderate income, and above moderate households.

As described above, SACOG is the association of local governments that includes Yuba City, along with other jurisdictions comprising the six counties in the greater Sacramento region. In addition to preparing the Metropolitan Transportation Plan and Sustainable Communities Strategy for the region, SACOG approves the distribution of affordable housing in the region through its RHNP. SACOG also assists in planning for transit, bicycle networks, clean air and serves as the Airport Land Use Commission for the region.

3.14.5 Impact Assessment/Environmental Consequences:

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 proposed Project will create 82 single-family residences. Residential development has been planned for this property since at least the adoption of the Buttes Vista Neighborhood Plan in 1999. Within the BVNP only this site and properties to the north and south remain undeveloped. Previous developments extended City services to this area. As this is mostly an infill project that has been planned for many years, this Project will not induce unplanned growth to the area. As a result, the impacts on population and housing will be less than significant.

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

The proposed Project will result in the demolition of an existing residence. This loss is considered to be a less than significant impact as it would be off-set by the development of 82 single-family residences.

3.15 Public Services

Table 3.15: Public Services				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government 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	

3.15.1 Environmental Setting/Affected Environment

Law enforcement for the proposed new housing will be provided by the Yuba City Police Department. Fire protection is provided by the Yuba City Fire Department. Nearby parks and other urban services that will be utilized by new residents, including streets, water, and sewer. Stormwater drainage is also provided by Yuba City.

3.15.2 Federal Regulatory Setting

National Fire Protection Association: The National Fire Protection Association (NFPA) is an international nonprofit organization that provides consensus codes and standards, research, training, and education on fire prevention and public safety. The NFPA develops, publishes, and disseminates more than 300 such codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA publishes the NFPA 1, Uniform Fire Code, which provides requirements to establish a reasonable level of fire safety and property protection in new and existing buildings.

3.15.3 State Regulatory Setting

California Fire Code and Building Code: The 2013 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to fire fighters and emergency responders during emergency operations. The provision of the Fire Code includes regulations regarding fire-resistance rated construction, fire protection systems such as alarm and sprinkler systems, fire service features such as fire

apparatus access roads, fire safety during construction and demolition, and wildland urban interface areas.

California Health and Safety Code (HSC): State fire regulations are set forth in Sections 13000 et seq. of the California HSC, which includes regulations for building standards (as set forth in the CBC), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, childcare facility standards, and fire suppression training.

California Master Mutual Aid Agreement: The California Master Mutual Aid Agreement is a framework agreement between the State of California and local governments for aid and assistance by the interchange of services, facilities, and equipment, including but not limited to fire, police, medical and health, communication, and transportation services and facilities to cope with the problems of emergency rescue, relief, evacuation, rehabilitation, and reconstruction.

3.15.4 Impact Assessment/Environmental Consequences:

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 government 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 Fire Department reviewed the proposal and did not express concerns. Since all new housing development pays development impact fees intended to offset the cost of additional fire facilities and equipment costs resulting from this growth, the impacts on fire services will be less than significant.

ii. Police Protection: The Police Department reviewed the proposal and did not express concerns. Since all new housing development pays impact fees that intended to offset the cost of additional police facilities and equipment resulting from this growth the impacts on police services will be less than significant.

iii. Schools: New residences will pay the Yuba City Unified School District adopted school impact fees that are intended to provide the new resident's fair share for expanded or new educational facilities needed to accommodate this new growth. Therefore, the impact on schools will be less than significant.

iv. Parks: The City charges a park impact fee for each new residence that is utilized to purchase parkland and construct new parks. Therefore, the impact on parks from this project will be less than significant.

v. Other Public Facilities: The Project will be connected to City water and wastewater systems. Each new residential connection to those systems must pay connection fees that are utilized for expansion of the respective treatment plants. The City also collects impact fees for County services that are provided to the new residences, such as the library system and justice system.

Accordingly, the Project will have a less than significant impact regarding the provision of public services.

3.16 Recreation

Table 3-16: Recreation				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

3.16.1 Environmental Setting/Affected Environment

Yuba City has 22 City-owned parks and recreational areas, managed by the City's Parks and Recreation Department. This consists of four community parks, 15 neighborhood parks, and three passive or mini parks.

3.16.2 Federal Regulatory Setting

There are no federal regulations regarding parks and open space that are applicable to the proposed Project.

3.16.3 State Regulatory Setting

State Public Park Preservation Act: The primary instrument for protecting and preserving parkland is the Public Park Preservation Act of 1971. Under the PRC section 5400-5409, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

Quimby Act: California Government Code Section 66477, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density and housing type, land cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may be used for developing new or rehabilitating existing park or recreational facilities.

3.16.4 Local Regulatory Setting

The Yuba City General Plan and the City's Parks Master Plan provide a goal of providing 5 acres of public parkland per 1,000 residents, while it also requires 1 acre of Neighborhood Park for every 1,000 residents. The City's development impact fee program collects fees for new development which is allocated for the acquisition and development of open space in the City.

3.16.5 Impact Assessment/Environmental Consequences:

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 82 new residences that will be constructed as a result of this subdivision will incrementally increase the use of City parks. However, development impact fees for parks and recreation facilities will be paid for each new residence. As a result of the development agreement that is proposed, the Project will also be paying additional fees for neighborhood park improvements. These fees are utilized for new or expanding City parks and will mitigate any incremental impacts on recreational facilities. Therefore, the impact will be less than significant.

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 Project does not propose any recreational facilities. Instead, the development will pay recreational facility impact fees which will be used by the City at a location of its discretion. As such there will be no quantifiable impacts from construction of any recreation facility.

3.17 Transportation/Traffic

Table 3-17: Transportation Recreation				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

3.17.1 Federal Regulatory Setting

Federal Highway Administration: FHWA is the agency of the U.S. Department of Transportation (DOT) responsible for the Federally funded roadway system, including the interstate highway network and portions of the primary State highway network. FHWA funding is provided through the Safe, Accountable, Flexible, Efficiency Transportation Equity Act: A Legacy for Users (SAFETEA-LU). SAFETEA- LU can be used to fund local transportation improvement projects, such as projects to improve the efficiency of existing roadways, traffic signal coordination, bikeways, and transit system upgrades.

Several federal regulations govern transportation issues. They include:

- Title 49, CFR, Sections 171-177 (49 CFR 171-177), governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles.
- Title 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations, address safety considerations for the transport of goods, materials, and substances over public highways.
-

3.17.2. State Regulatory Setting

The measurement of the impacts of a project's traffic is set by the CEQA Guidelines. Section 15064.3 of the Guidelines states that vehicle miles traveled (VMT) is the most appropriate measure of transportation impacts. VMT is a metric which refers to the amount of distance of automobile traffic that is generated by a project. Per the Guidelines "Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact." "Projects that decrease vehicle miles traveled compared to existing conditions should be presumed to have a less than significant environmental impact."

The CEQA Guidelines also states that the lead agency (Yuba City) may "choose the most appropriate methodology to evaluate a project's vehicle miles traveled …". As this is a new form of calculating significant traffic events, the City has not yet determined its own methodology to calculate levels of significance for VMT. Until that methodology is determined, for purposes of this initial study the information provided by the Sacramento Council of Governments (SACOG) and the CA Office of Planning and Research is utilized. A review of these studies indicates several factors that may be utilized for determining levels of significance. One is that if the project will generate less than 110 vehicle trips per day, it is assumed that with the small size of the project, the impact is less than significant. A second criteria is that for a project, on a per capita or per employee basis, the VMT will be at least 15 percent below that of existing development is a reasonable threshold for determining significance.

As this is a new methodology, future projects may utilize different criterion as they become available.

3.17.3. Local Regulatory Setting

The Yuba City General Plan Transportation Element has policies regulating all mode of transportation and related activities. Specifically, there are Implementing Policies regarding Traffic Levels of Service that are relevant to project review process:

5.2-I-12 Develop and manage the roadway system to obtain LOS D or better for all major roadways and intersections in the City. This policy does not extend to residential streets (i.e., streets with direct driveway access to homes) or bridges across the Feather River nor does the policy apply to state highways and their intersections, where Caltrans policies apply. Exceptions to LOS policy may be allowed by the City Council in areas, such as downtown, where allowing a lower LOS would result in clear public benefits. Specific exceptions granted by the Council shall be added to the list of exceptions below:

- SR 20 (SR 99 to Feather River Bridge) – LOS F is acceptable;
- SR 20 (Feather River Bridge) – LOS F is acceptable;
- Bridge Street (Twin Bridges across the Feather River) – LOS F is acceptable;
- Lincoln Road (New bridge across the Feather River) - LOS F is acceptable.

No new development will be approved unless it can be shown that required level of service can be maintained on the affected roadways.

5.2-I-13 Develop and manage residential streets (i.e., streets with direct driveway access to homes) to limit average daily traffic volumes to 2,500 or less and 85th percentile speeds to 25 miles per hour or less.

5.2-I-14 Require traffic impact studies for all proposed new developments that will generate significant amounts of traffic.

Specific thresholds will be based on location and project type, and exceptions may be granted where traffic studies have been completed for adjacent development.

5.2-I-15 Improve intersections as needed to maintain LOS standards and safety on major arterials.

3.17.4. Impact Assessment/Environmental Consequences:

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

A traffic study was prepared for this Project (KD Anderson & Associates, Inc., March 16, 2023, Focused Traffic Impact Analysis for Johnson Ranch Subdivision – Appendix D) that analyzed the traffic impacts from this Project onto three nearby intersections. For the Pease Road/West Onstott Frontage Road intersection and the Stabler Lane/Butte Vista Lane Roundabout, the added traffic will not adversely impact the level of service at those intersections. The levels of service at those intersections are within acceptable levels and will remain so after the subdivision is completed.

Per the study, the Onstott/Queens intersection is and will remain inconsistent with General Plan Policy 5.2-1-12 that requires intersections on General Plan streets – Queens Avenue in this case at its intersection with Peachtree Lane - be within Level of Service (LOS) D or better. The study concludes that the southbound left turn lane on Peachtree Lane is presently at LOS E, and the added traffic from this Project it will remain LOS E, but slightly longer queuing time. A mitigation measure is provided that will bring the Project into conformance with Policy 5.2-1-12. The policy requires that the developer pay a fair-share of its cost for the construction of a signal at the Queens Avenue/Peachtree Lane intersection (approx. 1.4 percent), and that signage be posted for the southbound Peachtree travelers that left turns are not permitted during peak traffic hours of 4 P.M. to 6P.M.

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

This CEQA section describes specific considerations for evaluating a project's transportation impacts in terms of Vehicle Miles Traveled (VMT). SACOG, in "Technical Advisory: On Evaluating Transportation Impacts in CEQA" provides two criteria for which if the project meets either of them, the traffic impacts are considered less than significant. One criterion is that the project generates less than 110 vehicle trips per day is considered to be less than a significant impact. The Project will exceed this criterion, so it is not further considered in this review. The second criterion is that if a project, on a per capita or per employee basis, the VMT will be at least 15 percent below that of existing development is a reasonable threshold for determining significance. SACOG also has released a draft document (SB 743 regional screening maps) that provides mapping data indicating the average miles traveled for different areas within and around Yuba City. The range of the categories are:

- Less than 50% of regional average
- 50-85% of regional average
- 85-100% of the regional average
- 115-150% of the regional average
- More than 150% of the regional average

Per the SACOG maps, for this area under consideration, the estimated average vehicle distance traveled per residence is in the 50-85% range of the norm. In other words, per the SACOG regional screening maps, this subdivision is located in an area that meets the 15 percent vehicle trip reduction criteria. Thus, the transportation impacts from VMT for this subdivision are within CEQA Guidelines Section 15063.4(b) and it follows that the traffic impacts generated by this Project are considered to be less than significant.

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 traffic study discussed in part a) above did not identify any road design hazards or dangerous intersection designs with the Pease Road/West Onstott Road intersection or at the Stabler Lane/ Butte Vista Roundabout. The Public Works Department review of the Project did not indicate that there are any street design issues on those streets. Therefore, any increase in street hazards generated by this Project are less than significant.

d) Result in inadequate emergency access?

The Fire Department and Police Departments have reviewed the Project plans. As they did not express concerns about emergency access to the property, the impacts on emergency access would be less than significant.

Transportation and Traffic Mitigation 1:

Prior to recordation of the final map, the proposed development shall pay its fair share contribution for future traffic signal improvements at the intersection of Queens Avenue and Peach Tree lane. The fair share has been determined to be 1.4% of $300,000.

Prior to Improvement Plans, the Project shall install signage and/or striping improvements along Peach Tree Lane to restrict left turn movements during the hours of 4 pm and 6 pm, or as determined by the Public Works Director.

3.18 Tribal Cultural Resources

Table 3-18: Tribal Cultural Resources				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause of 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:				
a) 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), or			X	
b) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

3.18.1 Environmental Setting/Affected Environment

This section describes the affected environment and regulatory setting for Tribal Cultural Resources (TCRs). The following analysis of the potential environmental impacts related to TCRs is derived primarily from the following sources:

- Sean Jenson, January 2, 2023, Cultural Resources Inventory Survey – Johnson Ranch Estates Subdivision.
- Ethnographic overview of the Nisenan culture
- Environmental Impact Report for the City of Yuba City General Plan (2004)
- Consultation record with California Native American tribes under Assembly Bill 52.

3.18.2 Federal Regulatory Setting

National Historic Preservation Act of 1966 (as amended), Section 106: The significance of cultural resources is evaluated under the criteria for inclusion in the National Register of Historic Places (NRHP), authorized under the National Historic Preservation Act of 1966, as amended. The criteria defined in 36 CFR 60.4 are as follows:

The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- That are associated with events that have made a significant contribution to the broad patterns of our history; or
- That are associated with the lives of persons significant in our past; or
- That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important to prehistory or history.

Sites listed or eligible for listing on the NRHP are considered to be historic properties. Sites younger than 50 years, unless of exceptional importance, are not eligible for listing in the NRHP.

3.18.3 State Regulatory Setting

Assembly Bill 52: Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Section 21074(a) of the Public Resource Code defines TCRs for the purpose of CEQA as:

1) Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

    a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or

    b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or

    c. 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a TCR may also require additional consideration as a Historical Resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their TCRs and heritage, AB 52 requires that CEQA lead agencies initiate consultation with tribes at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is required to develop appropriate avoidance, impact minimization, and

mitigation measures.

3.18.4 Cultural Setting

The Nisenan (also referred to as Southern Maidu) inhabited the General Plan area prior to large-scale European and Euroamerican settlement of the surrounding area. Nisenan territory comprised the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River. The Nisenan, together with the Maidu and Konkow, their northern neighbors, form the Maiduan language family of the Penutian linguistic stock (Shipley 1978:89). Kroeber (1976:392) noted three dialects: Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan. Although cultural descriptions of this group in the English language are known from as early as 1849, most of our current cultural knowledge comes from various anthropologists in the early part of the 20th century (Levy 1978:413; Wilson and Towne 1978:397).

The basic subsistence strategy of the Nisenan was seasonally mobile hunting and gathering. Acorns, the primary staple of the Nisenan diet, were gathered in the valley along with seeds, buckeye, salmon, insects, and a wide variety of other plants and animals. During the warmer months, people moved to mountainous areas to hunt and collect food resources, such as pine nuts. Bedrock and portable mortars and pestles were used to process acorns. Nisenan settlement patterns were oriented to major river drainages and tributaries. In the foothills and lower Sierra Nevada, Nisenan located their villages in large flats or ridges near major streams. These villages tended to be smaller than the villages in the valley. (Wilson and Towne 1978:389–390.)

Trade provided other valuable resources that were not normally available in the Nisenan environment. The Valley Nisenan received black acorns, pine nuts, manzanita berries, skins, bows, and bow wood from the Hill Nisenan to their east, in exchange for fish, roots, grasses, shells, beads, salt, and feathers (Wilson and Towne 1978). To obtain, process, and utilize these material resources, the Nisenan had an array of tools to assist them. Wooden digging sticks, poles for shaking acorns loose, and baskets of primarily willow and redbud were used to gather vegetal resources. Stone mortars and pestles were used to process many of the vegetal foods; baskets, heated stones, and wooden stirring sticks were used for cooking. Basalt and obsidian were primary stone materials used for making knives, arrow and spear points, clubs, arrow straighteners, and scrapers. (Wilson and Towne 1978.)

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually located on low rises along major watercourses. Village size ranged from three houses to 40 or 50 houses. Larger villages often had semi-subterranean dance houses that were covered in earth and tule or brush, and had a central smoke hole at the top and an entrance that faced east (Wilson and Towne 1978:388). Early Nisenan contact with Europeans appears to have been limited to the southern reaches of their territory. Spanish expeditions intruded into Nisenan territory in the early 1800s. In the two or three years following the gold discovery, Nisenan territory was overrun by immigrants from all over the world. Gold seekers and the settlements that sprang up to support them were nearly fatal to the native inhabitants. Survivors worked as wage laborers and domestic help and lived on the edges of foothill towns. Despite severe depredations, descendants of the Nisenan still live in their original land area and maintain and pass on their cultural identity.

3.18.5 Summary of Native American Consultation

AB 52 requires lead agencies to analyze Project impacts on “tribal cultural resources” separately from archaeological resources (PRC § 21074; 21083.09). AB 52 also requires lead agencies to engage in

additional consultation procedures with respect to California Native American tribes (PRC § 21080.3.1, 21080.3.2, 21082.3). In response to AB 52, the City supplied the following Native American tribes with a Project description and map of the proposed Project area and a request for comments:

- United Auburn Indian Community of the Auburn Rancheria
- Yocha Dehe Wintun Nation
- Estom Yomeka Maidu Tribe of the Enterprise Rancheria
- Mechoopda Indian Tribe
- Pakan'yani Maidu of Strawberry Valley
- Mooretown Rancheria of Maidu Indians
- Ione Band of Miwok Indians

3.18.6 Thresholds of Significance

AB 52 established that a substantial adverse change to a TCR has a significant effect on the environment. The thresholds of significance for impacts to TCRs are as follows:

Would the Project cause a substantial adverse change to a TCR, defined in Section 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a Native American tribe that are:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources;
- Included in a local register of historical resources as defined in subdivision k of Section 5010.1; and/or
- Determined by the City to be significant, as supported by substantial evidence, including:
    - A cultural landscape with a geographically defined boundary;
    - A historical resource as described in Section 21084.1 (either eligible for or listed on the California Register of Historical Resources or listed on a local registry);
    - A unique archaeological resource as defined in Section 21083.2; and/or
    - A non-unique archaeological resource as defined in Section 21083.2.

In assessing substantial adverse change, the City must determine whether or not the Project will adversely affect the qualities of the resource that convey its significance. The qualities are expressed through integrity. Integrity of a resource is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association [CCR Title 14, Section 4852(c)]. Impacts are significant if the resource is demolished or destroyed or if the characteristics that made the resource eligible are materially impaired [CCR Title 14, Section 15064.5(a)]. Accordingly, impacts to a TCR would likely be significant if the Project negatively affects the qualities of integrity that made it significant in the first place. In making this determination, the City need only address the aspects of integrity that are important to the TCR's significance.

3.18.7 Impact Assessment/Environmental Consequences:

a) 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).

The cultural study prepared for this subdivision (Sean Jenson, January 2, 2023, Cultural Resources Inventory Survey – Johnson Ranch Estates Subdivision - Appendix B), reviewed the existing residence and garage/shop at 2726 West Onstott Road that will be removed as part of this development. They were constructed in 1968. The study concluded these buildings were not historically important and that that there are no historical resources or unique archaeological resources located on the site. Therefore, the potential significant impacts on any historical resources are less than significant.

b) 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The City solicited consultation with culturally affiliated California Native American tribes (regarding the proposed project in accordance with AB 52) to which no tribes responded. No known TCRs have been identified (as defined in Section 21074) within the proposed project area. Given the level of previous disturbance within the Project area, it is not expected that any TCRs would remain. However, during grading and excavation activities, there is a potential to encounter native soils, which may contain undiscovered TCRs. In the unlikely event resources are discovered during ground disturbing activities that are associated with Native American culture, compliance with the TCR Mitigation Measure provided below would reduce the potential impacts on tribal cultural resources to a less than significant level.

The cultural study prepared for this subdivision concluded that there was no evidence of cultural resources remaining on the property. The study also recommended a mitigation measure be applied that addressed cultural resources that may be found during Project construction.

3.18.8 Tribal Cultural Mitigation Measure

Tribal Cultural Resources Mitigation 1: Unanticipated Discoveries: If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American Tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC 21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.

Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless approved by the Tribe.

The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including but limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil.

Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA, including AB 523 has been satisfied.

3.19 Utilities and Service Systems

Table 3-19: Utilities and Service Systems				
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm 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	

3.19.1 Environmental Setting/Affected Environment

Water: The water supply source for the City is surface water from the Feather River with use of a backup groundwater well. The City of Yuba City is a public water agency with approximately 18,045 connections. City policy only allows areas within the City limits to be served by the surface water system.

Wastewater: Yuba City owns, operates, and maintains the wastewater collection, treatment, and disposal system that provides sewer service to approximately 60,000 residents and numerous businesses. The

remainder of the residents and businesses in the Yuba City Sphere of Influence (SOI) are currently serviced by private septic systems. In the early 1970s, the City's original sewage treatment plant was abandoned, and the current Wastewater Treatment Facility (WWTF) was constructed.

Reuse and Recycling: Solid waste generated in Yuba City is collected by Recology Yuba-Sutter. Recology offers residential, commercial, industrial, electronic, and hazardous waste collection, processing, recycling, and disposal, as well as construction and demolition waste processing, diversion, and transfer to a disposal facility. The City's municipal solid waste is delivered to the Ostrom Road Landfill; a State-permitted solid waste facility that provides a full range of transfer and diversion services. As of June 2021, the Recology Ostrom Road Landfill Remaining Site Net Airspace is 33,764,000 cy; and has a remaining capacity of 21,297,000 tons; and remaining landfill service life is 53 years.

3.19.2 Federal Regulatory Setting

National Pollutant Discharge Elimination System: Discharge of treated wastewater to surface water(s) of the U.S., including wetlands, requires an NPDES permit. In California, the RWQCB administers the issuance of these federal permits. Obtaining a NPDES permit requires preparation of detailed information, including characterization of wastewater sources, treatment processes, and effluent quality. Any future development that exceeds one acre in size would be required to comply with NPDES criteria, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) and the inclusion of BMPs to control erosion and offsite transport of soils.

3.19.3 State Regulatory Setting

State Water Resources Control Board (SWRCB): Waste Discharge Requirements Program. State regulations pertaining to the treatment, storage, processing, or disposal of solid waste are found in Title 27, CCR, Section 20005 et seq. (hereafter Title 27). In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non-Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to Section 20230 of Title 27. Several programs are administered under the WDR Program, including the Sanitary Sewer Order and recycled water programs.

Department of Resources Recycling and Recovery (CalRecycle): The Department of Resources Recycling and Recovery (CalRecycle) is the State agency designated to oversee, manage, and track the 76 million tons of waste generated each year in California. CalRecycle develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

The Integrated Waste Management Act of 1989 (PRC 40050 et seq. or Assembly Bill (AB 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt a Source Reduction and Recycling Element to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25 percent by the year 1995 and 50 percent by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

Regional Water Quality Control Boards: The primary responsibility for the protection of water quality in California rests with the State Water Resources Control Board (State Board) and nine Regional Water Quality Control Boards. The State Board sets statewide policy for the implementation of state and federal laws and regulations. The Regional Boards adopt and implement Water Quality Control Plans (Basin Plans), which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities.

National Pollutant Discharge Elimination System (NPDES) Permit: As authorized by the Clean Water Act (CWA), the National Pollutant Discharge Elimination System (NPDES) Permit Program controls water pollution by regulating point sources that discharge pollutants into water of the United States. In California, it is the responsibility of Regional Water Quality Control Boards (RWQCB) to preserve and enhance the quality of the state's waters through the development of water quality control plans and the issuance of waste discharge requirements (WDRs). WDRs for discharges to surface waters also serve as NPDES permits.

California Department of Water Resources: The California Department of Water Resources (DWR) is a department within the California Resources Agency. The DWR is responsible for the State of California's management and regulation of water usage.

3.19.4 Impact Assessment/Environmental Consequences:

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

See b) below.

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

The Project will connect to both the City's water and wastewater treatment systems. The Yuba City Wastewater Treatment Facility (WWTF) has available capacity to accommodate new growth. The WWTF current permitted capacity is 10.5 mgd (annual average dry weather flow). The existing average influent flow to the WWTF is approximately 6 mgd. The remaining treatment capacity at the WWTF can be used to accommodate additional flow from the future developments.

The City's Water Treatment plant (WTP), for which its primary source of water is from the Feather River, also has adequate capacity to accommodate this project. The WTP uses two types of treatment systems, conventional and membrane treatment. The permitted capacity of the conventional WTP is 24 million gallons per day (mgd). The membrane treatment system has a permitted capacity of 12 mgd. Water produced from the conventional and the membrane treatment plants are blended for chlorine disinfection. Operating the conventional and membrane treatment facilities provides a total WTP capacity of 36 mgd. The City is permitted to draw 30 mgd from the Feather River. The current maximum day use is 26 mgd. The City also has an on-site water well at the water plant that supplements the surface water when needed.

Both facilities have adopted master plans to expand those plants to the extent that they will accommodate the overall growth of the City.

The ongoing expansions of those plants to accommodate growth beyond this project are funded by the connection fees paid by each new connection. Therefore, the impact on the water and wastewater treatment facilities will be less than significant.

Stormwater drainage in this area is provided by a Yuba City drainage system., as the stormwater will drain into the detention pond just south of this property. The system has been determined by the City to be able to accommodate the additional drainage. Further, the Project will be responsible to pay the fees to the City to mitigate the Project's fair-share towards future expansion of the system. Thus, the impacts on the stormwater drainage system will be less than significant.

The extension of electric power facilities, natural gas facilities and telecommunication facilities to this property are provided by private companies, none of which have voiced concerns over the extensions of their services to this Project site. With these considerations the impacts on these types of facilities are expected to 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?

See Parts a) and b), above.

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.

See e) below.

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

Recology Yuba-Sutter provides solid waste disposal for the City as well as for all of Sutter and Yuba Counties. There is adequate collection and landfill capacity to accommodate the proposed development.

3.20 Wildfire

Table 3-20: Wildfire				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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	

3.20.1 Environmental Setting/Affected Environment

Wildland fires are an annual hazard in Sutter County, particularly in the vicinity of the Sutter Buttes, and, to a lesser degree due to urbanized development, Yuba City. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers with temperatures often exceeding 100°F add to the County's fire hazard. Human activities are the major causes of wildland fires, while lightning causes the remaining wildland fires. Irrigated agricultural areas, which tend to surround Yuba City, are considered a low hazard for wildland fires.

The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very High, Extreme. These zones apply to areas designated as State Responsibility Areas – areas in which the State has primary firefighting responsibility. The project site is not within a State Responsibility Area and therefore has not been placed in a Fire Hazard Severity Zone.

3.20.2 Impact Assessment/ Environmental Consequences

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

As discussed in Section 3.17 of this Initial Study, Project construction is not expected to substantially obstruct emergency vehicles or any evacuations that may occur in the area. Project operations likewise

would not obstruct any roadways. Therefore, the impacts of the Project related to emergency response or evacuations would be less than significant.

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?

The Project site is in a level urban area that with little, if any, native vegetation remaining, and the urban area is surrounded by irrigated farmland. This type of environment is generally not subject to wildfires. In light of this, the impacts due to exposure of new residents to wildfire is less than significant.

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?

As discussed above, the site is not near any wildland areas and the Project itself will not create any improvements that potentially could generate wildfire conditions. As such the Project will not be constructing or maintaining wildfire related infrastructure such as fire breaks, emergency water sources, etc. Thus, the Project will not create any potential significant impacts that could result from these types of improvements.

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 Project site is in a topographically flat area. There are no streams or other channels that cross the site. As such, it is not expected that people or structures would be exposed to significant risks from changes resulting from fires in steeper areas, including downslope or downstream flooding or landslides. Impacts of the Project related to these issues would be less than significant.

3.21 Mandatory Findings of Significance

Table 3-21: Mandatory Findings of Significance				
Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project 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 example of the major periods of California history or prehistory?			X	
b) 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) Have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

3.21.1 Impact Assessment/Environmental Consequences:

a) Does the project 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 example of the major periods of California history or prehistory?

The land was stripped many years ago of native vegetation for agricultural uses. The conclusion of the biological study prepared for the Project provided that, with the recommended mitigation measures, the construction of these 82 single-family residences will not significantly degrade the quality of the natural environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. Based on the results of the cultural resource study prepared for the Project, it will not eliminate any important examples of the major periods of California history or prehistory.

The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the proposed Project, with its mitigation measures, will have a less than significant effect on the local environment.

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)

CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects.

This Project is consistent with the residential densities and policies of the General Plan. Based on the traffic study prepared for the Project, with the proposed mitigation measure, the traffic that will be generated by the Project will not create any significant impacts. The City has adequate water and wastewater capacity, and the Project will be extending those services to the site. Stormwater drainage will also meet all City standards. The City has good development and design standards that will be applied to the subdivision. The loss of agricultural land is cumulative but based on City and County agricultural protection program, the loss is limited to within the urban areas of the cities which is a minor portion of the entire County. The school district has not indicated that they lack capacity to provide proper educational facilities to the new students. The FRAQMD also did not comment that the Project would create any significant cumulative impacts on air quality. Therefore, there are no significant impacts that will be individually limited but cumulatively considerable.

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

The proposed Project in and of itself would not create a significant hazard to the public or the environment. Construction-related air quality, noise, and hazardous materials exposure impacts would occur for a very short period and only be a minor impact during that time period. Therefore, the proposed Project would not have any direct or indirect significant adverse impacts on humans.

4. Section References and/or Incorporated by Reference

According to Section 15150 of the CEQA Guidelines, an ND may incorporate by reference all or portions of another document that is a matter of public record. The incorporated language will be considered to be set forth in full as part of the text of the ND. All documents incorporated by reference are available for review at, or can be obtained through, the City of Yuba City Development Services Department located at the address provided above. The following documents are incorporated by reference:

KD Anderson & Associates, Inc., March 16, 2023, Focused Traffic Impact Analysis for Johnson Ranch Subdivision.

Marcus Bole and Associates, January 3, 2023, Biological Assessment and Wetland Determination for the Johnson Ranch Tentative subdivision Tract Map Project.

Sean Jenson, January 2, 2023, Cultural Resources Inventory Survey – Johnson Ranch Estates Subdivision.

Bollard & Brannan, March 31, 2004, Environmental Noise Assessment, Canterbury Residential Development (originally prepared for a neighboring subdivision that is also equally relevant to this property).

Fehr & Peers, Inc. September 2020. SB 743 Implementation Guidelines for City of Yuba City.

Governor's Office of Planning and Research, November 2017. Technical Advisory on Evaluating Transportation Impacts in CEQA.

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"Determination of 1-in-200 Year Floodplain for Yuba City Urban Level of Flood Protection Determination," prepared for Yuba City by MBK Engineers, November 2015.

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Feather River Air Quality Management District (FRAQMD) CEQA Significance Thresholds.

Yuba Sutter Transit Route Map.

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City of Yuba City Wastewater Master Plan.

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Appendix A

MITIGATION MEASURES AND MONITORING PLAN

Johnson Ranch Estates

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09

City of Yuba City
MITIGATION MEASURES AND MONITORING PLAN
Johnson Ranch Estates:

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09 and a Development Agreement

Impact	Mitigation Measure	Responsible Party	Monitoring Party	Timing
3.4 Biological Resources	**Biological Resources Mitigation Measure 1:** Preconstruction nesting bird surveys will be required during nesting season (February 1 through August 31) prior to demolition of the buildings/structures or onsite trees. The appropriate area to be surveyed and timing of the survey may vary depending on the activity and species that could be affected. If no active nests are found during the focused surveys, no further action under this measure will be required. If an active nest is located during the preconstruction surveys, the biologist will notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives will be evaluated and implemented to the extent feasible. If avoidance is not feasible, construction will be prohibited within 100 feet of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior of the nesting bird is observed.	Developer	Public Works Dept., Development Services Dept	Prior to the construction phase

3.7 Geology and Soils	**Paleontological Mitigation 1:** Mitigation Measure # 1 shall be placed as a note on the Demolition and Grading Plans. If paleontological resources are found, the construction manager shall halt all activity and immediately contact the Development Services Department at 530-822-5145. Mitigation shall be conducted as follows: 1. Identify and evaluate paleontological resources by intense field survey where impacts are considered high; 2. Assess effects on identified sites; 3. Consult with the institutional/academic paleontologists conducting research investigations within the geological formations that are slated to be impacted; 4. Obtain comments from the researchers; 5. Comply with researchers' recommendations to address any significant adverse effects were determined by the City to be feasible. In considering any suggested mitigation proposed by the consulting paleontologist, the City's Community Development Department Staff shall determine whether avoidance is necessary and feasible considering factors such as the nature of the find, project design, costs, Specific or General Plan policies and land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for	Developer	Public Works Dept., Development Services Dept.	During construction phase

	paleontological resources is carried out.			
3.8. Greenhouse Gases	**Greenhouse Gas Mitigation 1:** The site grading and construction of the retail center shall comply with the GHG Reduction Measures provided in the adopted Yuba City Resource Efficiency Plan.	Developer	Development Services Dept.	Prior to issuance of building permits.
3.17. Transportation and Traffic	**Transportation and Traffic Mitigation 1:** Prior to recordation of the final map, the proposed development shall pay its fair share contribution for future traffic signal improvements at the intersection of Queens Avenue and Peach Tree lane. The fair share has been determined to be 1.4% of $300,000. Prior to Improvement Plans, the project shall install signage and/or striping improvements along Peach Tree Lane to restrict left turn movements during the hours of 4pm and 6pm, or as determined by the Public Works Director.	Developer	Public Works Dept.	Prior to recordation of the map and prior to improvement plans
3.5. Cultural Resources; 3.18. Tribal Cultural Resources	**Tribal Cultural Resources Mitigation 1: Unanticipated Discoveries:** If any suspected TCRs are discovered during ground disturbing construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the project area and nature of the find. A Tribal Representative from a California Native American Tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC 21074). The Tribal Representative will make recommendations for further evaluation and treatment as necessary.	Developer	Public Works Dept., Development Services Dept	During construction phase

	Preservation in place is the preferred alternative under CEQA and UAIC protocols, and every effort must be made to preserve the resources in place, including through project redesign. Culturally appropriate treatment may be, but is not limited to, processing materials for reburial, minimizing handling of cultural objects, leaving objects in place within the landscape, returning objects to a location within the project area where they will not be subject to future impacts. The Tribe does not consider curation of TCR's to be appropriate or respectful and request that materials not be permanently curated, unless approved by the Tribe. The contractor shall implement any measures deemed by the CEQA lead agency to be necessary and feasible to preserve in place, avoid, or minimize impacts to the resource, including but limited to, facilitating the appropriate tribal treatment of the find, as necessary. Treatment that preserves or restores the cultural character and integrity of a Tribal Cultural Resource may include Tribal monitoring, culturally appropriate recovery of cultural objects, and reburial of cultural objects or cultural soil. Work at the discovery location cannot resume until all necessary investigation and evaluation of the discovery under the requirements of CEQA, including AB 52 has been satisfied.			

Appendix B

Cultural Resources Inventory Survey for Johnson Ranch Estates

Sean Jenson, January 2, 2023

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09

CULTURAL RESOURCES INVENTORY SURVEY

Johnson Ranch Estates Subdivision Project
circa 15.84-acres
Yuba City, Sutter County, California.

Prepared for

MHM, Inc.
1204 E Street
Marysville, CA 95901

Author

Sean Michael Jensen, M. A.

Keywords *for Information Center Use:*
Cultural Resources Inventory Survey, circa 15.84-acres, Sutter County, CEQA, USGS Sutter, Ca. 7.5' Quadrangle, No Significant Historical Resources, No Unique Archaeological Resources

January 2, 2023

GENESIS SOCIETY

ARCHAEOLOGICAL - HISTORICAL - CULTURAL RESOURCE MANAGEMENT SERVICES

ABSTRACT

This report details the results of a cultural resources inventory survey of approximately 15.84-acres of land adjacent to the west side of West Onstott Frontage Road/State Route 99, and the east side of both Butte Bend Lane and Butte Vista Lane, within the City of Yuba City, in Sutter County, California.

The proposed project will involve subdivision of the property into 82 residential lots, followed by demolition of a residential building and associated ancillary structures, land clearing, placement of buried utilities, excavation of storm water detention basins, construction of access roads, and construction of new residential buildings.

Existing records at the NEIC document that all of the present APE had been subjected to previous archaeological investigation, and that no cultural resources had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. The pedestrian survey confirmed the presence of one historic-era site (2726 West Onstott Road) within the APE. The site was recorded on DPR 523 forms, and the site was evaluated for significance, and recommended not eligible for inclusion in the California Register of Historical Resources, under any of the relevant criteria.

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on December 22, 2022. The NAHC response is pending.

Based on the absence of significant historical resources/unique archaeological resources/historic properties within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed.

CONTENTS

1. INTRODUCTION

Project Background

This report details the results of a cultural resources inventory survey of approximately 15.84-acres of land adjacent to the west side of West Onstott Frontage Road/State Route 99, and the east side of both Butte Bend Lane and Butte Vista Lane, within the City of Yuba City, in Sutter County, California.

The proposed project will involve subdivision of the property into 82 residential lots, followed by demolition of a residential building and associated ancillary structures, land clearing, placement of buried utilities, excavation of storm water detention basins, construction of access roads, and construction of new residential buildings.

Since the project will involve physical disturbance to ground surface and sub-surface components in conjunction with demolition and residential development, it has the potential to impact cultural resources that may be located within the area of potential effects (APE). In this case, the APE consists of the circa 15.84-acre property. Evaluation of the project's potential to impact cultural resources must be undertaken in conformity with Sutter County rules and regulations, and in compliance with requirements of the California Environmental Quality Act of 1970, Public Resources Code, Section 21000, et seq. (CEQA), and The California CEQA Environmental Quality Act Guidelines, California Administrative Code, Section 15000 et seq. (Guidelines as amended).

Regulatory Context

The following section provides a summary of the applicable regulations, policies and guidelines relating to the proper management of cultural resources.

The California Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (Public Resources Code (PRC) Section 5020.1(j)). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)). The criteria for listing resources on the CRHR were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
(2) Is associated with the lives of persons important in our past
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
(4) Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852(d)(2)). The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Environmental Quality Act

As described further, the following CEQA statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- PRC Section 21083.2(g) defines "unique archaeological resource."
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) define "historical resources." In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change in the significance of an historical resource." It also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines "tribal cultural resources."
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.

California Health and Safety Code Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (Section 7050.5b). PRC Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native

American, the coroner must contact the California NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

PRC Sections 21083.2(b)–(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context, and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (PRC Section 21084.1; CEQA Guidelines Section 15064.5(b)). If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources, or identified as significant in a historical resources survey (meeting the requirements of PRC Section 5024.1(q)), it is a "historical resource" and is presumed to be historically or culturally significant for purposes of CEQA (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource, even if it does not fall within this presumption (PRC Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A "substantial adverse change in the significance of an historical resource" reflecting a significant effect under CEQA means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1); PRC Section 5020.1(q)). In turn, the significance of a historical resource is materially impaired when a project does any of the following:

(1) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

(2) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(3) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA [CEQA Guidelines Section 15064.5(b)(2)].

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any "historical resources," then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2(a), (b), and (c)).

Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (PRC 21074(c); 21083.2(h)), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described in the following text, these procedures are detailed in PRC Section 5097.98.

Native American Historic Cultural Sites

State law (PRC Section 5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the Native American Heritage Commission (NAHC).

In the event that Native American human remains or related cultural material are encountered, Section 15064.5(e) of the CEQA Guidelines (as incorporated from PRC Section 5097.98) and California Health and Safety Code Section 7050.5 define the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended of the site or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that a county-approved coroner be contacted in order to determine if the remains are of Native American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98 (14 CCR 15064.5(e)).

Scope of Work

Compliance with CEQA (and County rules and regulations) requires completion of projects in conformity with the amended (October 1998) Guidelines, including in particular Section 15064.5. Based on these rules, regulations and Guidelines, the following specific tasks were considered an adequate and appropriate Scope of Work for the present archaeological survey:

- Conduct a records search at the Northeast Information Center of the California Historical Resources Information System and consult with the Native American Heritage Commission. The goals of the records search and consultation are to determine (a) the extent and distribution of previous archaeological surveys, (b) the locations of known archaeological sites and any previously recorded archaeological districts, and (c) the relationships between known sites and environmental variables. This step is designed to ensure that, during subsequent field survey work, all significant/eligible cultural resources are discovered, correctly identified, fully documented, and properly interpreted.

- Conduct a pedestrian survey of the APE in order to record and evaluate any previously unidentified cultural resources. Based on map review, a complete coverage, intensive survey was considered appropriate, given the presence of moderate to high archaeological sensitivity within the property. The purpose of the pedestrian survey is to ensure that any previously identified sites are re-located and evaluated in relation to the present project/undertaking. For any previously undocumented sites discovered, the field survey would include formally recording these resources on State of California DPR-523 Forms.

- Upon completion of the records search and pedestrian survey, prepare a Final Report that identifies project effects and recommends appropriate mitigation measures for sites that might be affected by the undertaking and that are considered significant or potentially significant per CEQA, and/or eligible or potentially eligible for inclusion on the California Register of Historical Resources.

The remainder of the present document constitutes the Final Report for this project, detailing the results of the records search, consultation and pedestrian survey and providing recommendations for treatment of significant/eligible archaeological and historic sites. All

field survey work followed guidelines provided by the State Office of Historic Preservation (Sacramento) and conforms to accepted professional standards.

2. Location, Environmental and Cultural Context

Location

The present APE incorporates approximately 15.84-acres of land land adjacent to the west side of West Onstott Frontage Road/State Route 99, and the east side of both Butte Bend Lane and Butte Vista Lane, within the City of Yuba City, in Sutter County, California. Lands affected are located within a portion of Section 9 of Township 15 North, Range 3 East, as shown on the USGS Sutter, California, 7.5' Series Quadrangle (see attached ***Area of Potential Effects and Cultural Resources Survey Area Map***).

Environment

The project area consists of northern Sacramento Valley lands located approximately one mile west of the Feather River, and approximately two miles east of the Sutter Buttes, and 13 miles east of the Sacramento River, within a basin that receives winter storm runoff from a significant watershed. The basin is formed in deep sediments of the Sacramento Valley, which in turn has been uplifted along its eastern margin where it interfaces with the lower foothills of the Sierra Nevada, and along its western margin where it interfaces with the Coast Range.

Topography within the APE is nearly flat with an elevation of approximately 62-feet above sea level. The region is characterized by a Mediterranean climate, with cool, rainy winters and hot, dry summers. The average annual temperature for the project area ranges from 51-75ºF, with the hottest temperatures occurring in July, reaching on average a maximum of 94ºF. The average yearly rainfall totals for the area are approximately 19.37 inches, with the maximum annual precipitation occurring in January.

The region once supported a variety of flora and fauna taxa which have been subsequently replaced with domesticated plants and a slimmer variety of animals, including marsh birds, ducks, geese, raptors, reptiles, amphibians and small mammals.

In view of the substantial surface water sources throughout this area, prehistoric use and occupation was generally intensive, but the population was not randomly distributed. Clearly, the most intensively occupied land areas were at elevated locations along the river systems and along the Valley/Foothill interface, especially along the margins of the Sutter Buttes to the west.

Prehistory

The earliest residents in the Great Central Valley are represented by the Fluted Point and Western Pluvial Lakes Traditions, which date from about 11,500 to 7,500 years ago (Moratto 2004). Within portions of the Central Valley of California, fluted projectile points have been found at Tracy Lake (Heizer 1938) and around the margins of Buena Vista Lake in Kern County. Similar materials have been found to the north, at Samwel Cave near Shasta Lake and near McCloud and Big Springs in Siskiyou County. These early peoples are thought to have subsisted using a combination of generalized hunting and lacustrine exploitation (Moratto 2004).

These early cultural assemblages were followed by an increase in Native population density after about 7,500 years ago. One of the most securely dated of these assemblages in north-central California is from the Squaw Creek Site located north of Redding. Here, a charcoal-based C-14 date suggests extensive Native American presence around 6,500 years ago, or 4,500 B.C. Most of the artifactual material dating to this time period has counterparts further south, around Borax (Clear) Lake to the west, and the Farmington Area in a Valley setting east of Stockton. Important artifact types from this time period include large wide-stemmed projectile points and manos and metates.

In the Northern Sacramento Valley in the general vicinity of the project area, aboriginal populations continued to expand between 6,500 and 4,500 years ago. Early Penutian-speaking arrivals in this area may be represented by the archaeological complex known in the literature as the "Windmiller" or "Early Horizon." These sites date to about 4,000-5,000 years ago, with the connection to Penutian-speaking peoples suggested on the basis of extended burials, large leaf-shaped and stemmed projectile points similar to points of the Stemmed Point Tradition in the Plateau and portions of the Great Basin, large villages established along major waterways, and elaborate material culture with a wide range of ornamental and other non-utilitarian artifact types being present (Ragir 1972). The continuation of this pattern through the "Middle Horizon", or from about 1,000 B.C. to A.D. 300, has also been documented at riverine sites within the Sacramento Valley, including several sites along the Feather River and Sacramento River, within the general project vicinity.

Sometime around AD 200-300, the Valley may have experienced another wave of Penutian immigration. Arriving ultimately from southern Oregon and the Columbia and Modoc Plateau region and proceeding down the major drainage systems (including the Feather, Yuba and American Rivers and of course the Sacramento River), these Penutian-speaking arrivals may have displaced the earlier populations, including remnant Hokan-speaking peoples still resident within the Valley. Presumably introduced by these last Penutian-speaking peoples to arrive were more extensive use of bulbs and other plant foods, animal and fishing products more intensively processed with mortars and pestles, and perhaps the bow and arrow and associated small stemmed- and corner-notched projectile points.

While very little archaeological research has been conducted within the Sutter Buttes, Jensen (1970) conducted research and limited excavation on 24 sites in 1968-1969. Given the

paucity of information concerning specific prehistoric sequences within the Sutter Buttes, Jensen's findings are useful in developing an understanding of land use and subsistence activities within the project area. After considering local land use and subsistence opportunities, Jensen described six site types present within the Sutter Buttes:

- Occupation Sites: Equated with "village" or "habitation" sites and refers to any locale utilized over sufficient time or intensively enough to produce associated midden soils. Mound-like deposition and soil blackening or discoloration is present. Evidence of surface structures may or may not be present.

- Temporary Camp Sites: Open sites with no associated midden. Flaked stone and associated bedrock mortars are commonly present. These sites are essentially task specific with no long-term occupation or intensive use presumed based upon lack of midden soils.

- Quarry Workshop Sites: Occur within close proximity of preferred tool stone outcrops. This site type primarily contains debris associated with tool stone exploitation and may be associated with a lithic reduction workshop.

- Rock Shelter and Cave Sites: All previously observed rock shelters and caves in the Sutter Buttes are formed from overhanging andesite boulders. No completely dry caves or shelters have been recorded; however, one exogene cave recorded at CA-SUT-44 occurs at the border of the central igneous core and the uplifted sedimentary mass that once formed a portion of the valley floor.

- Bedrock Mortar Sites: The most prolific site type in the Buttes is identified by the presence of one or more bedrock mortar holes not associated with a midden deposit. All previously recorded bedrock mortar sites in the Sutter Buttes are associated with oaks, which appears to indicate specific adaptation to acorns.

Petroglyph Sites: One site of this type, CA-SUT-5, has been identified in the Sutter Buttes. This site contains a pitted boulder whose overall style appears to be distributed throughout Northern California. These pitted boulders may represent a ceremonial association with rain or fertility, but most interpretations of the utility of these pitted boulders remain speculative. However, recent investigations of similar cupule petroglyphs, conducted by Jensen (2017) and Jensen, Palozzolo, and Tichinin (2021), indicate a possible calendric function for the petroglyphs.

Jensen's 1969 excavation of a rock shelter site (CA-SUT-34) resulted in the recovery of artifacts which suggested that the site was used primarily for winter occupation. Jensen posited that occupants may have arrived via a stream adjacent to the site. The upper deposits excavated at CA-SUT-34 are diagnostic of a Late Period occupation and appears to be associated with other Late Period occupations of ethnographically recorded Maidu villages between Butte Creek and the Feather River. This area was subject to winter flooding that occasionally drove populations from the area. As waters rose, inhabitants would retreat to the higher ground of the Sutter Buttes. Jensen's research led him to conclude that only

temporary camps, rather than permanent occupation sites, existed within the Sutter Buttes, a hypothesis supported by the limited classes of tool types found in this area and the lack of evidence of burials within the Sutter Buttes (Jensen 1970).

Ethnography

The project area is located within territory claimed by both the Nisenan (Wilson and Towne 1978) and the Patwin (Johnson 1978) at the time of initial contact with European/American culture (circa AD 1850), but close to the border shared with the Konkow to the north (Riddell 1978; Dixon 1905). The Nisenan were also referred to as Southern Maidu (Kroeber 1925).

The Nisenan, Patwin and Konkow were Penutian speakers (Shipley 1978), for whom the basic social unit was the family, although the village may also have functioned as a social, political and economic unit. Villages were usually located near water sources, with major villages inhabited mainly in the winter as it was necessary to relocate into the hills and higher elevation zones to establish temporary camps during food gathering seasons (i.e., spring, summer and fall). Villages typically consisted of a scattering of bark houses, numbering from four or five to several dozen in larger villages, each house containing a single family of from three to seven people.

As with all northern California Indian groups, economic life for these Penutian-speaking groups revolved around hunting, fishing and the collecting of plant foods. Deer were an important meat source and were hunted by individuals by stalking or snaring, or by groups in community drives. Salmon runs, and other food resources available along the Feather and Yuba Rivers, also contributed significantly to local economies. While much of the fish protein was consumed immediately, a significant percentage, particularly during the fall salmon run, was prepared for storage and consumed during winter months (Broughton 1988). Acorns represented one of the most important vegetal foods and were particularly abundant within the Valley Oak Woodlands, which dominated lands located along the margins of the major rivers, including the Sacramento River, the Feather River, the Yuba River and the Bear River, all located within the general project vicinity.

Relations between Euro-Americans and Native Americans in the northern Sacramento Valley followed the course of interaction documented in most other parts of North America, but with particularly devastating consequences for the Sacramento Valley Indians. John Work's fur trapping expedition through the region in 1832-33 resulted in the introduction of several communicable diseases, the results of which were devastating to Native culture and society (Maloney 1945; Cook 1955, 1976).

Historic Context

Recorded history in the project area begins with the attempts of Spanish colonists to explore parts of California beyond the coastal zone. The earliest non-Native American to view the Sutter Buttes was Gabriel Moraga, who, in 1808, made exploration forays into the region (Hendrix 1980:33). Later, Spanish Lieutenant Arguello led an 1817 expedition from San

Francisco into northern California. Arguello is credited with naming both the Feather River (El Rio de las Plumas) and the Sutter Buttes (los Picachos-the peaks) (Hendrix 1980:34).

John Work's fur trapping expedition through central California in 1832-33, the best documented of the initial forays into the Valley. Work's expedition introduced several communicable diseases to the Native inhabitants that turned out to be devastating to Nisenan culture and society (Work 1945; Cook 1976). Work's party utilized the Sutter Buttes as a "dry land" base for his group of some 163 individuals, making observations of the abundant flora and fauna in his journal: "There was excellent feeding for the horses and abundance of animals for the people to subsist on – 395 elk, 148 deer, 17 bears and 8 antelopes have been killed in a month, which is certainly a great many more than was required" (quoted in Dillon 1975:190).

Additional major incursion by European American populations followed John Sutter's establishment of New Helvetia. Born in Baden, Germany in 1803, John Augustus Sutter left behind a wife and five children in 1834 to settle in America. Over the next five years, Sutter traveled throughout the western states, even spending time in the Kingdom of Hawaii and what would become Sitka, Alaska, before arriving in Alta California in 1839 (Hurtado 2006).

Sutter envisioned a vast agrarian utopia for California's central valley, but in order to see his plans through, he first had to receive permission from then Mexican Governor, Juan Bautista Alvarado. In August 1839, Sutter began construction of his fortified settlement known as New Helvetia (New Switzerland), and one year later became a Mexican citizen. The following year, Governor Alvarado granted Sutter the 48,849-acre Rancho New Helvetia land grant. The grant extended from present-day Marysville in the north, southward along the Feather River, to the confluence of the Sacramento River and American River, in present-day Sacramento. Coincident with the land grant, Sutter brokered a deal with the Russian-American Company for the purchase of Fort Ross in exchange for $30,000. Sutter dismantled many of the structures, transporting the materials and livestock to the Central Valley.

Within the grant, Sutter produced various agricultural commodities including vast fields of wheat, approximately 13,000 head of cattle, and fruit orchards. By 1844, Sutter's son John Sutter, Jr. had moved to New Helvetia, with the remainder of the family following shortly thereafter.

United States military exploration of the region occurred during the 1840's, when a detachment of the Wilkes expedition identified the Sutter Buttes from Work's earlier descriptions. Later, John C. Fremont's second mapping exploration of northern California, in 1846, transformed into efforts supporting the U.S. war effort against Mexico. It was while camping at the Sutter Buttes, that Fremont planned the initial strategies that would assist the "Bear Flag Revolt," and establish American dominance over California (Hendrix 1980:35).

Between 1846 and 1848, the United States federal government-initiated hostilities with Mexico, ultimately resulting in nearly 30,000 lives lost. The ultimate result of the Mexican-American War, which lasted from 1846 to 1848, was the surrender of California under the

Treaty of Guadalupe Hidalgo. The following year witnessed the Gold Rush into northern California, and the state, as a whole, underwent substantial demographic changes.

In 1848, Sutter directed John Marshall to establish a lumber mill at Coloma, in the Sierra Nevada foothills along the American River. On January 24, 1848, Marshall discovered gold at the site. Less than two weeks later, on February 2, 1848, the Treaty of Guadalupe Hidalgo was signed. These convergent events resulted in the influx of thousands of fortune seekers into California and the Sacramento area, ultimately destroying Sutter's hopes for a northern agrarian empire. The embarcadero became a trading center instead, with supplies from San Francisco sold to miners departing for the foothills east of Sacramento and elsewhere in the Sierra Nevada.

By 1849, Sutter's son had assumed title to New Helvetia, and began a systematic survey of the extensive land grant, resulting eventually in a network of straight 80-foot wide streets and 20-foot wide alleys within Sacramento. Proximity to the American and Sacramento Rivers prompted levee construction as early as 1850.

Similar to the rest of Sutter County, the land that makes up Yuba City was part of the original Mexican land grant acquired by John Sutter. By 1840, Sutter established his Hock Farm immediately west of the Feather River, and south of present-day Yuba City, which was one of California's first large scale agricultural ventures. The establishment of this farm set a precedent for farming in Yuba City and Sutter County.

The organization of Yuba City began on July 27, 1849, when John Sutter deeded approximately four-square miles of land west of the Feather River to Henry Cheever, Sam Brannon, and Pierson B. Redding. The men hired Joseph S. Ruth to survey the terrain and lay out the city. In early September, property lots within the Yuba City limits were for sale and Redding was given the task of advertising and selling them. By 1852, Yuba City had one hotel, a small grocery store, two saloons, one blacksmith, one justice of the peace, a post office, and a population of roughly 150 people. Although Yuba City grew slowly during the 1850s and 1860s, in 1856 it became the county seat for Sutter County. Prior to Yuba City, the county seat was held by Oro, Nicolaus, and Vernon.

As elsewhere in California, many of the Valley communities were purposefully created and funded by the railroads, with one of the objectives being to provide necessary services for the system itself (water, fuel), and another being to benefit from housing construction spurred by the extension of the railroad. Several towns both north and south of Yuba City represent such communities whose early growth was directly related to the railroad and to the benefits to local agriculture and ranching (both sheep and cattle) which accompanied expansion of the market created by the extension of long-haul freight into the Valley.

As Yuba City continued to grow into the 20th century, the city developed further west away from the Feather River. This can be seen with the growing number of canning and packing industries that developed in order to support Sutter County's growing agricultural industry. These began near the Northern California Railroad lines (Southern Pacific Railroad by 1899).

In addition to the availability of freight service, the Northern Electric Railroad provided passenger service across the Feather River. In 1909, the Northern Electric Railroad had constructed a steel truss bridge alongside a covered wagon bridge connecting Marysville and Yuba City. The construction of a passenger and railroad link between the Cities of Marysville and Yuba City was crucial to the overall growth and development of both cities.

The APE, as well as the surrounding land area, has been subjected to agricultural development throughout the 20th century, ultimately giving way to greater residential and commercial development, first following the end of World War II, and more intensively into the 21st century.

3. RECORDS SEARCH and SOURCES CONSULTED

Several types of information were considered relevant to evaluating the types of archaeological sites and site distribution that might be encountered within the project area. The information evaluated prior to conducting the pedestrian survey includes data maintained by the Northeast Information Center, and available published and unpublished documents relevant to regional prehistory, ethnography, and early historic developments.

Northeast Information Center Records

The official Sutter County archaeological records were examined on December 23, 2022 (I.C. File # D22-430). This search documented the following existing conditions for the 15.84-acre APE, and for a 0.25-mile radius surrounding the APE.

- According to the Information Center, all of the present APE has been subjected to previous cultural resources survey as a result of two (2) previous investigations. Two (2) investigations have been documented within the 0.25-mile search radius. The four investigations include:

NEIC #	Date	Author (s)
001151	n/d	County of Sutter
005754	2003	Huberland
007154	1992	Offerman
009954	2008	Berg, Waechter, Carpenter, and Baker

- According to the Information Center's records, no resources have been documented within the APE, nor within the 0.25-mile search radius.

Other Sources Consulted

In addition to examining the archaeological site and survey records of Sutter County maintained at the Northeast Information Center, the following sources were also included in the search conducted at the Information Center, or were evaluated separately:

- The National Register of Historic Places (1986, Supplements).
- The California Register of Historical Resources.
- The California Inventory of Historic Resources (State of California 1976).
- The California Historical Landmarks (State of California 1996).
- The California Points of Historical Interest (May 1992 and updates).
- The Historic Property Data File (OHP 2012).
- 1867 GLO Plat, T15N, R3E.
- Marysville, CA USGS quadrangle, 1:125,000 (1888).
- Sutter, CA USGS quadrangle (1911).
- NETR Topographic Maps (1911, 1955, 1959, 1967, 1975, 1983, 2012, 2015, 2018).
- NETR Aerial Photographs (1973, 1984, 1998, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020).
- EDR Historic Topographic Maps (1888, 1891, 1894, 1895, 1911, 1952, 1973, 2012, 2015, 2018).
- EDR Aerial Photographs (1888, 1891, 1894, 1895, 1911, 1952, 1973, 2012, 2015, 2018).
- Sutter County Museum.
- Existing published and unpublished documents relevant to prehistory, ethnography, and early historic developments in the vicinity. These sources, reviewed below, provided a general environmental and cultural context by means of which to assess likely site types and distribution patterns for the project area.

4. CULTURAL RESOURCES SURVEY and CULTURAL INVENTORY

Survey Strategy and Field Work

All of the APE was subjected to intensive pedestrian survey by means of walking systematic transects spaced at 30-meter intervals.

In searching for cultural resources, the surveyor considered the results of background research and was alert for any unusual contours, soil changes, distinctive vegetation patterns, exotic materials, artifacts, feature or feature remnants and other possible markers of cultural sites.

Fieldwork was undertaken on December 31, 2022, by Principal Investigator, Sean Michael Jensen, M.A. Mr. Jensen is a professional archaeologist, historian and architectural historian, with 36 years of experience in archaeology, architectural history and history, who meets the professional requirements of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (Federal Register, Vol. 48, No. 190), as demonstrated in his listing on the California Historical Resources Information System list of qualified archaeologists, architectural historians and historians. No special problems were encountered and all survey objectives were satisfactorily achieved.

General Field Observations

Fieldwork identified the following general conditions within the project area. Disturbance to the ground surface within the APE ranges from moderate to substantial. The entire property has been subjected to past episodes of flooding and exhibits evidence of past agricultural modification as well as residential building construction, grading and land re-contouring, and placement of both buried and overhead utilities.

Examination of the EDR topographic (1888, 1891, 1894, 1895, 1911, 1952, 1973, 2012, 2015, 2018) and aerial photo packages, along with the NETR topographic (1911, 1955, 1959, 1967, 1975, 1983, 2012, 2015, 2018) and aerial photos (1973, 1984, 1998, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020) provided a general history of the project area's ground surface, including the built environment, over the past 125 years.

The 1937 and 1952 aerial images depict nut orchards throughout the APE, and two buildings are depicted within the APE's northeast corner. The 1952 topographic map depicts a residence and barn in the same proximity as the 1937 and 1952 aerials.

The 1973 aerial image shows nut orchards throughout the APE, but the two buildings appear to have been replaced with two different buildings. The residence (easterly of the two) appears to have been built further west from the earlier building, and the new shop building is located south of the earlier barn structure. Similarly, the 1973 topographic map depicts a "new" building through the USGS purple/pink coloration for features new since the last map update. Examination of the official Sutter County Assessor records confirm that this residence and the ancillary garage building were constructed in 1968.

Overview of APE, view northwest

1998 and later aerials show that the nut orchard had been removed from the property, and that deep ripping of soils had been completed (see photo, above).

Prehistoric Resources

No evidence of prehistoric activity or occupation was observed during the present pedestrian survey. The absence of such resources may best be explained by more suitable habitation locales situated closer to the Feather River, to the east, the Sacramento River and to the Sutter Buttes, to the west, and to the level of disturbance to which all of the property has been subjected.

Historic Resources

One historic-era resource was identified within the APE during the pedestrian survey. The resource was recorded on DPR 523 forms, and assigned the temporary designation: "2726 West Onstott Road."

2726 West Onstott Road: The site consists of the existing residence and garage/shop on the Johnson property.

The residence is a single-story, single-family building situated on a concrete stem wall foundation. The exterior is clad with T1-11 plywood siding. The composition asphalt shingle covered roof is situated on trusses composed of exposed 2"x4" rafters. Windows are contemporary vinyl framed varieties. A small, covered porch is situated at the building's east entrance. A contemporary central air conditioning unit is located on the building's south side, and a shed-roofed room addition (possibly started as an enclosed porch) is situated on the building's west side. This shed roof addition has facilitated a small, covered porch/carport on the building's northwest corner.

Situated a short distance southwest of the residence is a workshop/garage building. Situated on a series of poured concrete slabs, the building's exterior is clad in the same T1-11 plywood siding material as the residence. The shed roof is covered with asphalt composition shingles. A standard door is situated mid-wall on the building's south side, and the building's east wall exhibits large, sliding "barn" doors. A small, carport area is also located on the buildings northeast corner.

5. ELIGIBILITY RECOMMENDATIONS

General

Sites identified within the project area were to be evaluated for significance in relation to CEQA significance criteria. Historical resources per CEQA are defined as buildings, sites, structures, objects, or districts, each of which may have historical, architectural, archaeological, cultural, or scientific significance. CEQA requires that, if a project results in an effect that may cause a substantial adverse change in the significance of a historical

resource, alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed. Therefore, before developing mitigation measures, the significance of cultural resources must be determined in relation to criteria presented in PRC 15064.5, which defines a historically significant resource (one eligible for listing in the California Register of Historical Resources, per PRC SS5024.1) as an archaeological site which possess one or more of the following attributes or qualities:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2. Is associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

In addition, CEQA further distinguishes between archaeological sites that meet the definition of a significant historical resource as described above (for the purpose of determining effects), and "unique archaeological resources." An archaeological resource is considered "unique" (Section 21083.2(g)) when the resource not merely adds to the current body of knowledge, but when there is a high probability that the resource also:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Application of the Criteria to Historic Site "2726 West Onstott Road"

Specific application of the criteria to historic site "2726 West Onstott Road" yields the following recommendations.

1) This site is not associated with events that have made significant contributions to the broad patterns of local or regional history or the cultural heritage of California or the United States. While residential and agricultural activities were undertaken on the property, there is no evidence that any of these buildings, or the functions undertaken therein, ever made broader contributions to history.

   For these reasons, this site is recommended not eligible per CRHR Criterion 1), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

2) This site is not associated with the lives of persons important to local, California or national history. Janice Johnson, the current owner, does not appear to have made any

significant contributions to local, regional, state, or national agriculture. The same can be said for previous owners, as well as those individuals responsible for the various construction efforts.

For these reasons, this site is recommended not eligible per CRHR Criterion 2), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

3) Evidence gleaned from the topographic maps and aerial images, combined with observations made during the pedestrian survey support a clear sequence of building events within the site. Prior to 1968, one residence and one barn exist within the property. Both of these were subsequently demolished, and the existing residence and garage/shop were constructed in 1968. Based on existing inventory data maintained by the Northeast Information Center, numerous examples of farm/ranch structures of this architectural style exist in the county, the region, and the state. Clearly, this site is not at all rare in the California inventory, nor does this site represent a "... distinctive type..." or "...a distinguishable entity whose components may lack individual distinction."

   For these reasons, this site is recommended not eligible per CRHR Criterion 3), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

4) Data recovery work involving this site could not be expected to provide unique or unusual additional information over and above that which exists in the existing site record prepared. There are no subsurface accumulations for which further evaluation or recordation might be considered appropriate. Under these circumstances, further research in the form of data recovery or additional detailed recording would not likely further our understanding of this site.

   For these reasons, this site is recommended not eligible per CRHR Criterion 4), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

While the site would not appear to be under the evaluative criteria, the issue of site integrity must be addressed. The site, 2726 West Onstott Road, represents a late 20th century residential building and garage/shop. Evidence revealed from the background investigation and pedestrian survey showed that prior to 1968, one residence and one barn exist within the property. Both of these earlier buildings were subsequently demolished, and the existing residence and garage/shop were constructed in 1968. Further, the room addition to the residence's west side, the addition of contemporary asphalt shingles, and the wholesale replacement of windows with vinyl framed varieties represent substantial changes have been detrimental to the overall site integrity and have rendered this site not eligible for inclusion in the CRHR.

The National Register Bulletin 15: How to apply the National Register Criteria for Evaluation, Section VIII.: How to Evaluate the Integrity of a Property provides a step-by-

step process by which potentially eligible properties are evaluated for Integrity. The seven aspects of integrity include: *Location, Design, Setting, Materials, Workmanship, Feeling* and *Association*.

Location is the place where the historic property was constructed or the place where the historic event took place. Integrity of location refers to whether the property has been moved or relocated since its construction. A property is considered to have integrity of location if it was moved before or during its period of significance. In the present case, the period of historical significance is technically unknown, but is considered pre-1937. Based on the aerial images, topographic map depictions, and field observations, it appears that the site has been subjected to building/structure addition, but overall, the site *Location* integrity has not been substantially compromised.

Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. In the present case, all of these elements (e.g. plan, space, structure) have been altered. Once again, based on the aerial images, topographic map depictions, and field observations, the site originally included one residence and one barn. Both were razed, and replaced with a contemporary residence and garage/shop inconsistent with the *Design* parameters set forth during the property's original period of historical significance, pre-1937, and thus represent significant compromise to the site's *Design* attributes.

Setting is the physical environment of a historic property that illustrates the character of the place. 2726 West Onstott Road retains some elements of the original *Setting*. The site is currently located within an agricultural area. However, with the reduction of agricultural activities in the area, and the increase of residential development, such as the residential subdivision located adjacent to the west side of the present APE, changes in surrounding land use resulted in an alteration of the *Setting* that was once present at the Period of Historical Significance (pre-1937).

Materials are the physical elements combined in a particular pattern or configuration to form the property during a period in the past. Integrity of *Materials* determines whether or not an authentic historic resource still exists. As previously discussed, none of the original buildings exist. Both were replaced with essentially contemporary analogs in 1968 with structural additions and the utilization of *Materials* inconsistent with the period of Historical Significance (pre-1937) As well, the 1968 buildings have been subjected to contemporary upgrades. Due to these changes, the site's *Materials* have been substantially impacted.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. *Workmanship* is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles. Similar to *Materials*, the *Workmanship* of the site has been substantially compromised through episodes of demolition and construction of new buildings. Very different from the period of Historical Significance (pre-1937), the *Workmanship* of the site has been substantially compromised.

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. The extant structures at site 2726 West Onstott Road do not effectively evoke a *Feeling* of pre-1937, as the *Materials* and *Workmanship* are recognizable to contemporary viewers as commonplace, familiar, and not reminiscent of a significant historic time period.

Association is the direct link between an important historic event or person and a historic property. A property retains *Association* if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like *Feeling*, *Association* requires the presence of physical features that convey a property's historic character.

Because *Feeling* and *Association* depend on individual perceptions, their retention *alone* is never sufficient to support eligibility of a property for the National Register.

In the case of site 2726 West Onstott Road, *Association* requires that the associated event or person must be important, and thus not simply historic (i.e., eligible under Criteria 1 and/or 2 in the case of the California Register of Historical Resources).

Consequently, an evaluation of the site's integrity results in the conclusion that it no longer possesses adequate elements of integrity to support an eligibility recommendation.

According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the significance criteria.

Considering the fact that site integrity has been dramatically compromised, this site is not considered significant per any of the eligibility criteria, and is therefore not recommended a significant historical resource, or unique archaeological resource.

6. PROJECT EFFECTS

A project may have a significant impact or adverse effect on cultural resources/historic properties if the project will or could result in the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance or values of the historic resource would be materially impaired. Actions that would materially impair a cultural resource are actions that would alter or diminish those attributes of a site that qualify the site for inclusion in the California Register of Historical Resources.

Based on the specific findings detailed above under ***Cultural Resources Survey and Cultural Inventory***, no significant historical resources, or unique archaeological resources are located within the APE.

7. NATIVE AMERICAN CONSULTATION

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on December 22, 2022. The NAHC response is pending.

8. PROJECT SUMMARY

This report details the results of a cultural resources inventory survey of approximately 15.84-acres of land adjacent to the west side of West Onstott Frontage Road/State Route 99, and the east side of both Butte Bend Lane and Butte Vista Lane, within the City of Yuba City, in Sutter County, California.

The proposed project will involve subdivision of the property into 82 residential lots, followed by demolition of a residential building and associated ancillary structures, land clearing, placement of buried utilities, excavation of storm water detention basins, construction of access roads, and construction of new residential buildings.

Existing records at the NEIC document that all of the present APE had been subjected to previous archaeological investigation, and that no cultural resources had been documented within the APE. As well, the present effort included an intensive-level pedestrian survey. The pedestrian survey confirmed the presence of one historic-era site (2726 West Onstott Road) within the APE. The site was recorded on DPR 523 forms, and the site was evaluated for significance, and recommended not eligible for inclusion in the California Register of Historical Resources, under any of the relevant criteria.

Consultation was undertaken with the Native American Heritage Commission (NAHC) re. sacred land listings for the property. An information request letter was delivered to the NAHC on December 22, 2022. The NAHC response is pending.

Based on the absence of significant historical resources/unique archaeological resources/historic properties within the APE, archaeological clearance is recommended for the project/undertaking as presently proposed, although the following general provisions are considered appropriate:

1. ***Consultation in the event of inadvertent discovery of cultural material***: The present evaluation and recommendations are based on the findings of an inventory-level surface survey only. There is always the possibility that important unidentified cultural materials could be encountered on or below the surface during the course of future development activities. This possibility is particularly relevant considering the constraints generally to archaeological field survey, and particularly where past ground disturbance activities (e.g., flooding, residential/agricultural development) have obscured historic ground surface visibility, as in the present case. In the event of an inadvertent discovery of

previously unidentified cultural material, archaeological consultation should be sought immediately.

2. ***Consultation in the event of inadvertent discovery of human remains***: In the event that human remains are inadvertently encountered during trenching, grading or other ground-disturbing activity or at any time subsequently, State law shall be followed, which includes, but is not limited to, immediately contacting the County Coroner's office upon any discovery of human remains.

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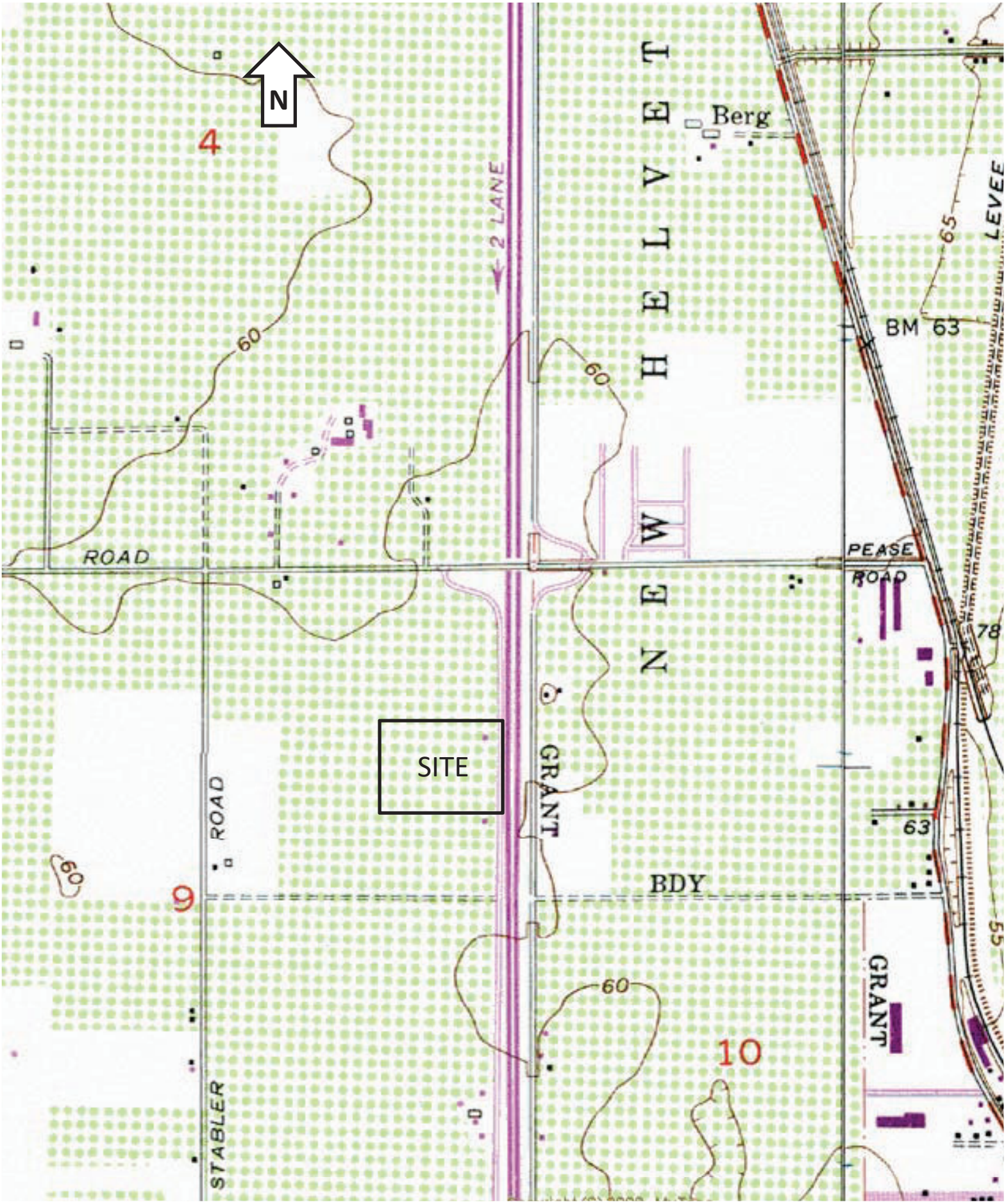
CULTURAL RESOUCES INVENTORY SURVEY

Johnson Ranch Estates Subdivision Project
circa 15.84-acres
Yuba City, Sutter County, California.

ATTACHMENTS

- Area of Potential Effects and Cultural Resources Survey Area Map
- Records Search from Northeast Information Center
- Consultation letter to the Native American Heritage Commission (NAHC)
- Response from the NAHC (Pending)
- DPR 523 for site "2726 West Onstott Road"



APE Map: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009 , Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993.

California Historical Resources Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA
SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

Northeast Information Center
1074 East Avenue, Suite F
Chico, California 95926
Phone (530) 898-6256
neinfocntr@csuchico.edu

December 23, 2022

Genesis Society
123 East Swift Creek Way
Kalispell, MT 59901
Attn: Sean Jensen

IC File # D22-430
Confidential Records Search

RE: Johnson Ranch Estates
T15N, R3E, Section 9 MDBM
USGS Sutter (1973) 7.5' & Chico (1958) 15' quadrangle maps
16 acres (Sutter County)

Dear Mr. Jensen,

In response to your request, a records search for the project cited above was conducted by examining the official maps and records for cultural resources and reports in Sutter County. Please note, the search includes the requested ¼-mile radius surrounding the project area.

RESULTS:

Resources within project area:	No resources were located in the project area
Resources within ¼-mile radius:	No resources were located in the project vicinity
Reports within project area:	NEIC-0001151 & 5754
Reports within ¼-mile radius:	NEIC-007154 & 9954

As indicated on your data request form, the locations of resources and reports are provided in the following format: ☒ Custom Maps ☐ GIS Data ☐ N/A

Resource Database Printout (list):	☐ enclosed	☐ not requested	☒ nothing listed
Resource Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Other Reports: *	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☐ enclosed	☐ not requested	☒ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Built Environment Resources Directory:	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed
Caltrans Bridge Survey:	☐ enclosed	☒ not requested	☐ nothing listed
Ethnographic Information:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Literature:	☐ enclosed	☒ not requested	☐ nothing listed
Historical Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:	☐ enclosed	☐ not requested	☒ nothing listed
GLO and/or Rancho Plat Maps:	☒ enclosed	☐ not requested	☐ nothing listed
Shipwreck Inventory:	☐ enclosed	☒ not requested	☐ nothing listed

Notes: *These are classified as studies that are missing maps or do not have a field work component. Please refer to the NRCS Soil Survey website for current soil survey information: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if it is for public distribution.

The provision of California Historical Resources Information System (CHRIS) Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archaeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation (OHP), or the State Historical Resources Commission.

Due to processing delays and other factors, it is possible that not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records

search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

An invoice will follow from Chico State Enterprises for billing purposes. Thank you for your concern in preserving California's cultural heritage, and please feel free to contact us if you have any questions or need any further information.

Sincerely,

Ashlyn Weaver

Ashlyn Weaver, M.A.
Assistant Coordinator & GIS Specialist
Northeast Information Center
(530) 898-6256

GENESIS SOCIETY

a Corporation Sole

Historic Preservation Services

December 22, 2022

Native American Heritage Commission
1550 Harbor Boulevard,
West Sacramento, California 95691

Subject: ***Johnson Ranch Estates Development Project, 15.84-acres, Sutter County, California.***

Dear Commission:

We have been requested to conduct an archaeological survey, for the above-cited project, and are requesting any information you may have concerning archaeological sites or traditional use areas for this area. Any information you might supply will be used to supplement the archaeological and historical study being prepared for this project.

Project Name:	Johnson Ranch Estates Development Project, 15.84-acres
County:	Sutter
Map:	USGS Sutter, 7.5'
Location:	Portion of Section 9 of T15N, R3E

Thanks in advance for your assistance.

Regards,

Sean Michael Jensen

Sean Michael Jensen, Administrator

(530) 680-6170

Montana Office
123 E Swift Creek Way
Kalispell, MT 59901

California Office
2398 Azalea Street
Kingsburg, CA 93631

seanjensen@comcast.net

State of California □ The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # P-51-
HRI #
Trinomial **CA-SUT-**
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page ____ **of** ____ ***Resource Name or #:** (Assigned by recorder) 2726 West Onstott Road
P1. Other Identifier:

***P2. Location:** □ **Not for Publication** √ **Unrestricted**

***a. County** Sutter **and** (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad** Sutter **Date** 1952 **T** 15N; **R** 3E; SE 1/4 □ **of** NE 1/4 □ **of Sec** 9; M.D. **B.M.**

c. Address 2726 West Onstott Frontage Road City Yuba City Zip 95991

d. UTM: Zone 10, 617828 mE/ 4336204 mN

e. Other Locational Data: From the intersection of Pease Road and State Route 99, in Yuba City, proceed southerly along West Onstott Frontage Road (paralleling the west side of State Route 99) for approximately 0.25-miles to driveway situated adjacent to the west side of road. Residence is located approximately 50-feet west of road and represents UTM Point.

P5a. Photograph or Drawing
See attached Site Sketch Map and Photographs for detailed descriptions.

***P3a. Description:**
The site consists of the existing residence and garage/shop on the Johnson property. – CONTINUED –

***P3b. Resource Attributes:** HP2-Single family property.

***P4.Resources Present:** □ Building □ Structure □ Object √ Site □ District □ Element of District □ Other (Isolates, etc.)
P5b. Description of Photo: (view, date, accession #) See photos for description

***P6. Date Constructed/Age and Source:** √ Historic □Prehistoric □ Both Historic, c. 1968.

***P7. Owner and Address:** Janice Johnson E 88 Trust, 5011 Illinois Avenue, Fair Oaks, CA 95628.

***P8. Recorded by:** (Name, affiliation, and address) Sean Jensen, Genesis Society, 123 East Swift Creek Way, Kalispell, MT 59901

***P9. Date Recorded:** 12/31/22

***P10. Survey Type:** (Describe) Intensive-level inventory survey of circa 15.84-acres.

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.")
Cultural Resources Inventory Survey Johnson Ranch Estates Subdivision Project, circa 15.84-acres, Yuba City, Sutter County, California.

***Attachments:** □NONE √Location Map □Continuation Sheet □Building, Structure, and Object Record
□Archaeological Record □District Record □Linear Feature Record □Milling Station Record □Rock Art Record
□Artifact Record □Photograph Record □ Other (List):

Continuation

***P3a. Description:**

The residence is a single-story, single-family building situated on a concrete stem wall foundation. The exterior is clad with T1-11 plywood siding. The composition asphalt shingle covered roof is situated on trusses composed of exposed 2"x4" rafters. Windows are contemporary vinyl framed varieties. A small, covered porch is situated at the building's east entrance. A contemporary central air conditioning unit is located on the building's south side, and a shed-roofed room addition (possibly started as an enclosed porch) is situated on the building's west side. This shed roof addition has facilitated a small, covered porch/carport on the building's northwest corner.

Situated a short distance southwest of the residence is a workshop/garage building. Situated on a series of poured concrete slabs, the building's exterior is clad in the same T1-11 plywood siding material as the residence. The shed roof is covered with asphalt composition shingles. A standard door is situated mid-wall on the building's south side, and the building's east wall exhibits large, sliding "barn" doors. A small, carport area is also located on the buildings northeast corner.

***B10. Significance: Theme** Residential **Area** Yuba City, CA

Period of Significance pre-1937 **Property Type** Residence **Applicable Criteria** N/A

Specific application of the criteria to historic site "2726 West Onstott Road" yields the following recommendations.

1) This site is not associated with events that have made significant contributions to the broad patterns of local or regional history or the cultural heritage of California or the United States. While residential and agricultural activities were undertaken on the property, there is no evidence that any of these buildings, or the functions undertaken therein, ever made broader contributions to history.

   For these reasons, this site is recommended not eligible per CRHR Criterion 1), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

2) This site is not associated with the lives of persons important to local, California or national history. Janice Johnson, the current owner, does not appear to have made any significant contributions to local, regional, state, or national agriculture. The same can be said for previous owners, as well as those individuals responsible for the various construction efforts.

   For these reasons, this site is recommended not eligible per CRHR Criterion 2), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

3) Evidence gleaned from the topographic maps and aerial images, combined with observations made during the pedestrian survey support a clear sequence of building events within the site. Prior to 1968, one residence and one barn exist within the property. Both of these were subsequently demolished, and the existing residence and garage/shop were constructed in 1968. Based on existing inventory data maintained by the Northeast Information Center, numerous examples of farm/ranch

structures of this architectural style exist in the county, the region, and the state. Clearly, this site is not at all rare in the California inventory, nor does this site represent a "... distinctive type..." or "...a distinguishable entity whose components may lack individual distinction."

For these reasons, this site is recommended not eligible per CRHR Criterion 3), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

4) Data recovery work involving this site could not be expected to provide unique or unusual additional information over and above that which exists in the existing site record prepared. There are no subsurface accumulations for which further evaluation or recordation might be considered appropriate. Under these circumstances, further research in the form of data recovery or additional detailed recording would not likely further our understanding of this site.

   For these reasons, this site is recommended not eligible per CRHR Criterion 4), and this site would not appear to be potentially significant per the CEQA criterion under PRC SS5024.1.

While the site would not appear to be under the evaluative criteria, the issue of site integrity must be addressed. The site, 2726 West Onstott Road, represents a late 20th century residential building and garage/shop. Evidence revealed from the background investigation and pedestrian survey showed that prior to 1968, one residence and one barn exist within the property. Both of these earlier buildings were subsequently demolished, and the existing residence and garage/shop were constructed in 1968. Further, the room addition to the residence's west side, the addition of contemporary asphalt shingles, and the wholesale replacement of windows with vinyl framed varieties represent substantial changes have been detrimental to the overall site integrity and have rendered this site not eligible for inclusion in the CRHR.

The National Register Bulletin 15: How to apply the National Register Criteria for Evaluation, Section VIII.: How to Evaluate the Integrity of a Property provides a step-by-step process by which potentially eligible properties are evaluated for Integrity. The seven aspects of integrity include: *Location, Design, Setting, Materials, Workmanship, Feeling* and *Association*.

Location is the place where the historic property was constructed or the place where the historic event took place. Integrity of location refers to whether the property has been moved or relocated since its construction. A property is considered to have integrity of location if it was moved before or during its period of significance. In the present case, the period of historical significance is technically unknown, but is considered pre-1937. Based on the aerial images, topographic map depictions, and field observations, it appears that the site has been subjected to building/structure addition, but overall, the site *Location* integrity has not been substantially compromised.

Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. In the present case, all of these elements (e.g. plan, space, structure) have been altered. Once again, based on the aerial images, topographic map depictions, and field observations, the site originally included one residence and one barn. Both were razed, and replaced with a contemporary residence and

garage/shop inconsistent with the *Design* parameters set forth during the property's original period of historical significance, pre-1937, and thus represent significant compromise to the site's *Design* attributes.

Setting is the physical environment of a historic property that illustrates the character of the place. 2726 West Onstott Road retains some elements of the original *Setting*. The site is currently located within an agricultural area. However, with the reduction of agricultural activities in the area, and the increase of residential development, such as the residential subdivision located adjacent to the west side of the present APE, changes in surrounding land use resulted in an alteration of the *Setting* that was once present at the Period of Historical Significance (pre-1937).

Materials are the physical elements combined in a particular pattern or configuration to form the property during a period in the past. Integrity of *Materials* determines whether or not an authentic historic resource still exists. As previously discussed, none of the original buildings exist. Both were replaced with essentially contemporary analogs in 1968 with structural additions and the utilization of *Materials* inconsistent with the period of Historical Significance (pre-1937) As well, the 1968 buildings have been subjected to contemporary upgrades. Due to these changes, the site's *Materials* have been substantially impacted.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. *Workmanship* is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles. Similar to *Materials*, the *Workmanship* of the site has been substantially compromised through episodes of demolition and construction of new buildings. Very different from the period of Historical Significance (pre-1937), the *Workmanship* of the site has been substantially compromised.

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. The extant structures at site 2726 West Onstott Road do not effectively evoke a *Feeling* of pre-1937, as the *Materials* and *Workmanship* are recognizable to contemporary viewers as commonplace, familiar, and not reminiscent of a significant historic time period.

Association is the direct link between an important historic event or person and a historic property. A property retains *Association* if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Like *Feeling*, *Association* requires the presence of physical features that convey a property's historic character.

Because *Feeling* and *Association* depend on individual perceptions, their retention *alone* is never sufficient to support eligibility of a property for the National Register.

In the case of site 2726 West Onstott Road, *Association* requires that the associated event or person must be important, and thus not simply historic (i.e., eligible under Criteria 1 and/or 2 in the case of the California Register of Historical Resources).

Consequently, an evaluation of the site's integrity results in the conclusion that it no longer possesses adequate elements of integrity to support an eligibility recommendation.

According to PRC Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the significance criteria.

Considering the fact that site integrity has been dramatically compromised, this site is not considered significant per any of the eligibility criteria, and is therefore not recommended a significant historical resource, or unique archaeological resource.

CONTINUATION SHEET

Property Name: 2726 West Onstott Road
Page of

Residence, view northeast

Residence, view west

CONTINUATION SHEET

Property Name: 2726 West Onstott Road
Page of

Garage/shop, view south

Garage/shop, view northeast

Appendix C

Biological Assessment and Wetland Determination for the Johnson Ranch Tentative Subdivision Map Project

Marcus Bole & Associates, January 3, 2023

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09

Marcus H. Bole & Associates
An Environmental Consulting Firm

January 3, 2023

Interwest Homes Corp
Attn: Ron Scott
950 Tharp Rd., Ste.1402
Yuba City, CAA 95993

MHM Engineering
Attn: Sean Minard
1204 E Street
Marysville, CA 95901

BIOLOGICAL ASSESSMENT AND WETLAND DETERMINATION FOR THE JOHNSON RANCH TENTATIVE SUBDIVISON TRACT MAP PROJECT, SUTTER COUNTY APNS 059-030-008 & 009, MHBA FILE 1222-2022-3852.

1.0 INTRODUCTION

On January 2, 2023, a CEQA-level Biological Assessment and Wetland Determination was conducted on a ±15.84-acre property (Action Area) of agricultural land (row crops and former orchard land) located at 2726 West Onstott Frontage Road, Yuba City, Sutter County, California. The Action Area is defined as two Sutter County Assessor's Parcel Numbers: APN 059-030-008 @ 1.36-acres and APN 059-030-009 @ 14.480-acres. The Action Area is located on the U.S. Geological survey (USGS) Sutter 7.5-minute topographic quadrangle, Township 15 North, Range 3 East, Section 9. The center of the Action Area is approximately 39.166215N, -121.637540W. The terrain elevation within the Action Area is uniformly level at 62 feet above mean sea level (msl). Currently the Action Area is fallow agricultural land containing a rural residence and garage. The site is bounded on the north and south by agricultural properties, to the west by a residential subdivision, and to the east by Highway 99 and residential subdivisions.

THREATENED, ENDANGERED, PROPOSED THREATENED OR PROPOSED ENDANGERED SPECIES EVALUATED:

Western Yellow-billed cuckoo, *Coccyzus americanus occidentalis,* Federal Threatened and State Endangered
Valley elderberry longhorn beetle, *Desmocerus californicus dimorphus,* Federal Threatened
Swainson's hawk, *Buteo swainsoni*, State Threatened
Conservancy Fairy Shrimp, *Branchinecta conservatio*, Federal Endangered
Vernal Pool Fairy Shrimp, *Branchinecta lynchi*, Federal Threatened
Vernal Pool Tadpole Shrimp, *Lepidurus packardi*, Federal Endangered
Hartweg's golden sunburst, *Pseudobahia bahiifolia*, Federal Endangered and State Endangered

CONSULTATION TO DATE

December 29, 2022. Request for Species Lists and Critical Habitat information from the United States Fish & Wildlife and the California Department of Fish & Wildlife.

December 28, 2022, Request for Species Lists and Critical Habitat Information from the California Department of Fish and Wildlife.

2.0 METHODOLOGY

Field surveys of biological resources included a reconnaissance-level inventory of plants and wildlife observed in the Action Area, habitat assessments for special status species, and a determination of wetland habitats within the Action Area. Biological and botanical surveys were conducted based on the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDB, December 2022), the United States Fish & Wildlife Service's (USFWS) IPaC Resource List, and the California Native Plant Society's (CNPS) list of rare and endangered plants. All species lists were derived from the United States Geological Survey (USGS) Sutter 7.5 minute quadrangle, and Sutter County. Based on the results of the species lists, appropriate biological and botanical surveys were conducted. Species habitat surveys were conducted during January 2023, by Marcus H. Bole & Associates (MHBA) senior wildlife biologist Marcus H. Bole. The species habitat surveys were conducted by walking all areas of the Action Area (and surrounding 500 foot buffer) and evaluating potential habitat for special-status species based on vegetation composition and structure, presence of predatory species, microclimate and available resources (e.g. prey items, nesting burrows, etc.). A general botanical survey and habitat evaluation for rare plant botanical species was conducted during January, 2023 by MHBA's senior botanist Charlene J. Bole. The general botanical survey and habitat evaluation for rare plant botanical species was conducted by walking all areas of the Action Area while taking inventory of general botanical species and searching for special-status plant species and their habitats. A determination of Waters of the U.S. was conducted on January 2, 2023 by Marcus H. Bole and was conducted under the guidelines of the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (2008).

2.1 Regulatory Requirements

The following describes federal and state environmental laws and policies that are relevant to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) review process.

Federal

Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The ESA makes it unlawful to "take" a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct". Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife". Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

Waters of the United States, Clean Water Act, Section 404

The US Army Corps of Engineers (USACE) and the U.S. Environmental Protection Agency (EPA) regulate the discharge of dredged or fill material into jurisdictional waters of the United States, under the Clean Water Act (§404). The term "waters of the United States" is an encompassing term that includes "wetlands" and "other waters". Wetlands have been defined for regulatory purposes as follows: "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3, 40 CFR 230.3). Wetlands generally include swamps, marshes, bogs, and similar areas." Other Waters of the United States (OWUS) are seasonal or perennial water bodies, including lakes, stream channels, drainages, ponds, and other surface water features, that exhibit an ordinary high-water mark but lack positive indicators for one or more of the three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) (33 CFR 328.4). The USACE may issue either individual permits on a case-by-case basis or general permits on a program level. General permits are pre-authorized and are issued to cover similar activities that are expected to cause only minimal adverse environmental effects. Nationwide permits are general permits issued to cover particular fill activities. All nationwide permits have general conditions that must be met for permits issued for a particular project, as well as specific regional conditions that apply to each nationwide permit.

Clean Water Act, Section 401

The Clean Water Act (§401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and OWUS. In accordance with the Clean Water Act (§401), criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (§402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

State of California

California Endangered Species Act

The California Endangered Species Act (CESA) is similar to the federal ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, "species of special concern" receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

California Fish and Wildlife Code

The California Fish and Game Code (CFWC) (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFWC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto".

Rare and Endangered Plants

The CNPS maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The CNPS California Rare Plant Rank (CRPR) categorizes plants as the following:

Rank 1A: Plants presumed extinct in California;
Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
Rank 3: Plants about which we need more information; and
Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (CFGC §1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Wildlife Code §1913 exempts from the 'take' prohibition 'the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way".

California Environmental Quality Act Guidelines §15380

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines §15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled based on the definition in the ESA and the section of the CFGC dealing with rare, threatened, and endangered plants and animals. The CEQA Guidelines (§15380) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (e.g. candidate species, species of concern) would occur. Thus, CEQA provides an agency with the ability to protect a species from a project's potential impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

3.0 SETTING

The Action Area consists of northern Sacramento Valley lands located approximately one mile west of the Feather River, and approximately two miles east of the Sutter Buttes, and 13 miles east of the Sacramento River, within a basin that receives winter storm runoff from a significant watershed. The basin is formed in deep sediments of the Sacramento Valley, which in turn has been uplifted along its eastern margin where it interfaces with the lower foothills of the Sierra Nevada, and along its western margin where it interfaces with the Coast Range. Topography within the Action Area is nearly flat with an elevation of approximately 62-feet above sea level. The region is characterized by a Mediterranean climate, with cool, rainy winters and hot, dry summers. The average annual temperature for the Action Area ranges from 51- 75ºF, with the hottest temperatures occurring in July, reaching on average a maximum of 94ºF. The average yearly rainfall totals for the area are approximately 19.37 inches, with the maximum annual precipitation occurring in January. The region once supported a variety of flora and fauna taxa which have been subsequently replaced with domesticated plants and a slimmer variety of animals, including raptors, reptiles and small mammals. The vegetative community descriptions and nomenclature described in this section generally follow the classification of "agriculture land – row crops and orchards". The major hydrological feature near the Action Area is the Feather River, approximately one mile east of the Action Area.

4.0 RESULTS

4.1 Description of the Existing Biological and Physical Conditions

The Action Area is located in the northern portion of Yuba City, Sutter County, California. The following describes the biological and physical conditions within the property and within the surrounding area.

4.1.1 Action Area

The Action Area is a ±15.84-acre parcel of agricultural land currently fallow. Development within the northern 1.39-acre parcel includes a rural residence, garage and paved surfaces. The

southern 14.48-acre parcel has been used exclusively for row crops and orchards. An agricultural well (no longer in service) is located within the northwest corner of the Action Area.

4.1.2 Physical & Biological Conditions

Vegetation within the Action Area consists of a mix of remnant commercial row crops (oats, barley, and vetch) with non-native ruderal gasses and forbs. There are several medium to large diameter non-native trees within the northern rural residential parcel.

Non-Native Ruderal Grasses and Forbs

The Action Area has been in continuous agricultural production for over ninety years. Currently, the Action Area is fallow land. As such, the area has reverted to supporting remnant oats, barley and various ruderal non-native grasses and forbs. Ruderal grasses and forbs are generally found throughout the Action Area and are characteristic of former agricultural lands throughout the Sutter County area. Ruderal grasses and forbs typically occur on soils consisting of fine-textured loams or clays that are somewhat poorly drained. This vegetation type is dominated by grasses including oats (*Avena fatua*), yellow star-thistle (*Centaurea solstitialis*), and weedy annuals and perennial forbs, primarily of Mediterranean origin, that have replaced native grasses as a result of past agricultural practices. Within the Action Area a sparse weedy flora is present consisting of wild oats, yellow-star thistle, filaree (*Erodium cicutarium*), field bindweed (*Convolvulus arvensis*), fiddle dock (*Rumex pulcher*), medusahead (*Taeniatherum caput-medusae*), Mediterranean barley (*Hordeum marinum*), radish (*Raphanus sativus*), Italian ryegrass (*Lolium multiflorum*), and trefoil (*Lotus corniculatus*) among others.

Native and introduced wildlife species are tolerant of human activities in former agricultural habitats. Such areas provide marginal habitat for local wildlife species. Common birds such as the house finch (*Carpodacus mexicanus*), black phoebe (*Sayornis nigricans*), American robin (*Turdus migratorius*), and mourning dove (*Zenaida macroura*) were observed in the Action Area. Mammals such as raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), jackrabbit (*Lepus californicus*), and house mouse (*Mus musculus*) are common in ruderal grassland environments.

4.2 Regional Species and Habitats of Concern

The following table is a list of species that have the potential to occur within the Action Area and is composed of special-status species within the Sutter 7.5 minute quadrangle, and Sutter County. Species lists reviewed, and which are incorporated in the following table, including the CDFW, USFWS, and CNDDB species list for the Sutter County area. Species that have the potential to occur within the Action Area are based on an evaluation of suitable habitat to support these species, CNDDB occurrences within a five mile radius of the Action Area and observations made during biological surveys. Not all species listed within the following table have the potential to occur within the Action Area based on unsuitable habitat and/or lack of recorded observations within a five mile radius of the Action Area.

Table 1. Evaluation of Listed and Proposed Species Potentially Occurring or Known to Occur in the Johnson Ranch Project Action Area

Common Name *(Scientific Name)*	**Status** Fed/State/ CNPS	**General Habitat Description**	**Species Presence/ Habitat Presence**	**Rationale**
INVERTEBRATES				
Conservancy fairy shrimp *(Branchinecta conservatio)*	FE/_/_	Moderately turbid, deep, cool-water vernal pool.	A/HA	There are no vernal pools within the Action Area. **No Effect.**
Valley elderberry longhorn beetle *(Desmocerus californicus dimorphus)*	FT/_/_	Blue elderberry shrubs usually associated with riparian areas.	A/HA	There are no elderberry shrubs within the Action Area, or within 1,000 feet of the Action Area. **No Effect.**
Vernal pool fairy shrimp *(Branchinecta lynchi)*	FT/_/_	Moderately turbid, deep, cool-water vernal pool.	A/HA	There are no vernal pools within the Action Area. **No Effect.**
Vernal pool tadpole shrimp *(Lepidurus packardi)*	FE/_/_	Vernal pools, swales, and ephemeral freshwater habitat.	A/HA	There are no vernal pools within the Action Area. **No Effect.**
California linderiella *(Linderiella occidentalis)*	_/_/_	Seasonal pools in unplowed grasslands with old alluvial soils under-lain by hardpan or in sandstone depressions.	A/HA	There are no seasonal pools within the Action Area. **No Effect.**
FISH				
Central Valley spring-run Chinook salmon (*Oncorhynchus tshawytscha)*	FT/ST/_	Sacramento River and its tributaries.	A/HA	The Feather River is over one mile east of the Action Area and is not part of this project. **No Effect.**
Central Valley steelhead *(Oncorhynchus mykiss)*	FT/_/_	Sacramento and San Joaquin Rivers and their tributaries.	A/HA	The Feather River is over one mile east of the Action Area and is not part of this project. **No Effect.**

Common Name *(Scientific Name)*	**Status** Fed/State/ CNPS	**General Habitat Description**	**Species Presence/ Habitat Presence**	**Rationale**
BIRDS				
Swainson's hawk *(Buteo swainsoni)*	MBTA/ST/_	Open grasslands, meadows, or marshes for foraging, dense-topped trees for nesting and perching.	A/MH	There is marginally suitable nesting habitat for this species in the Action Area (associated with rural residence). The hawk has been documented within the Feather Riparian habitats approximately one mile east of the Action Area. **No Effect.**
Tri-colored black bird *(Agelaius tricolor)*	MBTA/SSC/_	Marshes and swamps, agricultural irrigation ditches, blackberry brambles and grasslands	A/HA	There is no suitable habitat for this species in the Action Area. The bird has been documented within the Feather Riparian habitats approximately one mile east of the Action Area. **No Effect.**
Western yellow-billed cuckoo *(Coccyzus americanus occidentalis)*	FT/SE/_	Open woodlands, riparian areas, orchards and moist, overgrown thickets	A/HA	There is no suitable habitat for this species in the Action Area. The bird has been documented within the Feather Riparian habitats approximately one mile east of the Action Area. **No Effect.**
White-tailed kite *(Elanus leucurus)*	MBTA/_/_	Open grasslands, meadows, or marshes for foraging, dense-topped trees for nesting and perching.	A/HA	There is no suitable habitat for this species in the Action Area. None were observed during the habitat survey. **No Effect.**
Bank swallow *(Riparia riparia)*	_/ST/_	Requires vertical banks/cliffs with fine textured/sandy soils near streams, rivers, lakes, ocean to dig nesting holes.	A/HA	There is no suitable habitat for this species in the Action Area. None were observed during the habitat survey**. No Effect.**
PLANTS				
Ferris' milk-vetch *(Astragalus tener var. ferrisiae)*	_/_/1B.1	Meadows and seeps, valley and foothill grassland. Subalkaline flats, usually seen in dry, adobe soils.	A/HA	There is no suitable habitat for this species in the Action Area. None were observed during the habitat survey. **No Effect.**
Veiny monardella *(Monardella venosa)*	_/_/1B.1	Valley and Foothill Grassland, Cismontane Woodland. In heavy	A/HA	There is no suitable habitat for this species in the Action Area. None were

Common Name *(Scientific Name)*	**Status** Fed/State/ CNPS	**General Habitat Description**	**Species Presence/ Habitat Presence**	**Rationale**
		clay soils; mostly with grassland associates.		observed during the habitat survey. **No Effect.**
Recurved larkspur *(Delphinium recurvatum)*	_/_/1B.2	On alkaline soils; often in valley saltbush or valley chenopod scrub.	A/HA	There is no suitable habitat for this species in the Action Area. None were observed during the habitat survey. **No Effect.**
Hartweg's golden sunburst *(Pseudobahia bahiifolia***)**	T/T/1B.1	Valley and Foothill Grassland, Cismontane Woodland. Clay soils, often acidic. Predominately on northern slopes of knolls, but also along shady creeks or near vernal pools.	A/HA	There is no suitable habitat for this species in the Action Area. None were observed during the habitat survey. **No Effect.**

ODE DESIGNATIONS

FE = Federally-listed Endangered
FT = Federally-listed Threatened
FC = Federal Candidate Species
BCC = Federal Bird of Conservation Concern
MBTA = Protected by the federal Migratory Bird Treaty Act
SE = State-listed Endangered
ST = State-listed Threatened
SR = State-listed Rare
SSC = State Species of Special Concern
S1 = State Critically Imperiled
S2 = State Imperiled
S3 = State Vulnerable
S4 = State Apparently Secure
SSC = CDFW Species of Special Concern
FP =CDFW Fully Protected Species

A = Species Absent
P = Species Present
HA = Habitat Absent
HP = Habitat Present
CH = Critical Habitat
MH = Marginal Habitat
CNPS 1B = Rare or Endangered in California or elsewhere
CNPS 2 = Rare or Endangered in California, more common elsewhere
CNPS 3 = More information is needed
CNPS 4 = Plants with limited distribution
0.1 =Seriously Threatened
0.2 = Fairly Threatened
0.3 = Not very Threatened

Migratory Birds

Nesting birds are protected under the MBTA (16 USC 703) and the CFWC (3503). The MBTA (16 USC §703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the USFWS. The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e. exotic) species (50 Code of Federal Regulations §10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA. The CFWC (§3503.5) states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or

eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto". Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The CFWC (§3503) also states that "it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto".

Survey Results

During the migratory bird and raptor survey conducted during January 2023, there were no observed nests within ¼ mile of the project area. No migratory avian species were observed within the project area. Surveys were conducted outside of the normal nesting season for all birds of concern (February 1 through August 31).

Mitigation

Preconstruction nesting bird surveys will be required during the nesting season (February 1 through August 31) prior to demolition of the buildings/structures or onsite trees. The appropriate area to be surveyed and timing of the survey may vary depending on the activity and species that could be affected. If no active nests are found during focused surveys, no further action under this measure will be required. If an active nest is located during the preconstruction surveys, the biologist will notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives will be evaluated and implemented to the extent feasible. If avoidance is not feasible, construction will be prohibited within a minimum of 100 feet of the nest to avoid disturbance until the nest is no longer active. These recommended buffer areas may be reduced or expanded through consultation with CDFW. Monitoring of all occupied nests shall be conducted by a qualified biologist during construction activities to adjust the 100-foot buffer if agitated behavior by the nesting bird is observed

5.0 RESULTS: PERMITS AND TECHNICAL STUDIES FOR SPECIAL LAWS OR CONDITIONS

5.1 Federal Endangered Species Act Consultation Summary

The USFWS was contacted during December 2022 for a list of endangered, threatened, sensitive and rare species, and their habitats within the Action Area. The list was derived from special-status species that occur or have the potential to occur within the USGS Sutter 7.5" Quadrangle and Sutter County. The list was referenced to determine appropriate biological and botanical surveys and potential species occurrence within the Action Area.

5.2 Federal Fisheries and Essential Fish Habitat Consultation Summary

Essential fish habitat (EFH) means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (*Magnuson-Stevens Fishery Conservation and Management Act (MSA) §3*). There is no habitat within the Action Area that provides "waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity," or special-status fish species managed under a fishery council (i.e. chinook and Coho). Therefore there is no EFH or the need for federal fisheries consultation.

5.3 California Endangered Species Act Consultation Summary

The CDFW was consulted during December 2022 for a list of endangered, threatened, sensitive and rare species, and their habitats within the Action Area. The list was derived from special-status species that occur or have the potential to occur within the USGS Sutter 7.5" Quadrangle and Sutter County. The list was referenced to determine appropriate biological and botanical surveys and potential species occurrence within the Action Area.

5.4 Wetlands and Others Water Coordination Summary

MHBA conducted a determination of Waters of the U.S. within the Action Area. Surveys were conducted during December 2022 by MHBA's Marcus H. Bole. The surveys involved an examination of botanical resources, soils, hydrological features, and determination of wetland characteristics based on the *United States Army Corps of Engineers Wetlands Delineation Manual (1987); the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (2008); the U.S. *Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* (2007); the *U.S. Army Corps of Engineers Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region* (2011); and the *U.S. Army Corps of Engineers Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (2008).

5.5 Determination of Waters of the United States

The intent of this determination is to identify wetlands and "Other Waters of the United States" that are present within the Action Area that could fall under the regulatory jurisdiction of the U. S. Army Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. The *1987 Corps of Engineers Wetlands Delineation Manual* identifies several methodologies and combinations of methodologies that can be utilized in making jurisdictional determinations. Marcus H. Bole & Associates has employed the Routine On-Site Determination methodology for this study (as supplemented by the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region,* dated September 2008). The Routine On-Site Determination method uses a three-parameter approach (vegetation, soils and hydrology) to identify and delineate the boundaries of jurisdictional wetlands. To be considered a wetland, all three positive wetland parameters must be present. These parameters include (1) a dominance of wetland vegetation, (2) a presence of hydric soils, and (3) hydrologic conditions that result in periods of inundation or saturation on the surface from flooding or ponding. Further description of these parameters is provided below:

1) Vegetation. Wetland vegetation includes those plants that possess physiological traits that allow them to grow and persist in soils subject to inundation and anaerobic soil conditions. Plant species are classified according to their probability of being associated with wetlands. Obligate (OBL) wetland plant species almost always occur in wetlands (more than 99 percent of the time), facultative wetland (FACW) plant species occur in wetlands most of the time (67 to 99 percent), and facultative (FAC) plant species have about an equal chance (33 to 66 percent) of occurring in wetlands as in uplands. For this study, vegetation was considered to meet the vegetation criteria if more than 50% of the vegetative cover was FAC or wetter. No wetland plant species were identified within the Action Area.

2) Hydric Soils. Hydric soils are saturated, flooded, or ponded in the upper stratum long enough during the growing season to develop anaerobic conditions and favor the growth of wetland plants. Hydric soils include gleyed soils (soils with gray colors), or usually display indicators such as low chroma values, redoximorphic features, iron, or manganese concretions, or a combination of these indicators. Low chroma values are generally defined as having a value of 2 or less using the Munsell Soil Notations (Munsell, 1994). For this study a soil was considered to meet the hydric soil criteria for color if it had a chroma value of one or a chroma of two with redoximorphic features, or if the soil exhibited iron or manganese concretions. Redoximorphic features (commonly referred to as mottles) are areas in the soils that have brighter (higher chroma) or grayer (lower chroma) colors than the soil matrix. Redoximorphic features are the result of the oxidation and reduction process that occurs under anaerobic conditions. Iron and manganese concretions form during the oxidation-reduction process, when iron and manganese in suspension are sometimes segregated as oxides into concretions or soft masses. These accumulations are usually black or dark brown. Concretions 2 mm in diameter occurring within 7.5 cm of the surface are evidence that the soil is saturated for long periods near the surface**.** Onsite soils were identified as Liveoak sandy clay loam, 0 to 2 percent slopes and Conejo loam, 0 to 1 percent slopes. These are not "hydric" soils and no indication of hydric soil conditions were observed within or near the Action Area.

3) Hydrology. Wetlands by definition are seasonally inundated or saturated at or near the surface. In order for an area to have wetland hydrology, it has to be inundated or saturated for 5% of the growing season (approximately 12 days) (USDA, 1967). Indicators include visual soil saturation, flooding, watermarks, drainage patterns, encrusted sediment and plant deposits, cryptogrammic lichens, and algal mats. There are no natural hydrological features within or near the Action Area.

Wetland Determination Results

Using the methodologies described in the *1987 Wetland Delineation Manual*, Marcus H. Bole & Associates found no evidence of seasonal or perennial wetland habitats within the Action Area.

6.0 CONCLUSIONS

According to the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) guidelines, a project is normally considered to have a significant impact on wildlife if it will interfere substantially with the movement of any resident or migratory fish or wildlife species; or substantially diminishes habitat quantity or quality for dependent wildlife and plant species. Impacts to special status species and their associated habitats are also considered significant if the impact would reduce or adversely modify a habitat of recognized value to a sensitive wildlife species or to an individual of such species. This guideline applies even to those species not formally listed as threatened, rare or endangered by the California Department of Fish & Wildlife and the United States Fish and Wildlife Service. Project implementation will not result in impacts to resident or migratory wildlife, special status plant or wildlife species, or any associated protected habitat.

This concludes our Biological Assessment and Wetland Determination of the ±15.84-acre Action Area of agricultural land located at 2726 W. Onstott Frontage Road, Yuba City, Sutter County, California. The Action Area is located on the U.S. Geological survey (USGS) Sutter City 7.5-minute topographic quadrangle, Section 9, Township 15 North, Range 3 East. If you have any questions concerning our findings or recommendations please feel free to contact me directly at: Marcus H. Bole & Associates, Attn: Marcus Bole, 104 Brock Drive, Wheatland, CA 95692, phone 530-633-0117, fax 530-633-0119, email: mbole@aol.com.

Respectfully Submitted:

Charlene J. Bole, M.S, Botanist
Senior Wildlife Biologist
Marcus H. Bole & Associates

Marcus H. Bole, M.S, Wildlife Biologist
Senior Wildlife Biologist
Marcus H. Bole & Associates

LIST OF ATTACHMENTS:

APPENDIX A: MAPS & PHOTO PLATE

APPENDIX B: CNDDB & IPaC DATBASES

APPENDIX C: SOIL DATA

APPENDIX D: HISTORICAL AERIALS

7.0 REFERENCES

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APPENDIX A: MAPS & PHOTOS

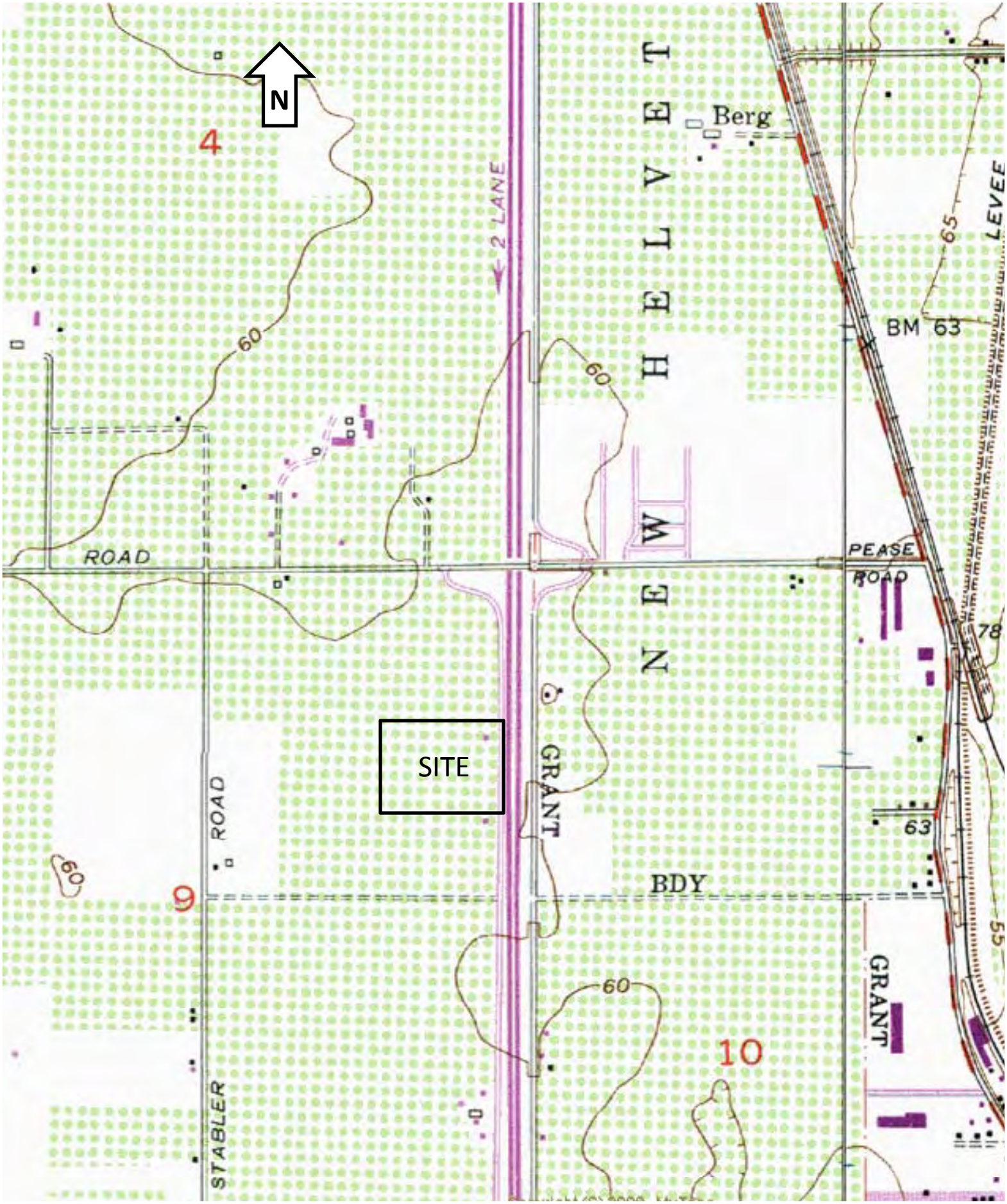

Figure 1, Vicinity Map: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993.

Figure 2, Aerial Display: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993.

MARCUS H. BOLE & ASSOCIATES
104 Brock Drive, Wheatland, CA 95692
(530) 633-0117, email: mbole@aol.com

SITE: Johnson Ranch Project
ITEM: Residence, garage and fields
DATE: 1/2/2023 PLATE: 1

MARCUS H. BOLE & ASSOCIATES
104 Brock Drive, Wheatland, CA 95692
(530) 633-0117, email: mbole@aol.com

SITE: Johnson Ranch Project
ITEM: Agricultural well and fields
DATE: 1/2/2023 PLATE: 2

APPENDIX B: CNDDB & FEDERAL DATABASES

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To: December 29, 2022
Project Code: 2023-0029057
Project Name: Johnson Ranch Tentative Subdivision Map

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see https://www.fws.gov/birds/policies-and-regulations.php.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Project Code: 2023-0029057
Project Name: Johnson Ranch Tentative Subdivision Map
Project Type: New Constr - Above Ground
Project Description: Sutter County APNs 059-030-008 & 009, a 15.84-acrea Project Area
Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.1669021,-121.63728860735577,14z

Counties: Sutter County, California

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp *Lepidurus packardi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

Flowering Plants

NAME	STATUS
Hartweg's Golden Sunburst *Pseudobahia bahiifolia* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1704	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

IPaC User Contact Information

Agency: Bole & Associates
Name: Marcus Bole
Address: 104 Brock Drive
City: Wheatland
State: CA
Zip: 95692
Email mbole@aol.com
Phone: 5306330117

FIGURE 3: CNDDB Map, Johnson Ranch Project, site located in Section 9, T15N, R3E, Sutter 7.5' USGS Quadrangle. Approximately 39.166215N, -121.637540W. APNs 059-030-008 & 009 (15.84-acres), 2726 W. Onstott Frontage Road Yuba City, CA 95993. 014-850-014, 27.17-acres. Sensitive habitats located along Feather River.

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

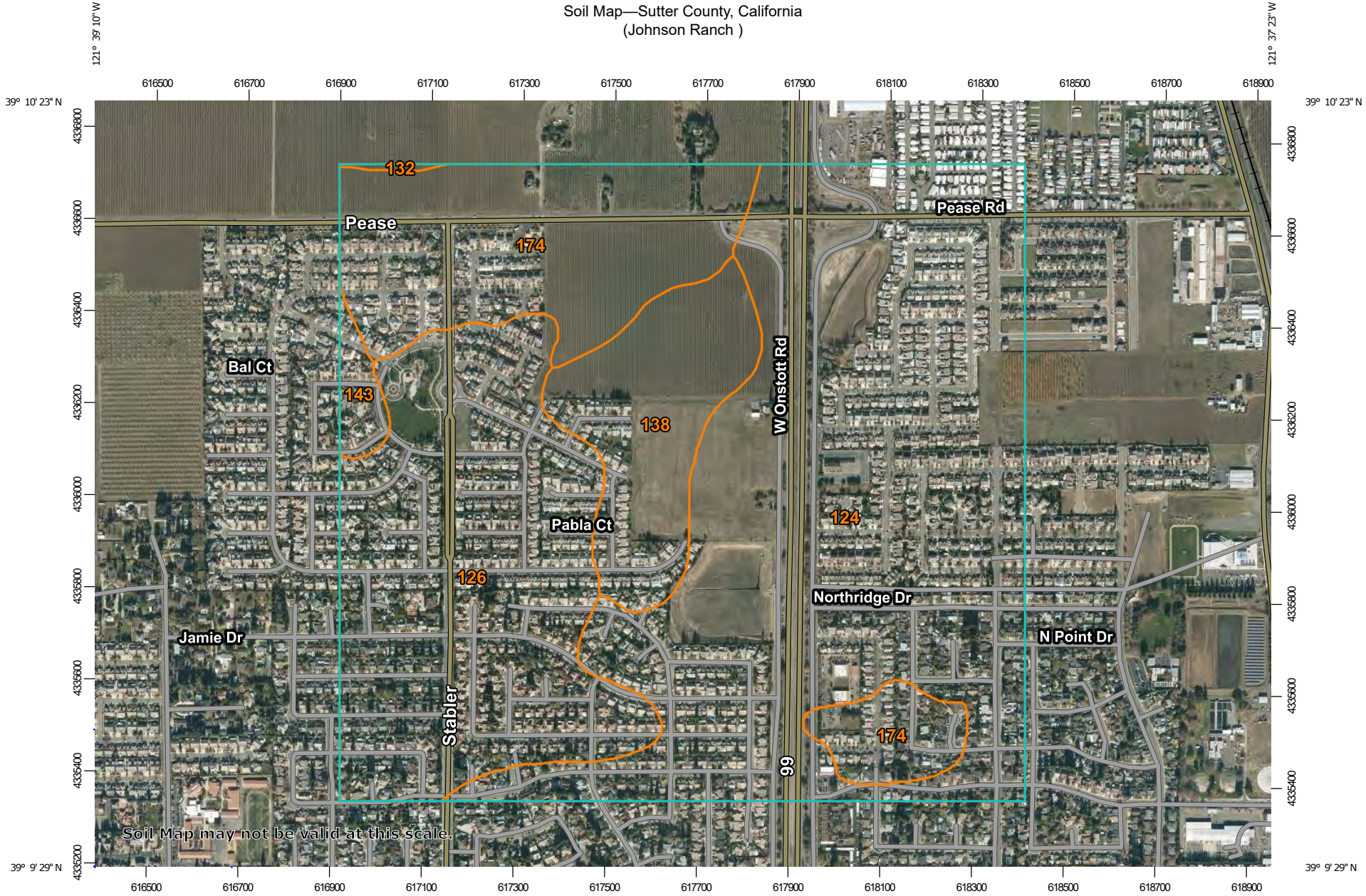
Query Criteria: Quad IS (Sutter (3912126))
 AND (Federal Listing Status IS (Endangered OR Threatened OR Proposed Endangered OR Proposed Threatened OR Candidate OR All CNDDB element occurrences OR Delisted) OR State Listing Status IS (Endangered OR Threatened OR Rare OR All CNDDB element occurrences OR Delisted OR Candidate Endangered OR Candidate Threatened))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Baker's navarretia *Navarretia leucocephala ssp. bakeri*	PDPLM0C0E1	None	None	G4T2	S2	1B.1
bank swallow *Riparia riparia*	ABPAU08010	None	Threatened	G5	S2	
chinook salmon - Central Valley spring-run ESU *Oncorhynchus tshawytscha pop. 11*	AFCHA0205L	Threatened	Threatened	G5T2Q	S2	
Ferris' milk-vetch *Astragalus tener var. ferrisiae*	PDFAB0F8R3	None	None	G2T1	S1	1B.1
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
Great Valley Mixed Riparian Forest *Great Valley Mixed Riparian Forest*	CTT61420CA	None	None	G2	S2.2	
green sturgeon - southern DPS *Acipenser medirostris pop. 1*	AFCAA01031	Threatened	None	G2T1	S1	
Hartweg's golden sunburst *Pseudobahia bahiifolia*	PDAST7P010	Endangered	Endangered	G1	S1	1B.1
Northern Hardpan Vernal Pool *Northern Hardpan Vernal Pool*	CTT44110CA	None	None	G3	S3.1	
recurved larkspur *Delphinium recurvatum*	PDRAN0B1J0	None	None	G2?	S2?	1B.2
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2T3	S3	
veiny monardella *Monardella venosa*	PDLAM18082	None	None	G1	S1	1B.1

Record Count: 14

SOIL DATA

Soil Map—Sutter County, California
(Johnson Ranch)



Map Scale: 1:11,700 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 150 300 600 900

Feet
0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Sutter County, California
Survey Area Data: Version 20, Sep 1, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 6, 2018—Dec 12, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

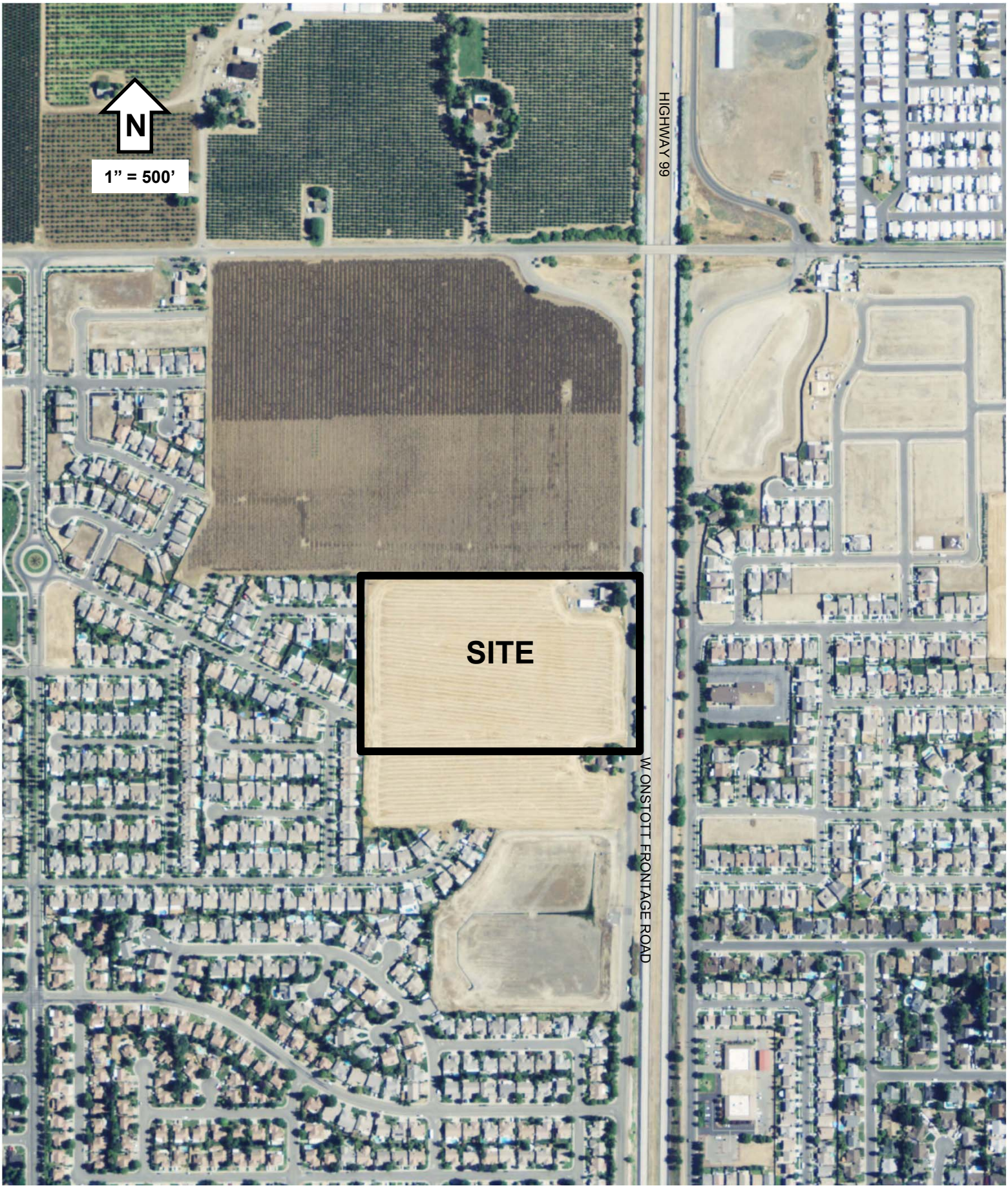
Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
124	Conejo loam, 0 to 1 percent slopes, MLRA 17	243.3	47.4%
126	Conejo-Tisdale complex, 0 percent slopes, MLRA 17	128.8	25.1%
132	Gridley clay loam, 0 to 1 percent slopes	0.6	0.1%
138	Liveoak sandy clay loam, 0 to 2 percent slopes	46.2	9.0%
143	Marcum-Gridley clay loams, 0 to 1 percent slopes	6.1	1.2%
174	Tisdale clay loam, 0 to 2 percent slopes	88.1	17.2%
Totals for Area of Interest		**513.2**	**100.0%**

APPENDIX D: HISTORICAL AERIALS

2020 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.

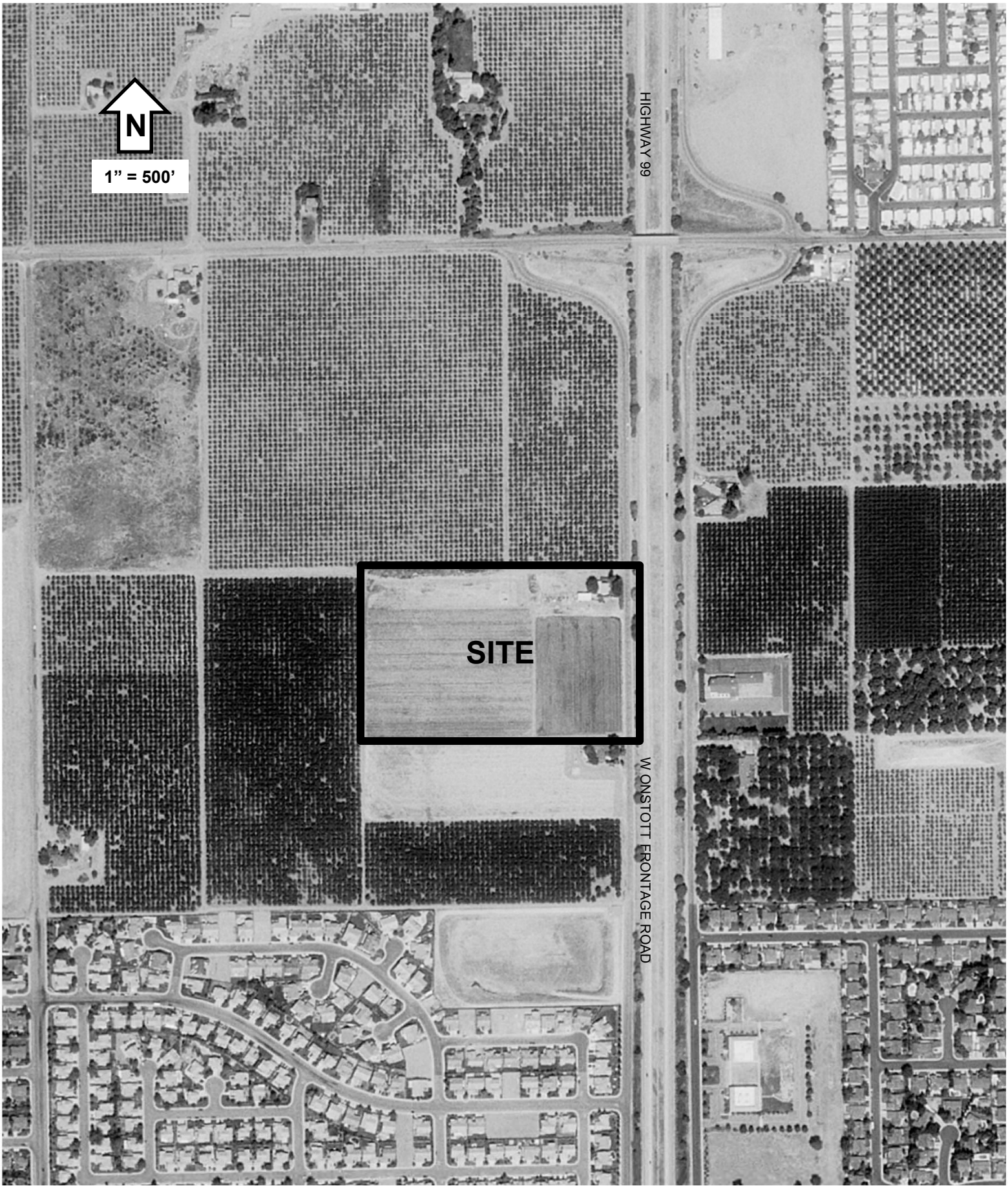
2016 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.



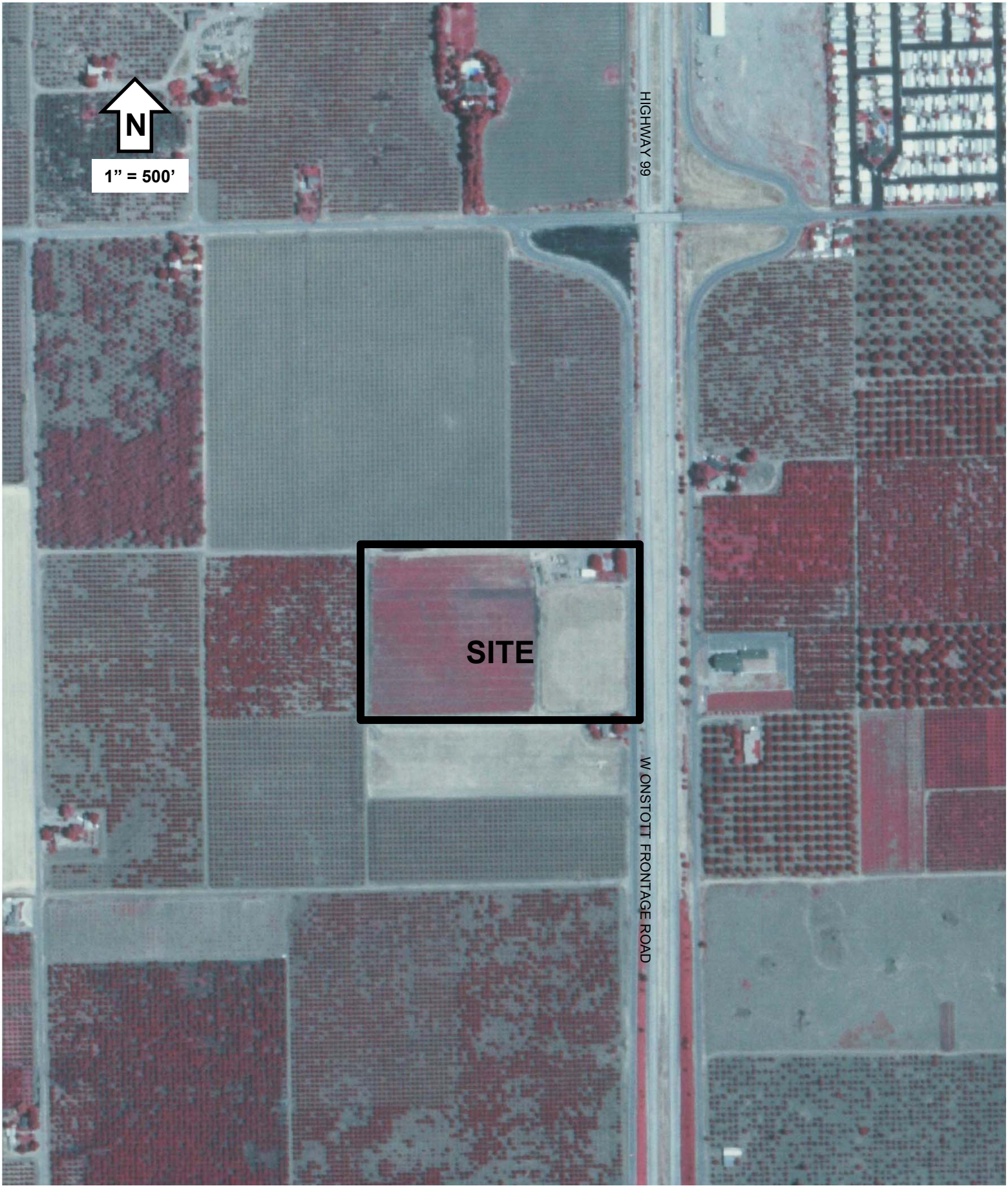
2012 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.

2009 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.

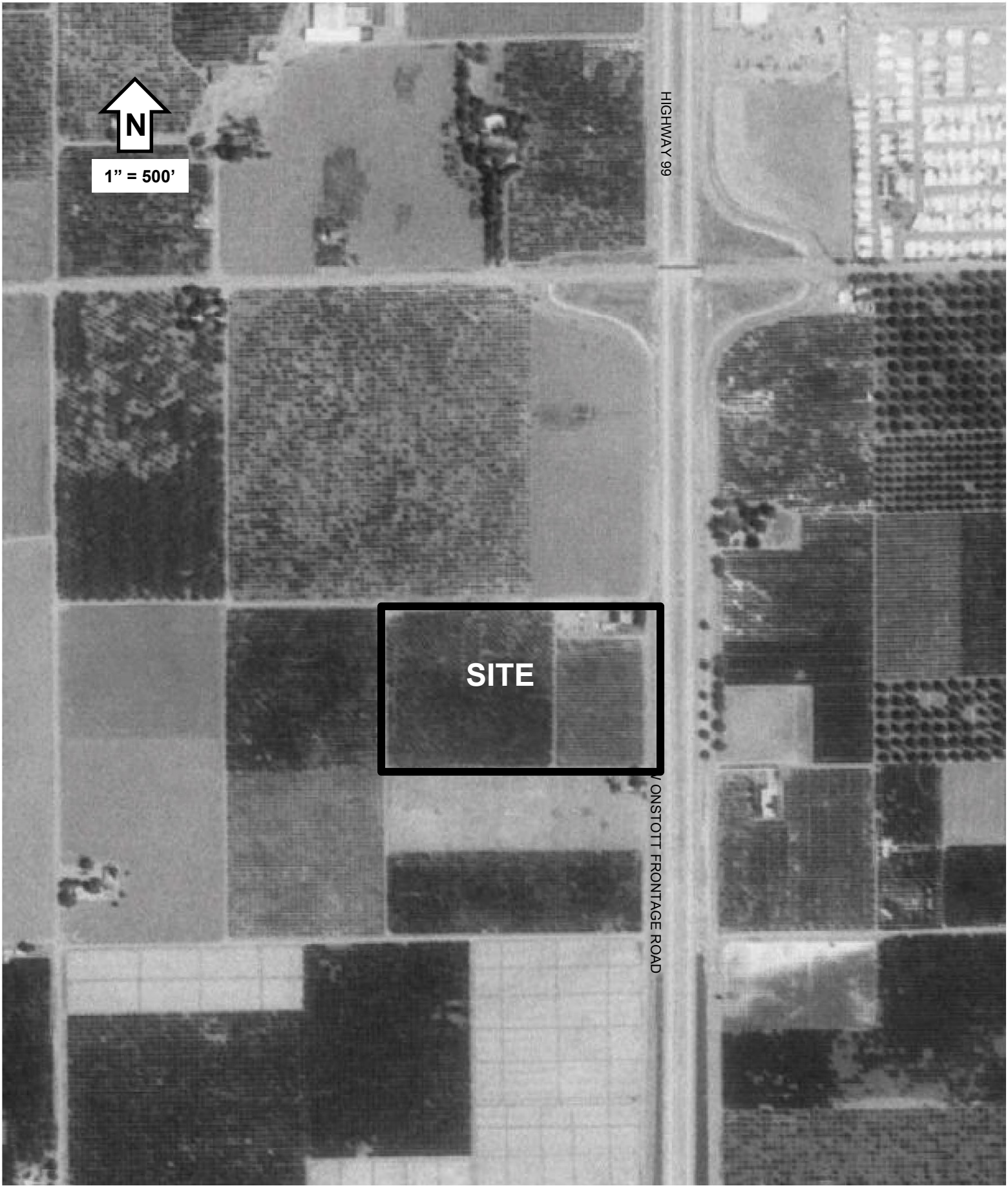
2006 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.



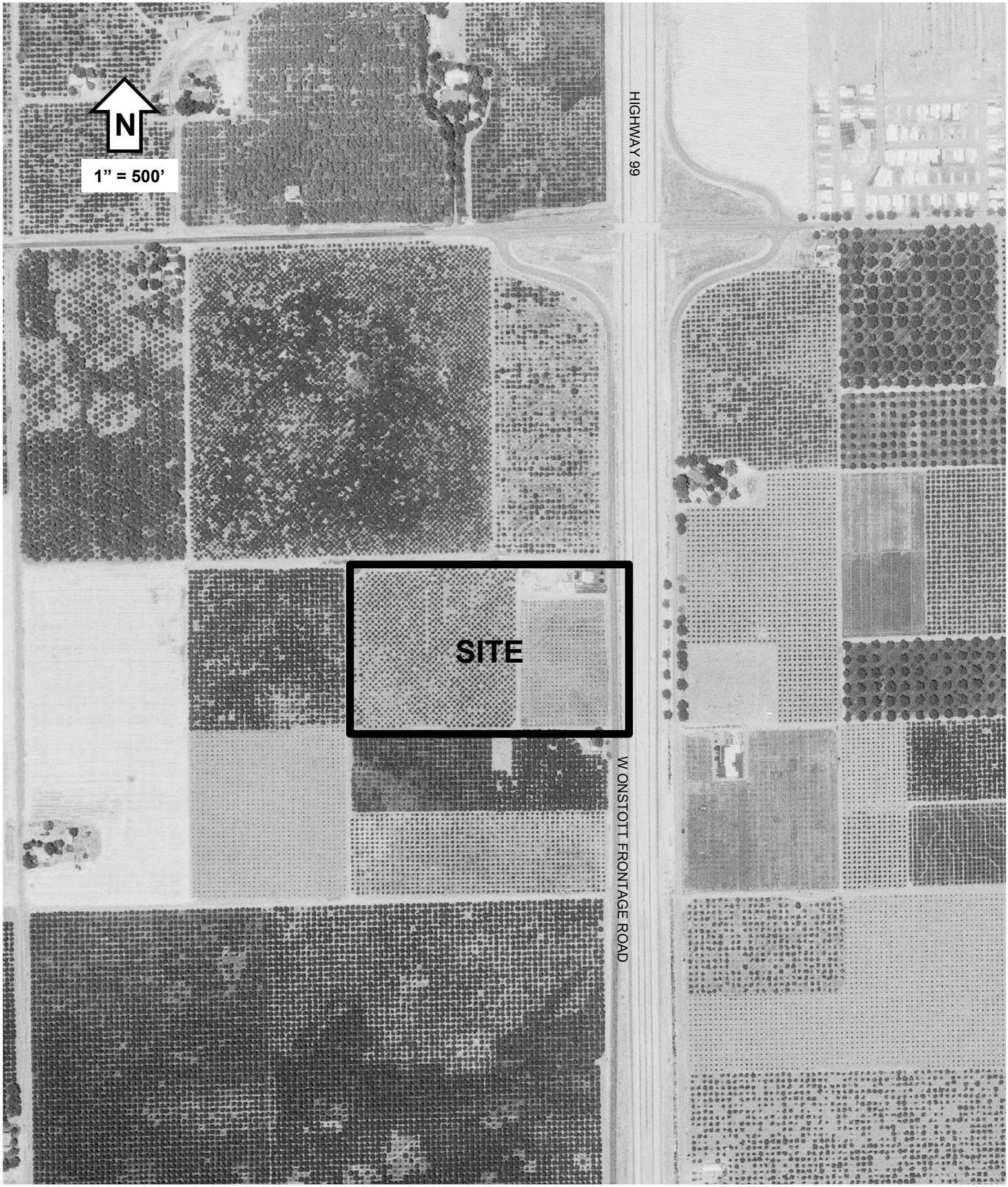
1998 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.



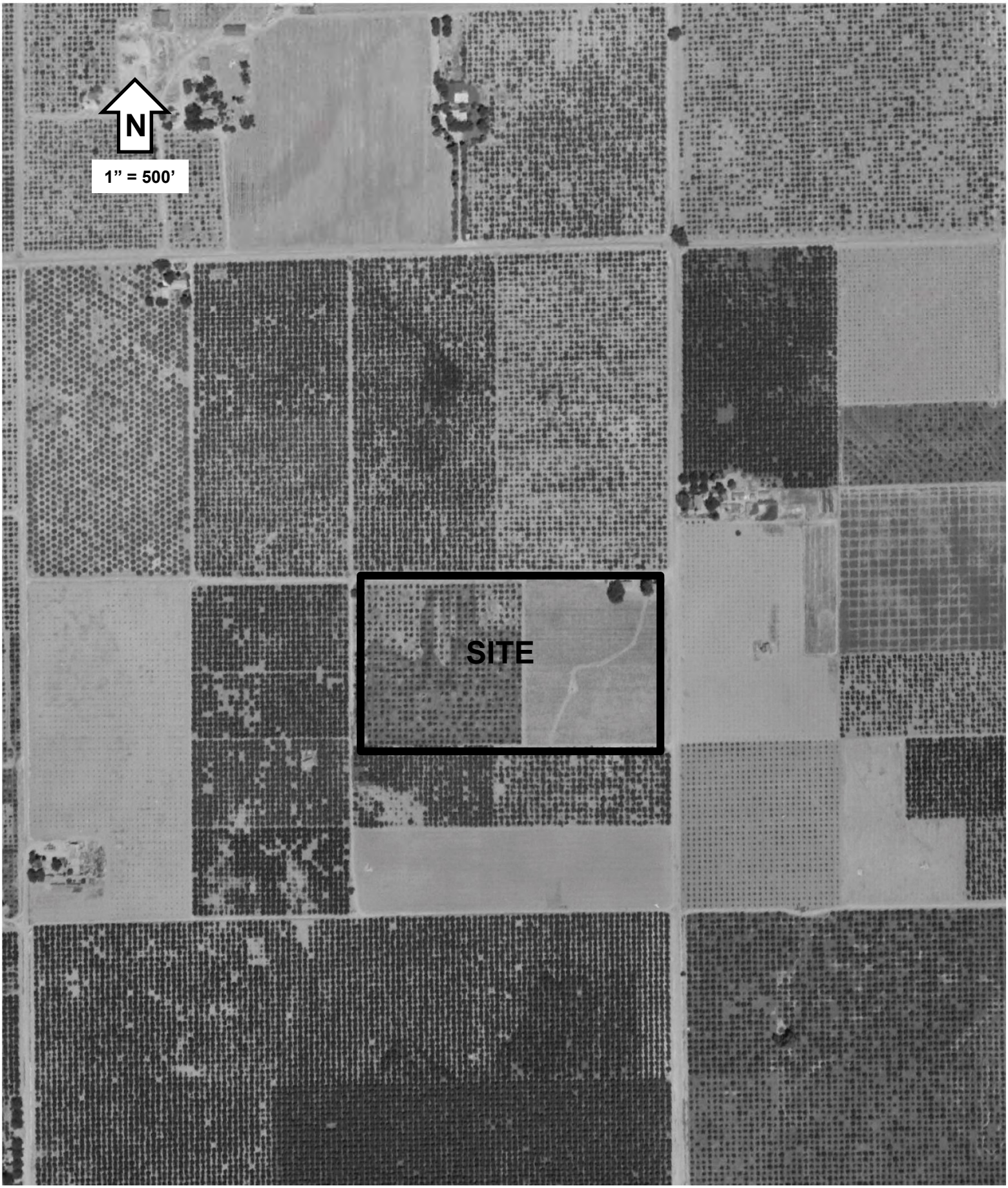
1984 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.



1977 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland with residence and garage.



1973 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5" USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as orchard land with residence and garage.



1952 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as agricultural cropland and orchards. No buildings shown.

1937 Historical Aerial: Johnson Ranch Estates Tentative Subdivision, Sutter County APNs 059-030-008 & 009, Approximately 15.84-acres located at 39.166215N, 121.637540W, Section 9, Township 15 North, Range 3 East, Sutter 7.5” USGS Quadrangle. 2726 West Onstott Frontage Road, Yuba City, Sutter County, CA 95993. Area shown as orchard land.

Appendix D

Focused Traffic Impact Analysis for Johnson Ranch Subdivision

KD Anderson & Associates, Inc., March 16, 2023

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09

FOCUSED TRAFFIC IMPACT ANALYSIS

FOR

JOHNSON RANCH SUBDIVISION

Yuba City, CA

Prepared For:

Interwest Homes Corporation
1450 Thorp Road, #1402
Yuba City, CA 95993

Prepared By:

KD Anderson & Associates, Inc.
3853 Taylor Road, Suite G
Loomis, CA 95650
(916) 660-1555

March 16, 2023

4016-01

FOCUSED TRAFFIC IMPACT ANALYSIS FOR
JOHNSON RANCH SUBDIVISION
Yuba City, CA

TABLE OF CONTENTS

KDA

FOCUSED TRAFFIC IMPACT ANALYSIS FOR
JOHNSON RANCH SUBDIVISION
Yuba City, CA

INTRODUCTION

This report summarizes KD Anderson & Associates analysis of the potential transportation impacts and traffic operational effects associated with the Johnson Ranch Subdivision in Yuba City, California. The Johnson Ranch Subdivision is located in north Yuba City, adjacent to W. Onstott Road about one mile north of Queens Avenue. Figure 1 presents the site relative to the vicinity and the proposed tentative map is shown in Figure 2.

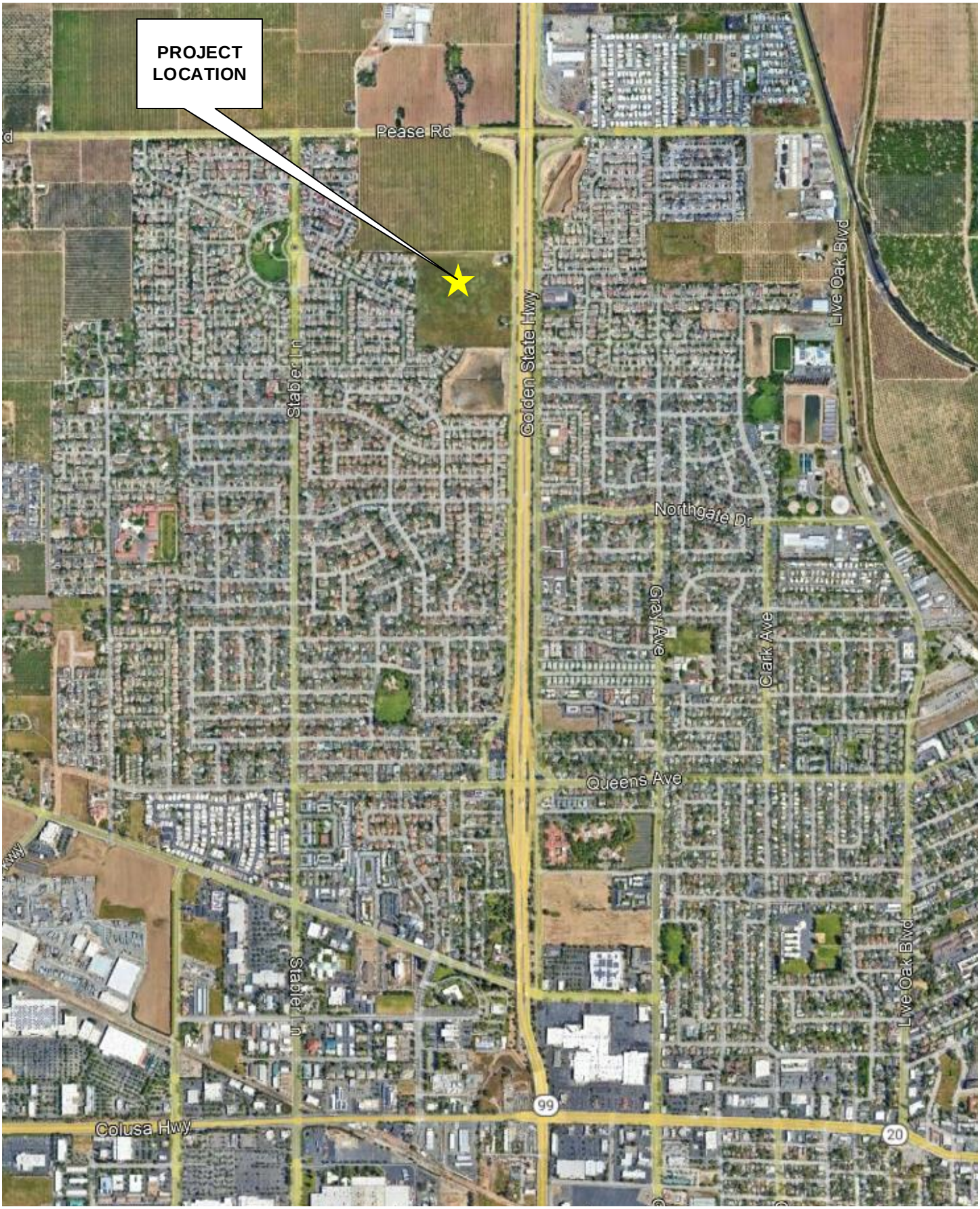
Project Description. Johnson Ranch will occupy roughly 16 acres located west of W. Onstott Road and north of Butte Vista Lane. The project proposes 82 single family residential lots. Access to the local circulation system is planned at two intersections, along W. Onstott Road and along the extension of Butte Vista Lane.

Analysis Approach. The purpose of this focused analysis is to analyze the following:

1) Pease Road / W. Onstott Road – Determine whether any improvements are needed based on PM peak hour traffic under Existing plus Project and Cumulative plus Project conditions.

2) Butte Vista Lane / Stabler Avenue – Evaluate the roundabout capacity and LOS under Existing plus Project PM peak hour conditions. Provide a description of the capacity and the consistency with the Butte Vista Neighborhood Plan under Existing plus Project PM peak hour conditions.

3) Queens Avenue / Peach Tree Lane – Identify a proposed mitigation for unacceptable LOS and determine a 'fair share percentage' based on Existing plus Project PM conditions.

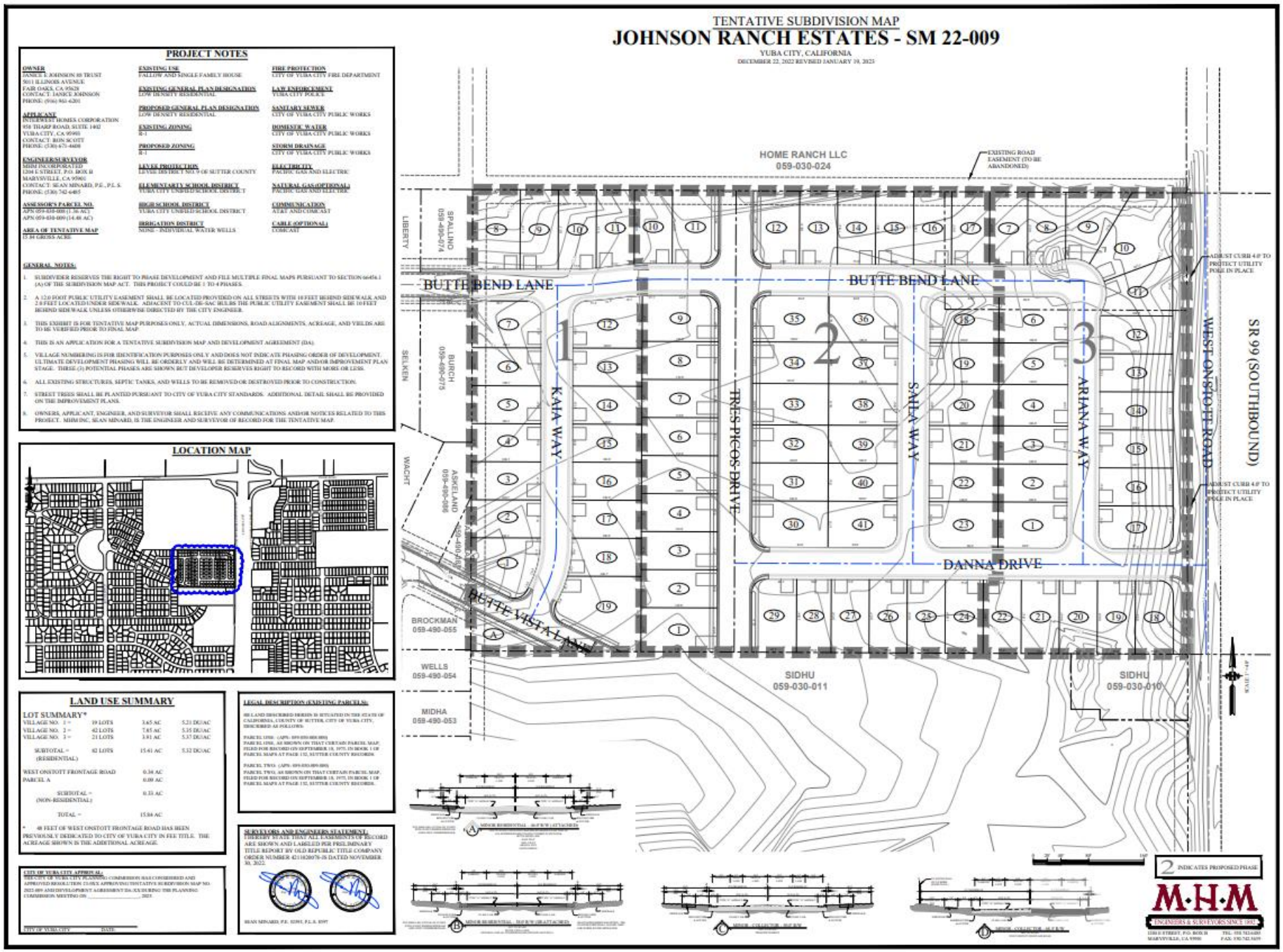


VICINITY MAP

KD Anderson & Associates, Inc.
Transportation Engineers

4016-01 RA 3/14/2017

figure 1



SITE PLAN

KD Anderson & Associates, Inc.
Transportation Engineers

4016-01 RA 3/14/2017

figure 2

EXISTING SETTING

Study Area

This traffic impact study presents analyses of traffic operating conditions at three (3) existing intersections within the area that may be affected by the proposed project. The limits of the study area were identified through discussions with Yuba City staff based on their knowledge of the community and the results of previous traffic studies conducted for development in Yuba City.

The **Queens Avenue / Peach Tree Lane intersection** is a "tee" intersection controlled by a stop sign on the southbound single lane Peach Tree Lane approach. The eastbound approach along Queens Avenue includes a single through lane with a left turn lane to access Peach Tree Lane. The 80-foot left turn lane is preceded by a two-way-left-turn-lane (TWLTL). The westbound Queens Avenue approach is a single shared through-right lane. Bike lanes are present along Queens Avenue and sidewalks are available on all approaches. A crosswalk is present along the Peach Tree Lane approach.

The **Pease Road / W. Onstott Road intersection** is a "tee" intersection controlled by a stop sign on the northbound single lane W. Onstott Road approach. Both east- and westbound approaches along Pease Road are single lanes. Bike lanes are present along Pease Road and there are no sidewalks in the intersection vicinity.

The **Stabler Lane / Butte Vista Lane intersection** is a single lane roundabout located within the Butte Vista Neighborhood with yield control on all approaches. Sidewalks are present throughout the area with the sidewalk along the west side of Stabler Lane separated by landscaping. Crosswalks are present along the east and south approaches to the roundabout.

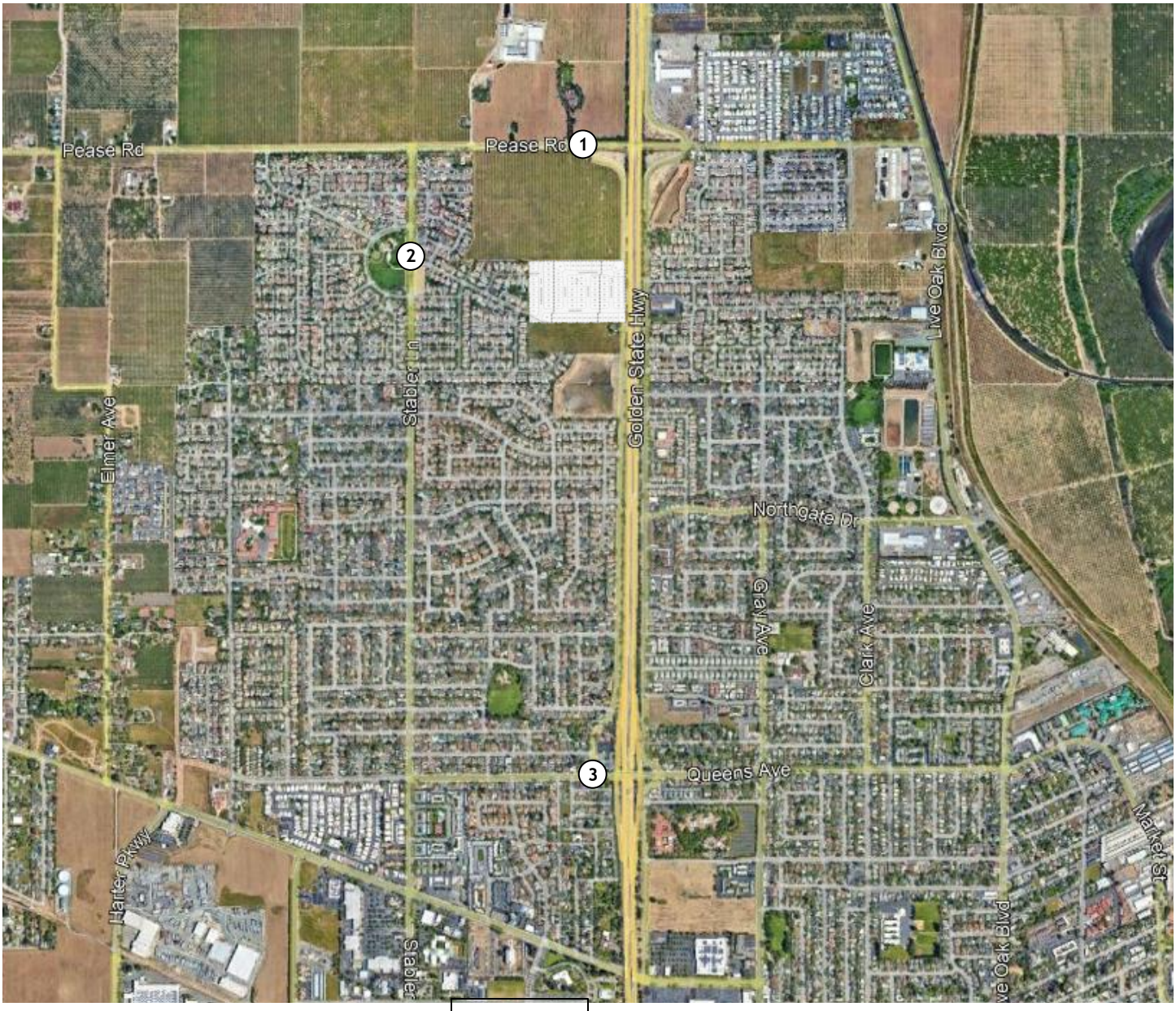
Existing Traffic Volumes

Traffic Counts. Traffic counts conducted in 2019 pre-Covid were used as the basis for current peak hour traffic volume information. Figure 3 presents the existing p.m. traffic conditions.

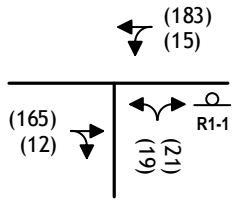
Level of Service

Level of Service. To quantitatively evaluate traffic conditions and to provide a basis for comparison of operating conditions with and without project generated traffic, Levels of Service were determined at study area intersections.

"Level of Service" (LOS) is a quantitative measure of traffic operating conditions whereby a letter grade "A" through "F" is assigned to an intersection. LOS "A" through "F" represents progressively worsening traffic conditions. The characteristics associated with the various LOS for intersections are presented in Table 1. The City of Yuba City General Plan has established LOS "D" measured over the peak hour as the minimum standard for City streets, with specific exceptions identified where conditions in excess of the LOS D standard will be acceptable.

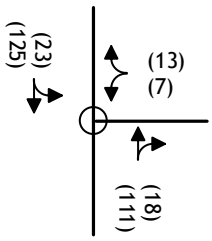


1



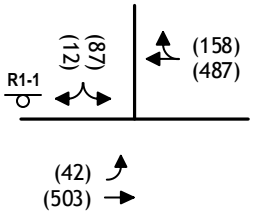
W Onstott Rd/ Pease Rd

2



Stabler Ln/ Butte Vista Ln

3



W Onstott Frontage Rd/ Queens Ave

Legend

(XX) PM Peak Hour Volume

R1-1 Stop Sign

Signalized Intersection

NORTH

N.T.S.

EXISTING TRAFFIC VOLUMES AND LANE CONFIGURATIONS

KD Anderson & Associates, Inc.
Transportation Engineers

4016-01 RA 3/14/2017

figure 3

Levels of Service were calculated for this study using the methodologies contained in the *Highway Capacity Manual, 6th Edition (HCM)*. At unsignalized intersections the Level of Service is based on the length of the average delay experienced by motorists who must yield the right of way before turning or continuing through an intersection. Level of Service was calculated using *Synchro* software, Version 11 while *SIDRA* software, Version 9 was used to analyze the roundabout.

TABLE 1
LEVEL OF SERVICE DEFINITIONS

Level of Service	Signalized Intersection	Unsignalized Intersection	Roadway (Daily)
"A"	Uncongested operations, all queues clear in a single-signal cycle. Delay ≤ 10.0 sec	Little or no delay. Delay ≤ 10 sec/veh	Completely free flow.
"B"	Uncongested operations, all queues clear in a single cycle. Delay > 10.0 sec and ≤ 20.0 sec	Short traffic delays. Delay > 10 sec/veh and ≤ 15 sec/veh	Free flow, presence of other vehicles noticeable.
"C"	Light congestion, occasional backups on critical approaches. Delay > 20.0 sec and ≤ 35.0 sec	Average traffic delays. Delay > 15 sec/veh and ≤ 25 sec/veh	Ability to maneuver and select operating speed affected.
"D"	Significant congestions of critical approaches but intersection functional. Cars required to wait through more than one cycle during short peaks. No long queues formed. Delay > 35.0 sec and ≤ 55.0 sec	Long traffic delays. Delay > 25 sec/veh and ≤ 35 sec/veh	Unstable flow, speeds and ability to maneuver restricted.
"E"	Severe congestion with some long-standing queues on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements. Traffic queue may block nearby intersection(s) upstream of critical approach(es). Delay > 55.0 sec and ≤ 80.0 sec	Very long traffic delays, failure, extreme congestion. Delay > 35 sec/veh and ≤ 50 sec/veh	At or near capacity, flow quite unstable.
"F"	Total breakdown, stop-and-go operation. Delay > 80.0 sec	Intersection blocked by external causes. Delay > 50 sec/veh	Forced flow, breakdown.

Sources: Highway Capacity Manual, 6th Edition.

Current Peak Hour Traffic Conditions

Current p.m. peak hour Level of Service was calculated at the three existing intersections for inclusion in the analysis (Refer to Appendix for calculation worksheets) under "Existing" conditions, and the results are presented in Table 2.

Level of Service. Traffic conditions in the study area vary. Peak hour operating conditions at the Pease Road / W. Onstott Road and Stabler Lane / Butte Vista Lane intersections meet the City's LOS D standard, operating at LOS B or better. The Queens Avenue / Peach Tree Lane intersection will operate at LOS E, below the City standard.

TABLE 2
EXISTING LEVELS OF SERVICE

Intersection	Control	Min LOS	PM Peak Hour	
			Average Delay (sec/veh)	LOS
Pease Road / W. Onstott Road				
NB	NB Stop	D	7.7	A
WB Left			10.6	B
Queens Avenue / Peach Tree Lane				
SB	SB Stop	D	36.3	E
EB Left			9.1	A
Stabler Lane / Butte Vista Lane	Roundabout	D	3.4	A

N/A – not applicable

Traffic Signal Warrants. Current peak hour traffic volumes were compared to MUTCD peak hour warrant requirements to determine whether traffic signals may already be justified at the stop controlled locations. Neither of the study intersections carry volumes that satisfy peak hour warrants.

PROJECT CHARACTERISTICS

Project Description

The text that follows describes the characteristics of the project in terms of automobile trip generation and distribution.

Trip Generation. The number of vehicle trips that are expected to be generated by development of the Johnson Ranch Subdivision can be estimated using typical trip generation rates for single family development. Applicable rates are published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual, 11th Edition*. These rates are presented in Table 3, and as shown 77 trips in the evening p.m. peak hour.

TABLE 3
TRIP GENERATION RATES

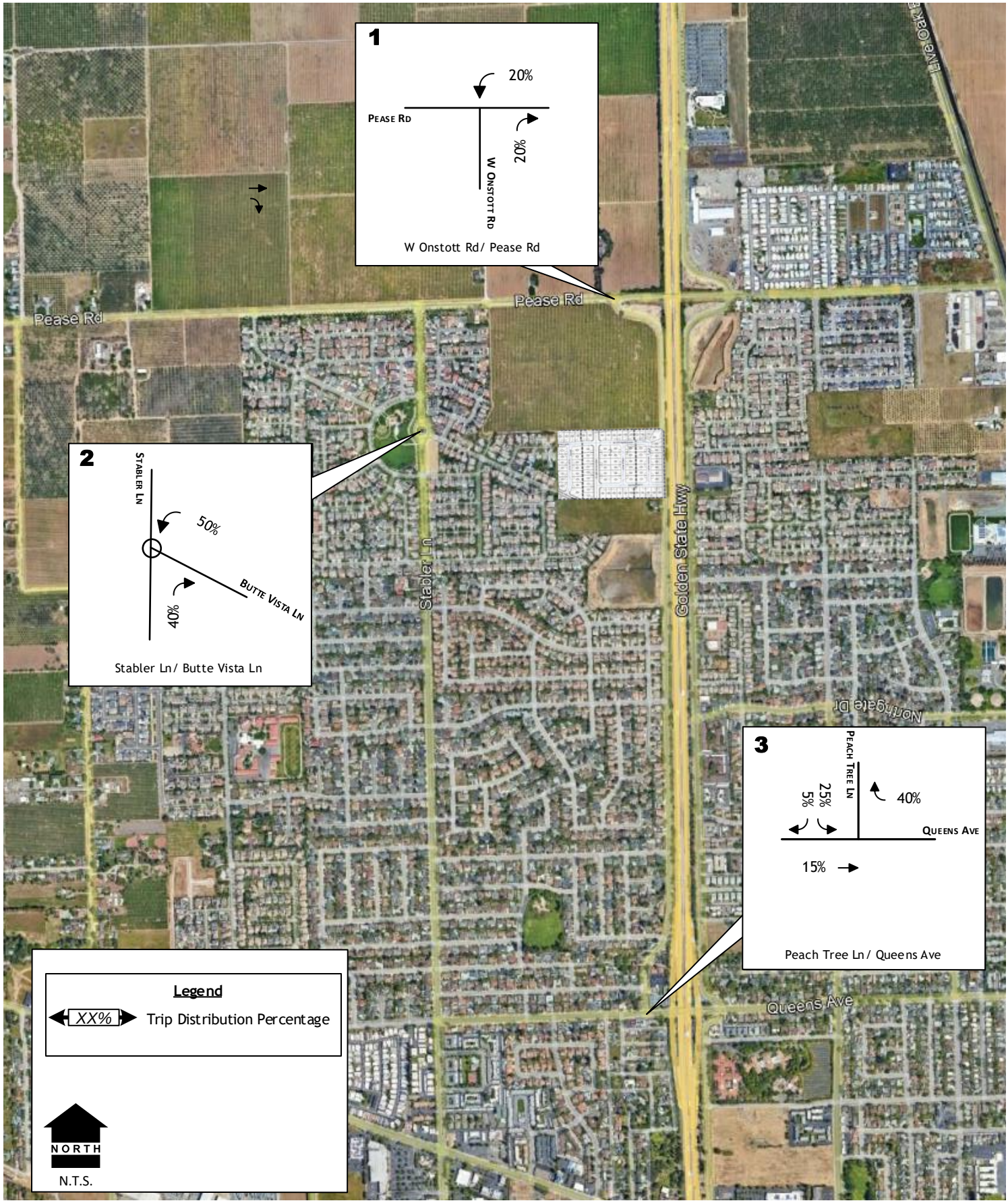
Land Use	Unit	Trip Per Unit						
			AM Peak Hour			PM Peak Hour		
		Daily	In	Out	Total	In	Out	Total
Single Family Residential	Dwelling	9.43	25%	75%	0.70	63%	37%	0.94
Johnson Ranch	82 du	773	14	43	57	49	29	77

Trips may not equal due to rounding

Trip Distribution. The distribution of vehicle trips associated with the proposed development has been based on existing traffic patterns, the location of probable destinations including the locations of local schools. Table 4 presents the projected trip distribution percentages for the project's new trips used for this analysis. Variation also occurs between current and long-term conditions, should the SR 99 / Pease Road interchange be constructed. Figure 4 shows the trip distribution for the existing conditions.

TABLE 4
PROJECT TRIP DISTRIBUTION ASSUMPTIONS

Direction	Route	Percentage			
		Existing		Future	
		In	Out	In	Out
North	W. Onstott Road to Pease Road East	20%	20%	30%	60%
South	Stabler Lane	40%	50%	40%	40%
	W. Onstott Road – Peach Tree Lane to SR 99	40%	30%	30%	0%
Total		**100%**	**100%**	**100%**	**100%**



TRIP DISTRIBUTION PERCENTAGES (EXISTING)

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figure 4

Trip Assignment. The projects were assigned to the study area circulation system based on the access identified in the tentative map and the least time path between residences in the subdivision and identified destinations. "Project only" traffic under this scenario is presented in Figure 5.

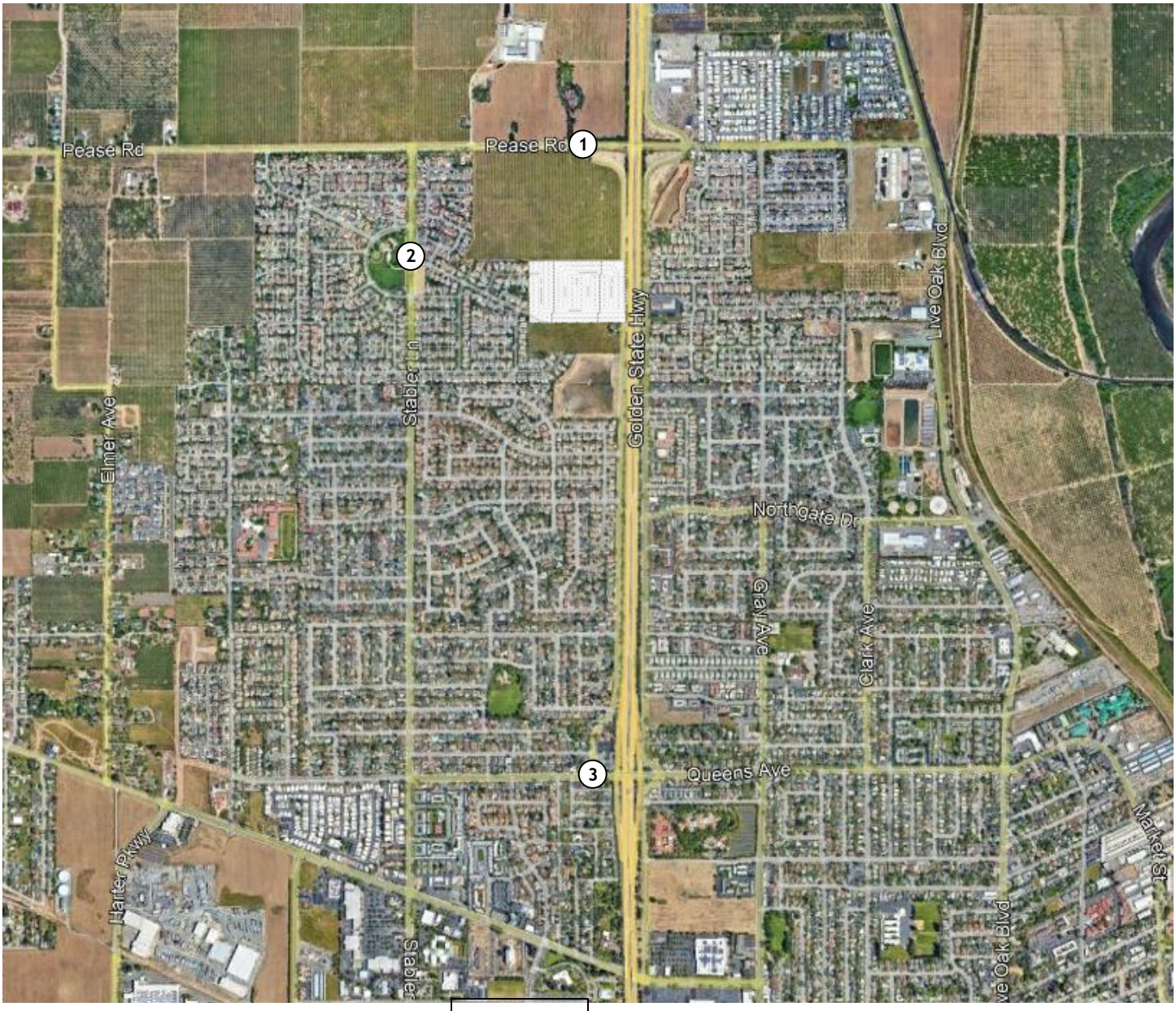
Existing Plus Project Conditions

Intersection Levels of Service. Figure 6 presents the sum of existing traffic and project trips. Table 5 compares current Levels of Service at study intersections with "Plus Project" conditions. The addition of project trips will add traffic to each intersection; however, the peak hour operating conditions at the Pease Road / W. Onstott Road and Stabler Lane / Butte Vista Lane intersections will continue to meet the City's LOS D standard, operating at LOS B or better. The Queens Avenue / Peach Tree Lane intersection will continue to operate at LOS E, below the City standard.

TABLE 5
EXISTING PLUS PROJECT LEVELS OF SERVICE

Intersection	Control	Min LOS	Existing PM Peak Hour		Existing plus Project PM Peak Hour	
			Average Delay (sec/veh)	LOS	Average Delay (sec/veh)	LOS
Pease Road / W. Onstott Road NB WB Left	NB Stop	D	 7.7 10.6	 A B	 7.7 10.6	 A B
Queens Avenue / Peach Tree Lane SB EB Left	SB Stop	D	 36.3 9.1	 E A	 40.3 9.2	 E A
Stabler Lane / Butte Vista Lane	Roundabout	D	3.4	A	3.5	A

N/A – not applicable



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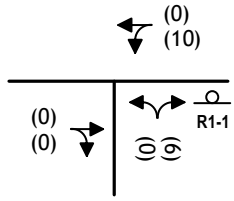
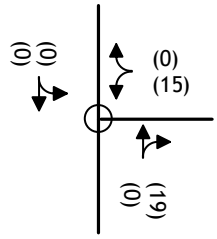


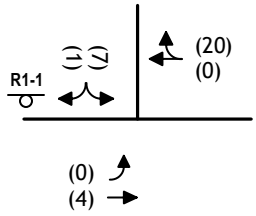
W Onstott Rd/ Pease Rd

2



Stabler Ln/ Butte Vista Ln

3



W Onstott Frontage Rd/ Queens Ave

Legend

(XX) PM Peak Hour Volume

R1-1 Stop Sign

Signalized Intersection

NORTH

N.T.S.

EXISTING PROJECT ONLY TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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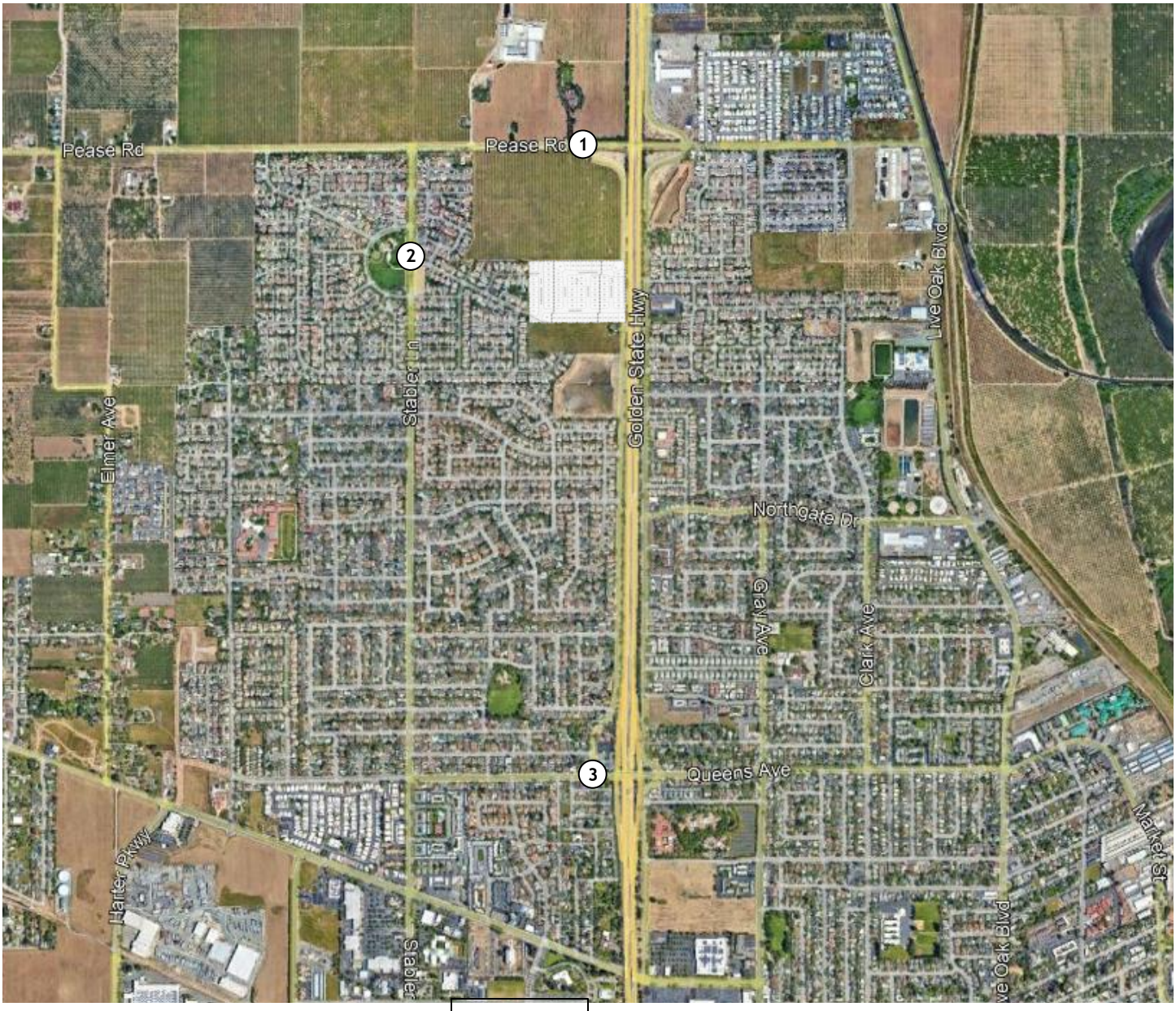
figure 5



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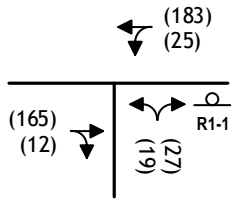
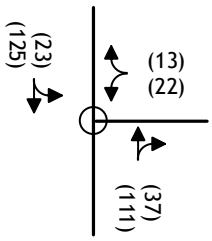


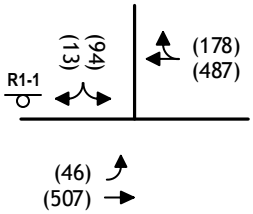
W Onstott Rd/ Pease Rd

2



Stabler Ln/ Butte Vista Ln

3



W Onstott Frontage Rd/ Queens Ave

Legend

(XX) PM Peak Hour Volume

R1-1 Stop Sign

Signalized Intersection

NORTH

N.T.S.

EXISTING PLUS PROJECT TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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figure 6

CUMULATIVE IMPACTS

Long Term Cumulative Conditions

In 2004 the City prepared a Project Study Report (PSR) to convert the SR 99 / Pease Road overcrossing into a future interchange. The project is not active, and an updated PID-PSR would be required.

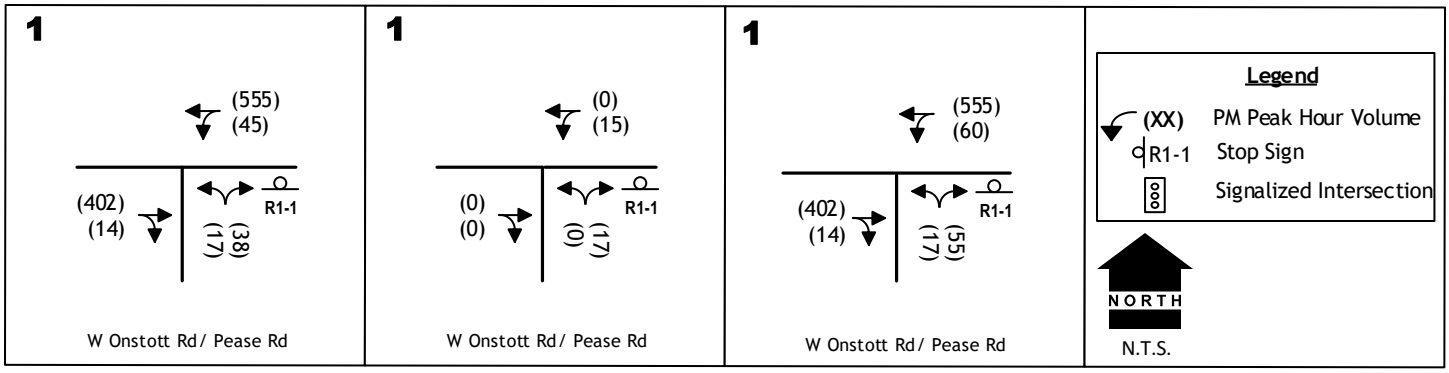
The current City traffic model does show interchange volumes as part of the 2040 conditions. Therefore, forecasts of future year traffic volumes were prepared for this traffic impact study using the current Yuba City Travel Demand Forecasting Model. The travel model is a computer simulation model that estimates traffic volumes on roadways, based on data describing the amount of land uses and characteristics of the roadway network. The geographic modeling area includes the City of Yuba City, City of Marysville, and the surrounding unincorporated area. The travel model forecasts traffic volumes for the a.m. peak hour, p.m. peak hour, and a 24-hour period. The travel model forecasts traffic volumes for a Year 2040 General Plan Build-Out scenario.

The method used to develop forecasts of future year peak hour intersection turning movement traffic volumes were completed using the traffic volume growth factors between the 2020 and 2040 cumulative buildout. These growth factors were applied to existing peak hour intersection turning movement traffic volumes. The development of future year intersection turning movement traffic volumes requires that the turning movements at each intersection "balance". To achieve the balance, inbound traffic volumes must equal the outbound traffic volumes, and the volumes must be distributed along the various left-turn, through, and right-turn movements at each intersection. The "balancing" of future year intersection turning movement traffic volumes was conducted using methods described in the Transportation Research Board's (TRB's) National Cooperative Highway Research Program (NCHRP) Report 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board 1982). The NCHRP 255 method applies the desired peak hour directional volumes to the intersection turning movement volumes, using an iterative process to balance and adjust the resulting forecasts to match the desired peak hour directional volumes.

Traffic Volume Forecasts. Peak hour intersection turning movements were created for No Project and Plus Project Cumulative conditions for the W. Onstott Road / Pease Road intersection. Figure 7 identifies Cumulative traffic volumes at study intersections without the project.

Cumulative No Project Conditions. Table 6 identifies peak hour Levels of Service under future conditions. The Pease Road / W. Onstott Road intersection is projected to operate LOS C. The intersection would not meet the peak hour warrant for signalization.

Cumulative Plus Project Conditions. Figure 8 presents the modified trip distribution with the Pease Road interchange constructed. Figure 7 shows the project traffic and Cumulative plus Project volumes at the intersection. Table 6 identifies peak hour Levels of Service under future conditions. The Pease Road / W. Onstott Road intersection is projected to operate LOS C and will not meet the peak hour signal warrant.



CUMULATIVE **PROJECT TRAFFIC** **CUMULATIVE PLUS PROJECT**

CUMULATIVE TRAFFIC VOLUMES AND LANE CONFIGURATIONS

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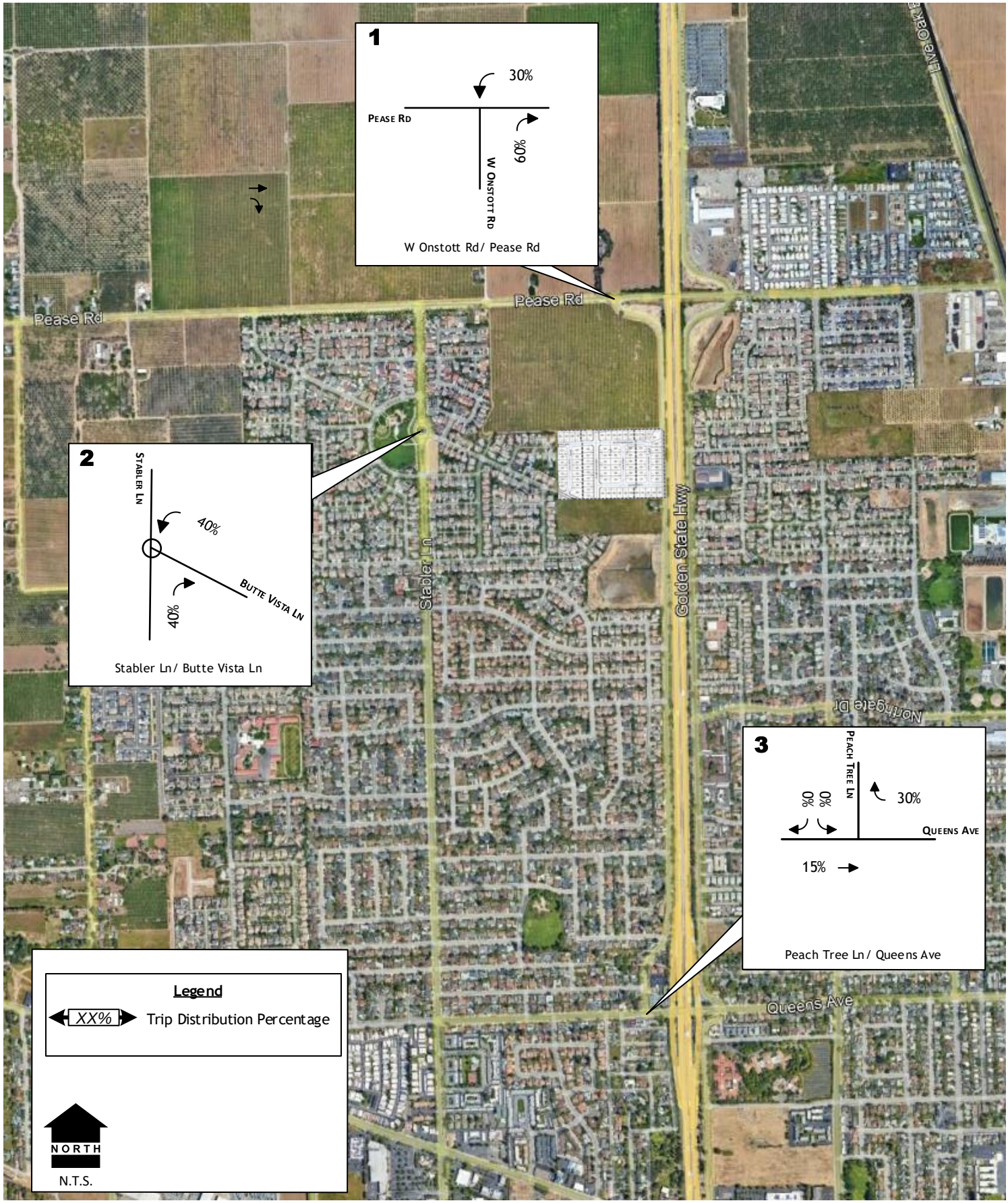
figure 7



TRIP DISTRIBUTION PERCENTAGES (CUMULATIVE)

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figure 8

TABLE 6 CUMULATIVE PLUS PROJECT LEVELS OF SERVICE						
Intersection	**Control**	**Min LOS**	**Cumulative PM Peak Hour**		**Cumulative plus Project PM Peak Hour**	
			Average Delay (sec/veh)	**LOS**	**Average Delay (sec/veh)**	**LOS**
Pease Road / W. Onstott Road NB WB Left	NB Stop	D	 17.1 8.5	 C A	 16.9 8.5	 C A

Pease Road / W. Onstott Road Operational Characteristics

As noted earlier, the Pease Road / W. Onstott Road intersection will operate at acceptable LOS levels under Existing plus Project and Cumulative plus Project conditions. Additionally, the intersection will not meet the peak hour signal warrant.

Sight distance at W. Onstott Road traffic was reviewed to determine if minimum corner sight distance is available. Available sight distance was evaluated using the standards documented in the Caltrans *Highway Design Manual* (HDM). Corner Sight Distance (CSD) is the distance needed for a motorist to see approaching vehicles and complete a turning maneuver before that vehicle arrives.

Based on the existing 40 mph posted speed the required sight distance is 445 feet ($1.47V_mT_g$). Figure 9 illustrates the sight lines and sight distance based on the existing intersection location. Looking west, Pease Road is level with the adjacent land below pavement grade. A clear line of sight is available. Looking east the road begins an upward grade onto the SR 99 overcrossing. The adjacent land is below grade as the side slopes get larger as the road approaches the overcrossing. A clear line of sight is available to about the top of the overcrossing. In both directions the corner sight distance appears to be met.

In the future should the Pease Road interchange be constructed it is likely that the W. Onstott Road intersection would require realignment to the west to provide adequate separation between the intersection and the interchange. This would reduce the possibility of turning vehicles blocking the through lane.

FIGURE 9
SIGHT DISTANCE

Project Effects at Stabler Lane / Butte Vista Lane Roundabout

Goal 3 of the Butte Vista Neighborhood Plan is to "provide a circulation system that is safe, efficient and balanced". The objective is to encourage road layouts that discourage speeding and other unsafe driving behavior. Two identified policies are to encourage a variety of traffic calming devices in the design of the residential street system and encourage road layouts that direct through traffic away from residential areas.

There are two north-south roadways that will be used to access Johnson Ranch, W Onstott Road and Stabler Lane. Stabler Lane is expected to be used mostly in transiting to the elementary school and to shopping areas along SR 20 and to the east of SR 99; the Butte House Road crossing underneath SR 99, accessed directly from Stabler Lane, provides a route into downtown Yuba City without having to travel through the SR 99 / SR 20 intersection.

It is expected that trips to and from the project site through this intersection will not vary even with the proposed Pease Road interchange. The Stabler Lane / Butte Vista Lane roundabout was designed as a central location featuring Regency Park along the west side of the intersection. Stabler Lane also provides a direct route to the local elementary school, Butte Vista ES along Blevin Road. Even with the development of an interchange at Pease Road, traffic through the roundabout is not expected to increase, and could decrease as SR 99 becomes a more viable route.

Roundabouts reduce speeds through intersections based on the circulating nature of the design. Roundabouts operate under yield on entry conditions, thus reducing the number of stops in the intersection. Additionally, a single lane roundabout can have a daily capacity of up to about 25,000 vehicles per day. The level of service analysis shows that the intersection currently operates at LOS A and will continue to operate at that level; hence, the roundabout operates with considerable available capacity.

Review of SWITRS data between 2017 and 2021 showed four crashes in the vicinity of the roundabout. One crash occurred in each year between 2017 and 2021 and included two hit and run crashes, an improper turn and a speed related crash. The crash history does not indicate a specific operational issue at the roundabout.

Queens Avenue / Peach Tree Lane Operational Characteristics

As noted earlier the Queens Avenue / Peach Tree Lane intersection currently operates at LOS E conditions and will continue to operate at LOS E under Existing plus Project conditions. Previous studies, including the Butte Vista Neighborhood Plan, recommended installation of a traffic signal to improve the level of service; however, this intersection would be less than 250 feet from the Queens Avenue / SR 99 southbound ramps signalized intersection. Instead, it is recommended that a traffic signal not be installed due to this distance. It is also recommended that the City consider an override to the General Plan to accept LOS E or worse conditions at this intersection.

Were the City to proceed with installation of a traffic signal the Johnson Ranch project should contribute its fair share of this improvement. Using the Caltrans fair share methodology the fair share is 1.4%.

APPENDIX

Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	12	15	183	19	21
Future Vol, veh/h	165	12	15	183	19	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	14	17	208	22	24

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	202	0	437	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	242	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1370	-	577	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1370	-	569	846
Mov Cap-2 Maneuver	-	-	-	-	569	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	687	-	-	1370	-
HCM Lane V/C Ratio	0.066	-	-	0.012	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	503	487	158	87	12
Future Vol, veh/h	42	503	487	158	87	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	519	502	163	90	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	665	0	-	0	1189	584
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	605	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	924	-	-	-	208	512
Stage 1	-	-	-	-	557	-
Stage 2	-	-	-	-	545	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	924	-	-	-	198	512
Mov Cap-2 Maneuver	-	-	-	-	198	-
Stage 1	-	-	-	-	531	-
Stage 2	-	-	-	-	545	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	36.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	924	-	-	-	214
HCM Lane V/C Ratio	0.047	-	-	-	0.477
HCM Control Delay (s)	9.1	-	-	-	36.3
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.3

MOVEMENT SUMMARY

Site: 101 [Stabler Ln / Butte Vista Ln Exist PM (Site Folder: General)]

Existing PM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Stabler Ln														
8	T1	111	2.0	121	2.0	0.102	3.4	LOS A	0.5	11.8	0.11	0.03	0.11	36.9
18	R2	18	2.0	20	2.0	0.102	3.4	LOS A	0.5	11.8	0.11	0.03	0.11	35.6
Approach		129	2.0	140	2.0	0.102	3.4	LOS A	0.5	11.8	0.11	0.03	0.11	36.7
East: Butte Vista Ln														
1	L2	7	2.0	8	2.0	0.018	3.2	LOS A	0.1	1.9	0.25	0.11	0.25	35.9
16	R2	13	2.0	14	2.0	0.018	3.2	LOS A	0.1	1.9	0.25	0.11	0.25	34.4
Approach		20	2.0	22	2.0	0.018	3.2	LOS A	0.1	1.9	0.25	0.11	0.25	34.9
North: Stabler Ln														
7u	U	2	2.0	2	2.0	0.113	3.4	LOS A	0.5	13.2	0.05	0.01	0.05	37.7
7	L2	23	2.0	25	2.0	0.113	3.4	LOS A	0.5	13.2	0.05	0.01	0.05	36.6
4	T1	125	2.0	136	2.0	0.113	3.4	LOS A	0.5	13.2	0.05	0.01	0.05	36.3
Approach		150	2.0	163	2.0	0.113	3.4	LOS A	0.5	13.2	0.05	0.01	0.05	36.3
All Vehicles		299	2.0	325	2.0	0.113	3.4	LOS A	0.5	13.2	0.09	0.03	0.09	36.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	165	12	25	183	19	27
Future Vol, veh/h	165	12	25	183	19	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	14	28	208	22	31

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	202	0	459	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	264	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1370	-	560	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	780	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1370	-	547	846
Mov Cap-2 Maneuver	-	-	-	-	547	-
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	762	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	690	-	-	1370	-
HCM Lane V/C Ratio	0.076	-	-	0.021	-
HCM Control Delay (s)	10.6	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	503	487	178	94	13
Future Vol, veh/h	46	503	487	178	94	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	185	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	519	502	184	97	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	686	0	-	0	1207	594
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	613	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	908	-	-	-	203	505
Stage 1	-	-	-	-	552	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	908	-	-	-	192	505
Mov Cap-2 Maneuver	-	-	-	-	192	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	541	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	40.3
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	908	-	-	-	208
HCM Lane V/C Ratio	0.052	-	-	-	0.53
HCM Control Delay (s)	9.2	-	-	-	40.3
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	2.8

MOVEMENT SUMMARY

Site: 101 [Stabler Ln / Butte Vista Ln EPP PM (Site Folder: General)]

Existing plus Project PM
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: Stabler Ln														
8	T1	111	2.0	121	2.0	0.117	3.6	LOS A	0.5	13.7	0.11	0.03	0.11	36.8
18	R2	37	2.0	40	2.0	0.117	3.6	LOS A	0.5	13.7	0.11	0.03	0.11	35.5
Approach		148	2.0	161	2.0	0.117	3.6	LOS A	0.5	13.7	0.11	0.03	0.11	36.4
East: Butte Vista Ln														
1	L2	22	2.0	24	2.0	0.032	3.3	LOS A	0.1	3.4	0.26	0.12	0.26	35.0
16	R2	13	2.0	14	2.0	0.032	3.3	LOS A	0.1	3.4	0.26	0.12	0.26	33.5
Approach		35	2.0	38	2.0	0.032	3.3	LOS A	0.1	3.4	0.26	0.12	0.26	34.4
North: Stabler Ln														
7u	U	2	2.0	2	2.0	0.118	3.5	LOS A	0.5	13.8	0.11	0.03	0.11	37.6
7	L2	23	2.0	25	2.0	0.118	3.5	LOS A	0.5	13.8	0.11	0.03	0.11	36.5
4	T1	125	2.0	136	2.0	0.118	3.5	LOS A	0.5	13.8	0.11	0.03	0.11	36.2
Approach		150	2.0	163	2.0	0.118	3.5	LOS A	0.5	13.8	0.11	0.03	0.11	36.2
All Vehicles		333	2.0	362	2.0	0.118	3.5	LOS A	0.5	13.8	0.13	0.04	0.13	36.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	402	14	45	555	17	38
Future Vol, veh/h	402	14	45	555	17	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	457	16	51	631	19	43

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	473	0	1198	465
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	733	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1089	-	205	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	475	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1089	-	190	597
Mov Cap-2 Maneuver	-	-	-	-	190	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	441	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	359	-	-	1089	-
HCM Lane V/C Ratio	0.174	-	-	0.047	-
HCM Control Delay (s)	17.1	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	402	14	60	555	17	55
Future Vol, veh/h	402	14	60	555	17	55
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	457	16	68	631	19	63

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	473	0	1232	465
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	767	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1089	-	196	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	458	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1089	-	177	597
Mov Cap-2 Maneuver	-	-	-	-	177	-
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	414	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	16.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	383	-	-	1089	-
HCM Lane V/C Ratio	0.214	-	-	0.063	-
HCM Control Delay (s)	16.9	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.2	-

APPENDIX A
FAIR SHARE PERCENTAGES & COSTS

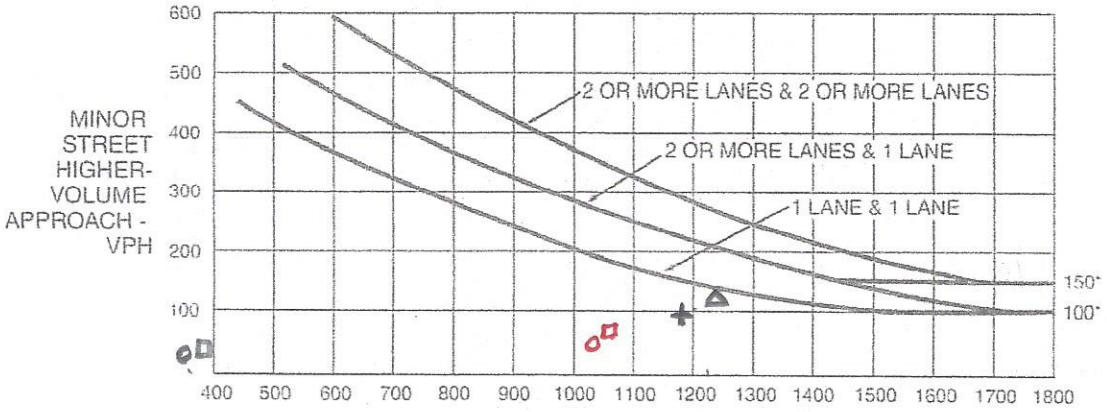
$$\frac{\text{(Future + Project Volumes) - Future}}{\text{(Future + Project) – EPAP (existing \& approved projects)}}$$

Peach Tree Lane / Queens Avenue

PM $\quad \frac{2,629 – 2,610}{2,629 – 1,289}$

=1.4% **Fair Share Percentage**

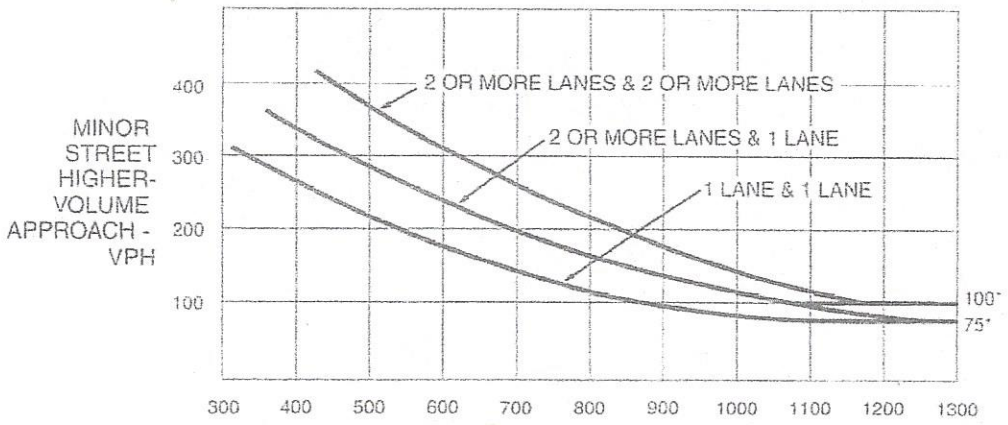
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

PEASE RD/W ONSTOTT

QUEENS AVE / PEACH TREE

EXIST o +

EXIST+PROJ □ △

CUMULATIVE o

CUMULATIVE+ PROJ □

Prepared by National Data & Surveying Services

W Onstott Frontage Rd/Peach Tree Ln & Queens Ave

Peak Hour Turning Movement Count

ID: 19-07043-001
City: Yuba City

Day: Thursday
Date: 02/14/2019

W Onstott Frontage Rd/Peach Tree Ln — SOUTHBOUND

PEAK HOURS	NONE	AM	0	0	0	0	0	AM	NONE	COUNT PERIODS
	NONE	NOON	0	0	0	0	0	NOON	NONE	
	04:45 PM - 05:45 PM	PM	12	0	87	0	200	PM	04:00 PM - 06:00 PM	

EASTBOUND (Queens Ave)

AM	NOON	PM	
0	0	499	⇦
0	0	0	↶ 0
0	0	42	↱ 0
0	0	503	→ 0
0	0	0	↷ 0
AM	NOON	PM	

WESTBOUND (Queens Ave)

PM	NOON	AM	
158	0	0	0 ↷
487	0	0	0 ←
0	0	0	0 ↶
0	0	0	0 ↷
590	0	0	⇨
PM	NOON	AM	

CONTROL

0

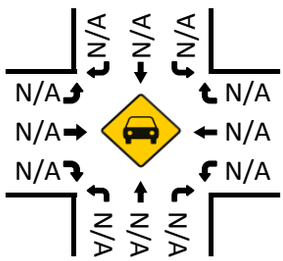
	AM	NOON	PM
TEV	0	0	1289
PHF			0.97

NORTHBOUND

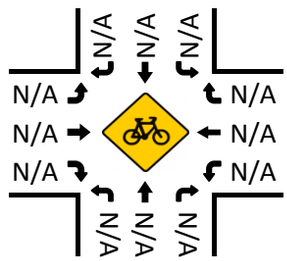
		PM	0	0	0	0	0	PM		
		NOON	0	0	0	0	0	NOON		
		AM	0	0	0	0	0	AM		

W Onstott Frontage Rd/Peach Tree Ln

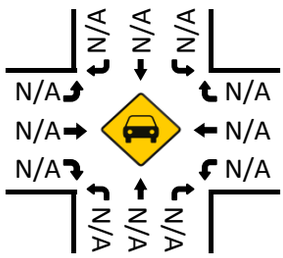
Total Vehicles (AM)



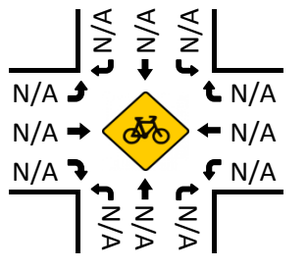
Bikes (AM)



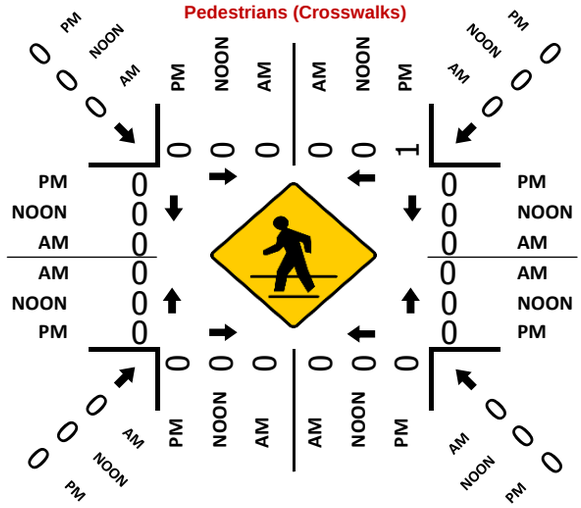
Total Vehicles (Noon)



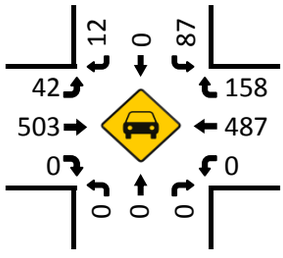
Bikes (NOON)



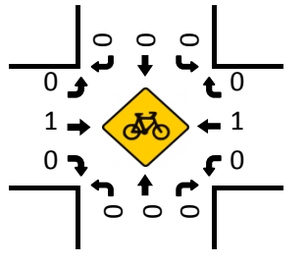
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd/Peach Tree Ln & Queens Ave
City: Yuba City
Control:

Project ID: 19-07043-001
Date: 2/14/2019

Total

NS/EW Streets:	W Onstott Frontage Rd/Peach Tree Ln				W Onstott Frontage Rd/Peach Tree Ln				Queens Ave				Queens Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	24	0	6	0	7	122	0	0	0	142	33	0	334
4:15 PM	0	0	0	0	20	0	3	0	8	141	0	0	0	106	40	0	318
4:30 PM	0	0	0	0	18	0	5	0	6	98	0	0	0	120	39	0	286
4:45 PM	0	0	0	0	22	0	4	0	10	132	0	0	0	122	42	0	332
5:00 PM	0	0	0	0	14	0	2	0	12	124	0	0	0	119	42	0	313
5:15 PM	0	0	0	0	24	0	3	0	15	133	0	0	0	124	30	0	329
5:30 PM	0	0	0	0	27	0	3	0	5	114	0	0	0	122	44	0	315
5:45 PM	0	0	0	0	27	0	5	0	14	122	0	0	0	99	44	0	311
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	176	0	31	0	77	986	0	0	0	954	314	0	2538
APPROACH %'s :					85.02%	0.00%	14.98%	0.00%	7.24%	92.76%	0.00%	0.00%	0.00%	75.24%	24.76%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	87	0	12	0	42	503	0	0	0	487	158	0	1289
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.806	0.000	0.750	0.000	0.700	0.945	0.000	0.000	0.000	0.982	0.898	0.000	0.971
					0.825				0.921				0.971				

National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd/Peach Tree Ln & Queens Ave
City: Yuba City
Control: 0

Project ID: 19-07043-001
Date: 2/14/2019

Bikes

NS/EW Streets:	W Onstott Frontage Rd/Peach Tree Ln				W Onstott Frontage Rd/Peach Tree Ln				Queens Ave				Queens Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.500
									0.250				0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd/Peach Tree Ln & Queens Ave
City: Yuba City

Project ID: 19-07043-001
Date: 2/14/2019

Pedestrians (Crosswalks)

NS/EW Streets:	W Onstott Frontage Rd/Peach Tree Ln		W Onstott Frontage Rd/Peach Tree Ln		Queens Ave		Queens Ave		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	2	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	2	0	0	0	3
APPROACH %'s :	0.00%	100.00%			100.00%	0.00%			
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :		0.250							0.250
	0.250								

Prepared by National Data & Surveying Services

W Onstott Frontage Rd & Pease Rd

Peak Hour Turning Movement Count

ID: 19-07043-005
City: Yuba City

Day: Thursday
Date: 02/14/2019

W Onstott Frontage Rd

SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	AM
NOON	NONE	NOON
PM	05:00 PM - 06:00 PM	PM

SOUTHBOUND	AM	NOON	PM
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0

EASTBOUND	AM	NOON	PM
	0	0	202
	0	0	0
	0	0	0
	0	0	165
	0	0	12

WESTBOUND	PM	NOON	AM
	0	0	0
	183	0	0
	15	0	0
	0	0	0
	186	0	0

NORTHBOUND	PM	NOON	AM
	27	0	19	0	21
	0	0	0	0	0
	0	0	0	0	0

CONTROL

0

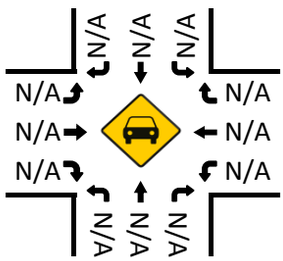
	AM	NOON	PM
TEV	0	0	415
PHF			0.88

W Onstott Frontage Rd

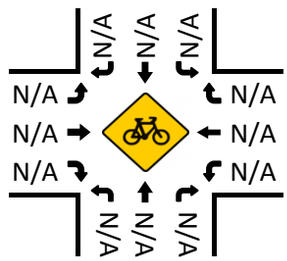
Pease Rd (EASTBOUND)

Pease Rd (WESTBOUND)

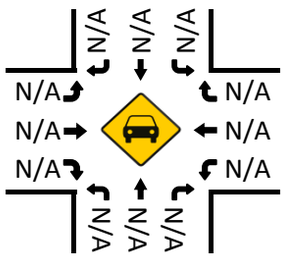
Total Vehicles (AM)



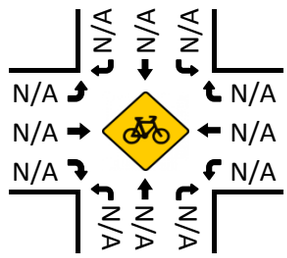
Bikes (AM)



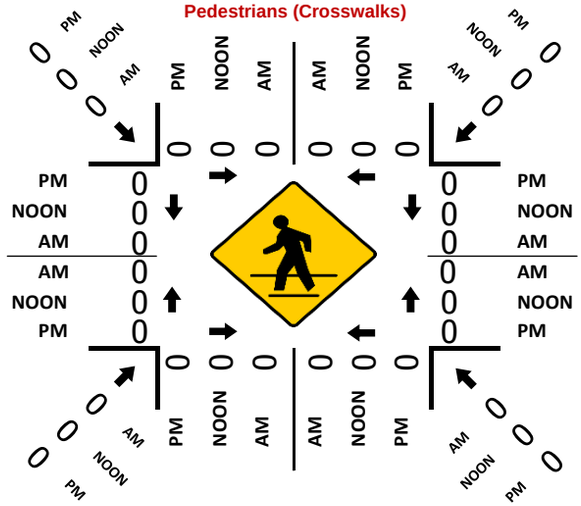
Total Vehicles (Noon)



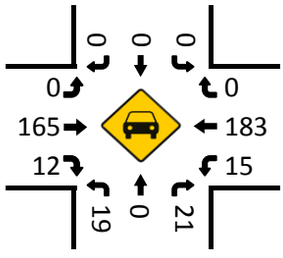
Bikes (NOON)



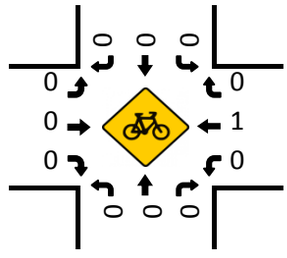
Pedestrians (Crosswalks)



Total Vehicles (PM)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd & Pease Rd
City: Yuba City
Control:

Project ID: 19-07043-005
Date: 2/14/2019

Total

NS/EW Streets:	W Onstott Frontage Rd				W Onstott Frontage Rd				Pease Rd				Pease Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	0	5	0	0	0	0	0	0	31	6	0	5	36	0	0	86
4:15 PM	1	0	3	0	0	0	0	0	0	38	2	0	2	44	0	0	90
4:30 PM	0	0	4	0	0	0	0	0	0	37	2	0	9	55	0	0	107
4:45 PM	5	0	1	0	0	0	0	0	0	36	1	0	2	37	0	0	82
5:00 PM	7	0	6	0	0	0	0	0	0	39	4	0	2	60	0	0	118
5:15 PM	1	0	3	0	0	0	0	0	0	33	1	0	6	51	0	0	95
5:30 PM	7	0	3	0	0	0	0	0	0	47	3	0	7	35	0	0	102
5:45 PM	4	0	9	0	0	0	0	0	0	46	4	0	0	37	0	0	100
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	28	0	34	0	0	0	0	0	0	307	23	0	33	355	0	0	780
APPROACH %'s :	45.16%	0.00%	54.84%	0.00%					0.00%	93.03%	6.97%	0.00%	8.51%	91.49%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	19	0	21	0	0	0	0	0	0	165	12	0	15	183	0	0	415
PEAK HR FACTOR :	0.679	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.878	0.750	0.000	0.536	0.763	0.000	0.000	0.879
	0.769								0.885				0.798				

National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd & Pease Rd
City: Yuba City
Control: 0

Project ID: 19-07043-005
Date: 2/14/2019

Bikes

NS/EW Streets:	W Onstott Frontage Rd				W Onstott Frontage Rd				Pease Rd				Pease Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
														0.250			

National Data & Surveying Services Intersection Turning Movement Count

Location: W Onstott Frontage Rd & Pease Rd
City: Yuba City

Project ID: 19-07043-005
Date: 2/14/2019

Pedestrians (Crosswalks)

NS/EW Streets:	W Onstott Frontage Rd		W Onstott Frontage Rd		Pease Rd		Pease Rd		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	1	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	1	1	0	0	0	0	2
APPROACH %'s :			50.00%	50.00%					
PEAK HR :	**05:00 PM - 06:00 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Stabler Ln & Butte Vista Ln

Peak Hour Turning Movement Count

ID: 19-07043-008
City: Yuba City

Day: Thursday
Date: 02/14/2019

PEAK HOURS

AM	NONE
NOON	NONE
PM	04:30 PM - 05:30 PM

COUNT PERIODS

AM	NONE
NOON	NONE
PM	04:00 PM - 06:00 PM

SOUTHBOUND (Stabler Ln)

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	125	23	2	126	PM

EASTBOUND (Butte Vista Ln)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Butte Vista Ln)

PM	NOON	AM	
13	0	0	0
0	0	0	0
7	0	0	0
0	0	0	0
41	0	0	
PM	NOON	AM	

NORTHBOUND (Stabler Ln)

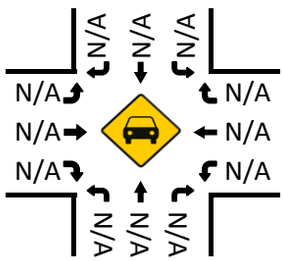
PM	132	0	0	111	18	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

CONTROL

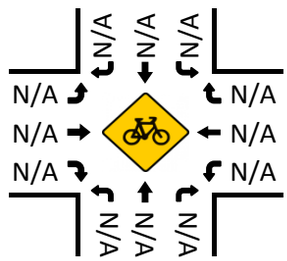
0

	AM	NOON	PM
TEV	0	0	299
PHF			0.92

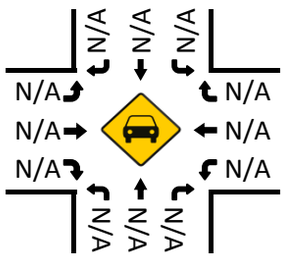
Total Vehicles (AM)



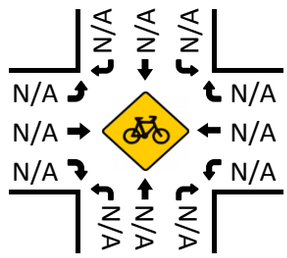
Bikes (AM)



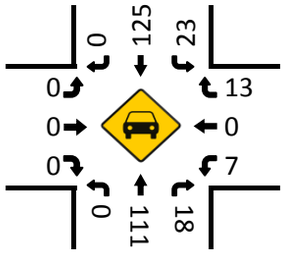
Total Vehicles (Noon)



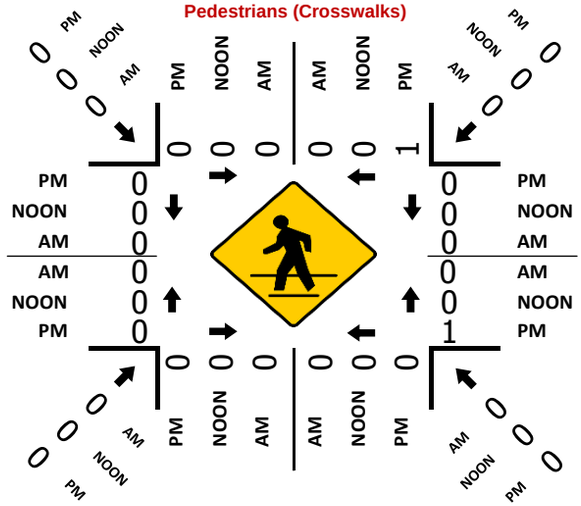
Bikes (NOON)



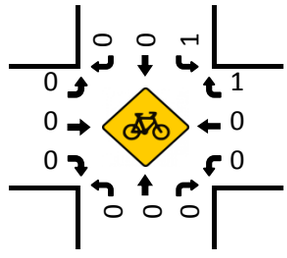
Total Vehicles (PM)



Pedestrians (Crosswalks)



Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Stabler Ln & Butte Vista Ln
City: Yuba City
Control:

Project ID: 19-07043-008
Date: 2/14/2019

Total

NS/EW Streets:	Stabler Ln				Stabler Ln				Butte Vista Ln				Butte Vista Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	23	4	0	2	24	0	0	0	0	0	0	8	0	5	0	66
4:15 PM	0	31	8	0	6	24	0	0	0	0	0	0	4	0	6	0	79
4:30 PM	0	30	4	0	2	32	0	0	0	0	0	0	1	0	3	0	72
4:45 PM	0	24	2	0	7	28	0	1	0	0	0	0	2	0	3	0	67
5:00 PM	0	27	5	0	9	31	0	1	0	0	0	0	1	0	5	0	79
5:15 PM	0	30	7	0	5	34	0	0	0	0	0	0	3	0	2	0	81
5:30 PM	0	24	7	0	3	22	0	0	0	0	0	0	6	0	4	0	66
5:45 PM	0	25	6	0	5	22	0	0	0	0	0	0	8	0	7	0	73
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	214	43	0	39	217	0	2	0	0	0	0	33	0	35	0	583
APPROACH %'s :	0.00%	83.27%	16.73%	0.00%	15.12%	84.11%	0.00%	0.78%					48.53%	0.00%	51.47%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	111	18	0	23	125	0	2	0	0	0	0	7	0	13	0	299
PEAK HR FACTOR :	0.000	0.925	0.643	0.000	0.639	0.919	0.000	0.500	0.000	0.000	0.000	0.000	0.583	0.000	0.650	0.000	0.923
		0.872				0.915								0.833			

National Data & Surveying Services Intersection Turning Movement Count

Location: Stabler Ln & Butte Vista Ln
City: Yuba City
Control: 0

Project ID: 19-07043-008
Date: 2/14/2019

Bikes

NS/EW Streets:	Stabler Ln				Stabler Ln				Butte Vista Ln				Butte Vista Ln				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500
					0.250								0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Stabler Ln & Butte Vista Ln
City: Yuba City

Project ID: 19-07043-008
Date: 2/14/2019

Pedestrians (Crosswalks)

NS/EW Streets:	Stabler Ln		Stabler Ln		Butte Vista Ln		Butte Vista Ln		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	1	0	0	1	2	0	0	4
APPROACH %'s :	0.00%	100.00%			33.33%	66.67%			
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	1	0	0	1	0	0	0	2
PEAK HR FACTOR :		0.250			0.250				0.250
	0.250				0.250				

Appendix E

Environmental Noise Assessment for Canterbury Estates

Bollard & Brennan, March 31, 2004

(originally prepared for a neighboring subdivision that is equally relevant to this property)

Initial Study and Mitigated Negative Declaration EA 23-01
For Tentative Subdivision Map 22-09

Environmental Noise Assessment

Canterbury Residential Development

Yuba City, California

Bollard & Brennan Job # 2004-064

Prepared For:

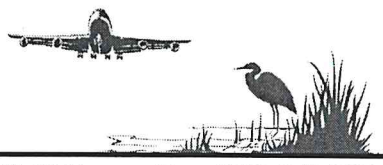
Dunmore Homes
2150 Professional Drive, Suite 150
Roseville, CA 95661

Prepared By:

Bollard & Brennan, Inc.

Paul Bollard, President
Member, Institute of Noise Control Engineers

March 31, 2004



Bollard & Brennan, Inc.
1293 Lincoln Way, Suite A - Auburn, California 95603 - (530) 745-0191 - Fax: (530) 745-0192

INTRODUCTION

The Canterbury Development project is located on the east side of Highway 99, south of Pease Road, in Yuba City, California. The Project proposes the development of single family residences. The project area is shown in Figure 1.

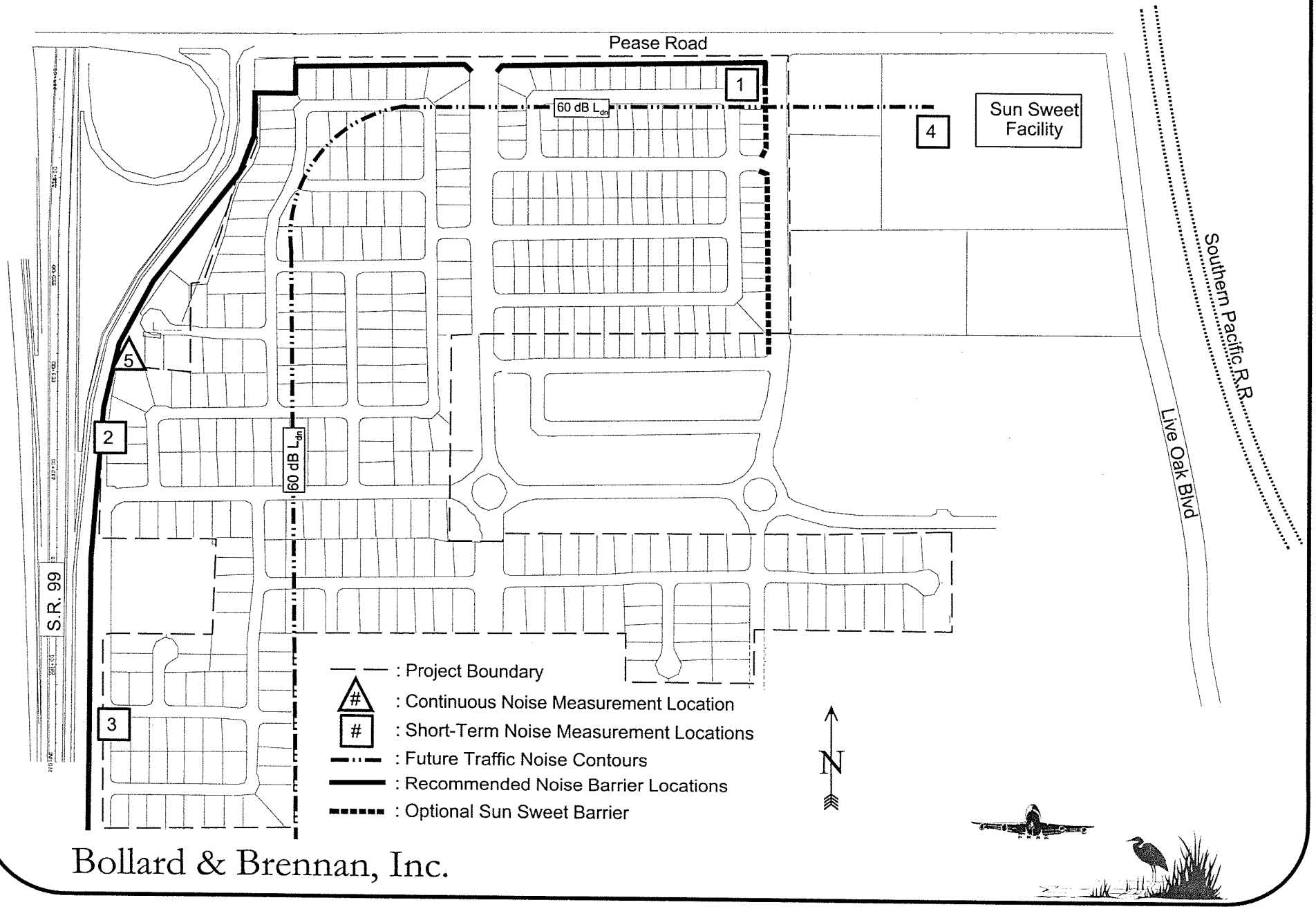
Due to the proximity of this project to Highway 99, Pease Road, the Sunsweet Plant (located at the southwest corner of Pease Road and Live Oak Boulevard), and the Union Pacific Railroad (UPRR) tracks to the east, Yuba City has requested that an acoustical analysis be prepared for this project. Specifically, an analysis was requested to determine whether or not the residences proposed within this development would be exposed to excessive noise from these sources. In response to the County's request, the Acoustical Consulting firm of Bollard & Brennan, Inc. was retained by the project applicant to prepare this analysis.

ACOUSTICAL TERMINOLOGY

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough, they can be heard and are called sound. Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (99 micropascals), as a point of reference, defined as 0 dB. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 199 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by the A-weighing network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this report are expressed in terms of A-weighted levels. Appendix A contains definitions of acoustical terminology.

Figure 1
Canterbury Residential Development
Site Plan, Noise Measurement Locations, and Recommended Noise Barrier Locations



Bollard & Brennan, Inc.

CRITERIA FOR ACCEPTABLE NOISE EXPOSURE

Table G-3 of the Yuba City Noise Element contains the City's basis for developing noise sensitive land use decisions and a guide for a community noise ordinance. It divides land uses into three categories depending upon their sensitivity to noise. The portions of that table which would be applicable to this project are reproduced below in Table 1.

Table 1
Maximum Exterior Ambient Allowable Noise Level Objectives
Yuba City Noise Element

Land Use	Daytime (7am - 10 pm)	Nighttime (10 pm - 7 am)
Low Density Residential	50 dBA	50 dBA
High Density Residential	55 dBA	50 dBA
Neighborhood Commercial	55 dBA	55 dBA
Professional Office	55 dBA	55 dBA
Retail Commercial	60 dBA	55 dBA

Source: Yuba City General Plan Noise Element.

The Yuba City noise standards are somewhat unclear in that the title of the table in which they appear implies that they are maximum noise level standards, but the standards themselves are consistent with average noise level standards recommended by most cities and counties, as well as the State of California Model Community Noise Control Ordinance.

Assuming that the criteria contained within Table 1 are actually intended to be hourly average noise level criteria, consistent with recommendations by the State of California Model Community Noise Control Ordinance, then the criteria would work very well for industrial or stationary noise sources. However, the criteria would be considered to be extremely restrictive for transportation noise sources such as roadway traffic. Generally, 24-hour average noise level criteria are developed for roadway noise sources, such as Ldn. For residential uses, it is generally recognized that an Ldn value between 60 dB and 65 dB is considered to be acceptable. Such standards are applied to this project to remain consistent with standard convention.

EVALUATION OF TRAFFIC NOISE LEVELS

To describe noise levels due to traffic, Bollard & Brennan, Inc. employs the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108). The FHWA model is the analytical method currently favored for traffic noise prediction by most state and local agencies, including the California Department of Transportation (Caltrans). The model is based upon the Calveno reference noise factors for automobiles, medium trucks and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site.

Bollard & Brennan, Inc. utilized published Caltrans traffic counts and BBI file data with the Federal Highway Administration Traffic Noise Prediction Model (FHWA-RD-77-108) to quantify the future noise generation of Highway 99 and Pease Road. The traffic noise prediction model was calibrated through noise level measurements conducted at the locations shown on Figure 1, with the results of the calibration exercise contained in Appendix B. Figure 2 shows the results of continuous noise level measurements conducted adjacent to Highway 99.

A listing of FHWA Model inputs, predicted Ldn values within the nearest proposed backyards, and distances to noise contours are shown in Appendix C. Table 2 summarizes the results of the traffic noise modeling exercise, and the locations of the predicted future 60 dB L_{dn} traffic noise contours are shown on Figure 1.

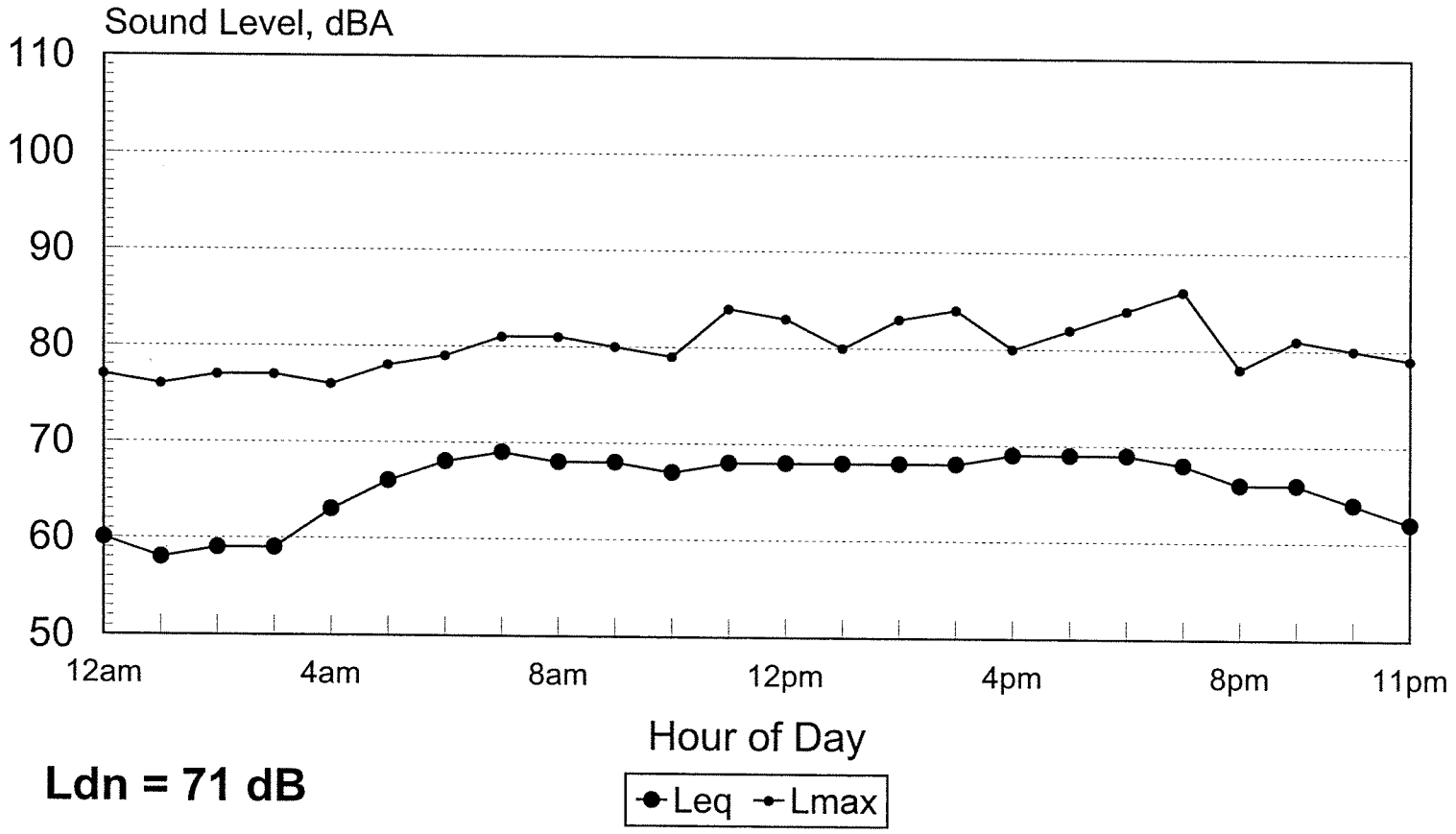
Table 2
Predicted Future Traffic Noise Levels (L_{dn})
Canterbury Development - Yuba City, California

Roadway	Distance to Nearest Backyard (ft.)	Predicted Backyard L_{dn}, dB (Unmitigated)	Distance to 60 dB L_{dn} Contour (ft. from C/L)
Highway 99	180	70	775
Pease Road	110	64	219

Source: FHWA-RD-77-108 with inputs from the Caltrans & Bollard & Brennan, Inc. file data.

The Table 2 data indicate that the predicted future traffic noise levels in the proposed backyards nearest to SR-99 and the conceptual parkway would be approximately 67-69 dB L_{dn}. These levels would exceed the 60-65 dB L_{dn} exterior noise level objectives. Therefore, noise mitigation measures would be required of this development.

Figure 2
Measured Ambient Noise Levels
Canterbury Residential Subdivision
Wednesday March 24, 2004



Ldn = 71 dB

Bollard & Brennan, Inc. evaluated the effectiveness of solid noise barriers in reducing future traffic noise levels for this development by utilizing the FHWA Model with the traffic noise predictions contained in Appendix B. The results of the traffic noise barrier analyses are provided numerically in Table 3, with the detailed inputs provided in Appendix C.

Table 3
Predicted Future Traffic Noise Levels with Various Noise Barrier Heights
Canterbury Development - Yuba City, CA

	L_{dn} with the Following Barrier Heights, dB					
Roadway Name	0	6'	7'	8'	9'	10'
SR-99	70	64	63	62	61	60
Pease Road	64	59	58	57	56	55

Source: FHWA-RD-77-108 and Bollard & Brennan File Data.

The Table 2 data indicate that the construction of a 6-foot barrier along Pease Road and a barrier up to 10 feet in height along Highway 99 are predicted to reduce future traffic noise levels to approximately 60 dB Ldn in the adjacent back yard areas.

Traffic Noise Compliance with Yuba City Interior Noise Standard:

According to Table 1, the predicted future L_{dn} at the nearest residences to Highway 99 would be approximately 70 dB Ldn, prior to construction of noise barriers. Due to reduced ground absorption of sound at elevated locations, traffic noise levels are expected to be approximately 72 dB Ldn at those unshielded second floor facades next to Highway 99. Given future worst-case exterior noise levels of approximately 72 dB L_{dn}, a building facade noise reduction of 27 dB would be required to achieve an interior noise level of 45 dB L_{dn} at the residences constructed adjacent to Highway 99.

Along Pease Road, exterior noise levels are not predicted to exceed 66 dB at unshielded second-floor locations. Given future worst-case exterior noise levels of approximately 66 dB L_{dn}, a building facade noise reduction of 21 dB would be required to achieve an interior noise level of 45 dB L_{dn} at the residences constructed adjacent to Pease Road.

Standard residential construction (wood siding, STC-26 windows, door weatherstripping, exterior wall insulation, composition plywood roof), results in an exterior to interior noise reduction of about 25 dB with windows closed, and approximately 15 dB with windows open. Therefore, standard construction would be acceptable at all first and second floor facades adjacent to Pease Road, and at all first floor facades adjacent to Highway 99, provided mechanical ventilation is included to allow the closure of doors and windows for additional acoustical isolation as desired.

Second-floor facades adjacent to Highway 99 would require improvements over standard construction to ensure compliance with the 45 dB Ldn interior noise level criterion. Specifically, second floor facades should be constructed of Stucco (or wood siding with an under-layer of 3/4 inch wood sheathing), and all second floor bedroom windows located adjacent to Highway 99 from which that roadway is visible should have a minimum STC rating of 30.

EVALUATION OF RAILROAD NOISE LEVELS

The Union Pacific Railroad mainline is located approximately 1,000 feet to the east of the project site and is partially to completely shielded from view of the project site by intervening residences to the northeast, the Sunsweet Plant to the east, and a levee to the southeast. This shielding is estimated to reduce railroad noise by at least 5 dB at the project site.

Given a standard freight train Sound Exposure Level of 104 dB (with warning horn usage) at a distance of 100 feet (Bollard & Brennan, Inc. file data), and an assumed 20 freight operations in a typical day, the computed Ldn at the project site is 55 dB Ldn. Because this level satisfies the recommended 60 dB Ldn exterior noise level criterion, the project site is not considered to be adversely affected by railroad noise. As a result, no site specific railroad noise mitigation measures appear to be warranted for this project.

EVALUATION OF SUNSWEET FACILITY NOISE LEVELS

As noted previously, there is an existing Sunsweet Plant at the corner of Pease Road and Live Oak Boulevard. Yuba City has identified this facility as a potentially significant noise source which may affect the project.

Because the Sunsweet facility operates seasonally according to the plum growing season, it was not in operation at the time this analysis was being prepared. Bollard & Brennan, Inc. contacted Mr. Mark Darymple of Sunsweet to discuss facility operations, and the potential noise effects of the Sunsweet operations at the Canterbury project.

According to Mr. Darymple, the Sunsweet Plant operates from mid-August for a period of about 25 days at 24-hour operations, then operates for another month from about 7 am to 7 pm. During the non-packing season, the facility is involved in routine maintenance, but does not generated appreciable noise at the project site during the off-season.

During the approximately 2-month drying/packing season, the facility processes approximately 800 to 1,200 tons of plums per day. At approximately 25 tons per truck, this level of activity generates 32-48 heavy truck loads per day. On-site equipment consists of forklifts, and dryers (burners and fans), compressors and related equipment.

Because the facility was not in operation at the time this study was prepared, Bollard & Brennan, Inc. was unable to quantify the noise emissions of the facility through noise level measurements. For a qualitative assessment of facility noise generation, Bollard & Brennan, Inc. staff talked to neighbors living in the community to the immediate north of the project site, approximately 250 feet from the Sunsweet facility entrance. According to the different neighbors, the facility generates plainly audible noise levels during the 2-month packing season, but the overall noise levels were not reported to be objectionable or of sufficient magnitude to interfere with outdoor communication. Although there is a 6-foot masonry wall between those residences and the Sunsweet facility, the elevated position of the outdoor decks of the mobile homes are such that there is a direct view from those deck areas into the Sunsweet facility.

Because the nearest residences in the Canterbury project would be located approximately 300 feet from the rear of the Sunsweet facility, and separated from that facility by existing orchards and future commercial structures, it is reasonable to conclude in the absence of quantitative data that the Sunsweet noise emissions would be approximately equal to or less than those received at the existing residential community to the north. Nonetheless, noise mitigation measures should be considered to minimize the potential for adverse public reaction to noise generated by the Sunsweet facility during it's packing season. Such measures are specified at the end of this report.

CONCLUSIONS AND RECOMMENDATIONS

A portion of the Canterbury Development project site will be exposed to future traffic noise levels in excess of the recommended 60 dB L_{dn} standard for new residential developments. In addition, operations at the nearby Sunsweet facility could generate noise levels in excess of Yuba City noise standards at the residences proposed nearest to that roadway. Noise mitigation measures should be included in the project as described in this report to achieve compliance with the recommended noise standards. The following specific recommendations should be considered:

Traffic Noise Mitigation:

1. Air conditioning should be included for all residences in this development to allow the occupants to close doors and windows as desired to achieve additional traffic noise isolation.

2. Sound walls should be constructed to reduce future State Route 99 and Pease Road noise levels to acceptable levels. A minimum barrier height of 6 feet is predicted to reduce future Pease Road traffic noise levels to 60 dB L_{dn} in the nearest backyards, whereas a 10 foot tall Highway 99 wall is identified as necessary at the nearest residences to that roadway. Table 3 should be used to select the appropriate barrier heights for this project.

3. Suitable materials for these barriers include masonry block, precast concrete panels, or other massive materials (surface density of 4 lbs / s.f.).

4. Second-floor facades adjacent to Highway 99 would require improvements over standard construction to ensure compliance with the 45 dB Ldn interior noise level criterion. Specifically, second floor facades should be constructed of Stucco (or wood siding with an under-layer of 3/4 inch wood sheathing), and all second floor bedroom windows located adjacent to Highway 99 from which that roadway is visible should have a minimum STC rating of 30.

Sunsweet Facility Noise Mitigation:

1. The first two rows of residences nearest to the Sunsweet facility should be constructed of stucco siding (or the acoustical equivalent), and all bedroom windows of these residences which face north, east, or south, should have a minimum STC rating of 30.

2. Disclosure statements should be recorded with each property in the development informing all residents of the presence of the Sunsweet facility and of elevated noise levels during the drying/packing season, including 24-hour operations. The statements should be drafted by attorneys representing both Sunsweet and Dunmore Homes to ensure that both the industry and the home builder are protected against legal action which may be brought by future residents of the Canterbury community should they object to Sunsweet noise.

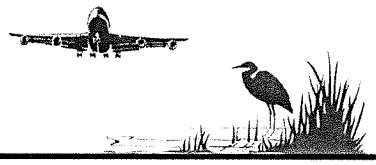
3. Noise level measurements should be conducted at the nearest residences to the Sunsweet facility during the packing season so that a solid noise barrier could be prescribed as necessary at the locations identified on Figure 1 should the measurements indicate that such a barrier would be necessary to comply with Yuba City noise standards. The barrier height would be determined from the nosie level surveys.

These conclusions are based on the site plan shown in Figure 1 and on the assumptions cited in this report. Changes to the site plan or deviations from the assumptions cited herein could cause future noise levels to differ from those predicted in this analysis.

Appendix A

Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Masking	The amount (or the process) by which the threshold of audibility is for one sound is raised by the presence of another (masking) sound.
Noise	Unwanted sound.
Peak Noise	The level corresponding to the highest (not RMS) sound pressure measured over a given period of time. This term is often confused with the "Maximum" level, which is the highest RMS level.
RT_{60}	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 sabin.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

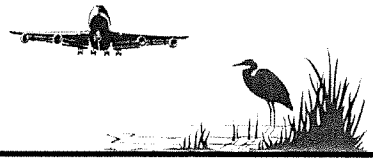


Appendix B-1

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108) Calibration Worksheet

Project Information	Job Number:	2004-064
	Project Name:	Canterbury Residential Development
	Roadway Tested:	Pease Road
	Test Location:	Site #1
	Test Date:	March 23, 2004
Weather Conditions	Temperature (Fahrenheit):	80
	Relative Humidity:	Moderate
	Wind Speed and Direction:	Calm
	Cloud Cover:	Clear
Sound Level Meter	Sound Level Meter:	LDL Model 820
	Calibrator:	LDL Model CA200
	Meter Calibrated:	Immediately before and after test
	Meter Settings:	A-weighted, slow response
Microphone	Microphone Location:	On Project Site
	Distance to Centerline (feet):	25
	Microphone Height:	5 feet above ground
	Intervening Ground:	soft
	Elevation Relative to Road (feet):	3
Roadway Condition	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	4 (2 each way)
	Posted Maximum Speed (mph):	30
Test Parameters	Test Time:	03:29 PM
	Test Duration (minutes):	15
	Observed Number Automobiles:	48
	Observed Number Medium Trucks:	2
	Observed Number Heavy Trucks:	1
	Observed Average Speed (mph):	35
Model Calibration	Measured Average Level (Leq):	64
	Level Predicted by FHWA Model:	63.5
	Difference:	***-0.5 dB***

Conclusions

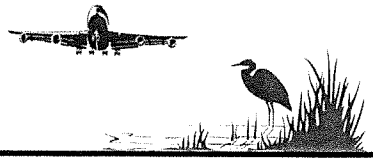


Appendix B-2

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108) Calibration Worksheet

Project Information	Job Number:	2004-064
	Project Name:	Canterbury Residential Development
	Roadway Tested:	Highway 99
	Test Location:	Site #2
	Test Date:	March 23, 2004
Weather Conditions	Temperature (Fahrenheit):	80
	Relative Humidity:	Moderate
	Wind Speed and Direction:	Calm
	Cloud Cover:	Clear
Sound Level Meter	Sound Level Meter:	LDL Model 820
	Calibrator:	LDL Model CA200
	Meter Calibrated:	Immediately before and after test
	Meter Settings:	A-weighted, slow response
Microphone	Microphone Location:	On Project Site
	Distance to Centerline (feet):	90
	Microphone Height:	5 feet above ground
	Intervening Ground:	soft
	Elevation Relative to Road (feet):	3
Roadway Condition	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	4 (2 each way)
	Posted Maximum Speed (mph):	65
Test Parameters	Test Time:	04:14 PM
	Test Duration (minutes):	10
	Observed Number Automobiles:	221
	Observed Number Medium Trucks:	4
	Observed Number Heavy Trucks:	3
	Observed Average Speed (mph):	70
Model Calibration	Measured Average Level (Leq):	71.4
	Level Predicted by FHWA Model:	69.8
	Difference:	***-1.6 dB***

Conclusions

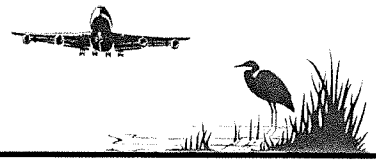


Appendix B-3

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108) Calibration Worksheet

Project Information	Job Number:	2004-064
	Project Name:	Canterbury Residential Development
	Roadway Tested:	Highway 99
	Test Location:	Site #3
	Test Date:	March 23, 2004
Weather Conditions	Temperature (Fahrenheit):	80
	Relative Humidity:	Moderate
	Wind Speed and Direction:	Calm
	Cloud Cover:	Clear
Sound Level Meter	Sound Level Meter:	LDL Model 820
	Calibrator:	LDL Model CA200
	Meter Calibrated:	Immediately before and after test
	Meter Settings:	A-weighted, slow response
Microphone	Microphone Location:	On Project Site
	Distance to Centerline (feet):	150
	Microphone Height:	5 feet above ground
	Intervening Ground:	soft
	Elevation Relative to Road (feet):	1
Roadway Condition	Pavement Type	Asphalt
	Pavement Condition:	Good
	Number of Lanes:	4 (2 each way)
	Posted Maximum Speed (mph):	65
Test Parameters	Test Time:	04:39 PM
	Test Duration (minutes):	10
	Observed Number Automobiles:	191
	Observed Number Medium Trucks:	5
	Observed Number Heavy Trucks:	12
	Observed Average Speed (mph):	70
Model Calibration	Measured Average Level (Leq):	68
	Level Predicted by FHWA Model:	67.2
	Difference:	***-0.8 dB***

Conclusions



Appendix C-1

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information

Job Number: 2004-064
Project Name: Canterbury Residential Subdivision
Roadway Name: Highway 99

Traffic Data

Year: Future
Average Daily Traffic Volume: 30,300
Percent Daytime Traffic: 83
Percent Nighttime Traffic: 17
Percent Medium Trucks (2 axle): 3.0
Percent Heavy Trucks (3+ axle): 6.0
Assumed Vehicle Speed (mph): 65
Intervening Ground Type: **Soft**
Calibration Offset (dB): 0

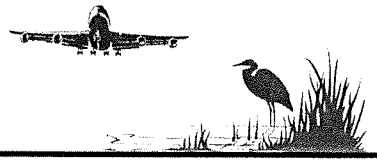
Traffic Noise Levels

			Ldn, dB			
Location		Distance	Autos	Medium Trucks	Heavy Trucks	Total
1	Nearest Backyards	180	67	58	65	70

Noise Contours

Ldn Contour	Distance from Centerline, Feet
75	78
70	167
65	360
60	775

Notes



Appendix C-2

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108)
Noise Prediction Worksheet

Project Information

Job Number: 2004-064
Project Name: Canterbury Residential Subdivision
Roadway Name: Pease Road

Traffic Data

Year: Future
Average Daily Traffic Volume: 20,000
Percent Daytime Traffic: 83
Percent Nighttime Traffic: 17
Percent Medium Trucks (2 axle): 3.0
Percent Heavy Trucks (3+ axle): 3.0
Assumed Vehicle Speed (mph): 35
Intervening Ground Type: **Soft**
Calibration Offset (dB): 0

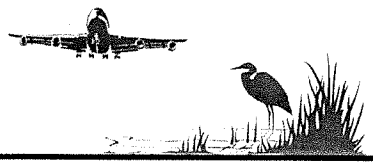
Traffic Noise Levels

			Ldn, dB			
Location		Distance	Autos	Medium Trucks	Heavy Trucks	Total
1	Nearest Backyards	110	61	56	61	64

Noise Contours

Ldn Contour	Distance from Centerline, Feet
75	22
70	47
65	102
60	219

Notes



Appendix D-1

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108)
Noise Barrier Effectiveness Prediction Worksheet

Project Information

Job Number: 2004-064
Project Name: Canterbury Residential Subdivision
Roadway Name: Highway 99
Location(s): Nearest Backyards

Noise Level Data

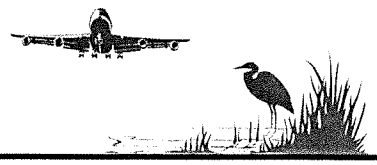
Year: Future
Auto Ldn, dB: 67
Medium Truck Ldn, dB: 58
Heavy Truck Ldn, dB: 65

Site Geometry

Receiver Location: Backyard
Centerline to Barrier Distance: 160
Barrier to Receiver Distance: 20
Automobile Elevation: 0
Medium Truck Elevation: 2
Heavy Truck Elevation: 8
Receiver Elevation: 5
Start Barrier Calcs at Elevation 6

Barrier Effectiveness

	Ldn, dB			
Barrier Elevation, Feet	Autos	Medium Trucks	Heavy Trucks	Total
6	62	53	60	64
7	61	52	59	63
8	59	51	58	62
9	58	50	57	61
10	57	49	56	60
11	57	48	55	59
12	56	47	54	59
13	55	47	54	58



Appendix D-2

FHWA Traffic Noise Prediciton Model (FHWA-RD-77-108)
Noise Barrier Effectiveness Prediction Worksheet

Project Information

Job Number: 2004-064
Project Name: Canterbury Residential Subdivision
Roadway Name: Pease Road
Location(s): Nearest Backyards

Noise Level Data

Year: Future
Auto Ldn, dB: 61
Medium Truck Ldn, dB: 56
Heavy Truck Ldn, dB: 61

Site Geometry

Receiver Location: Backyard
Centerline to Barrier Distance: 90
Barrier to Receiver Distance: 20
Automobile Elevation: 0
Medium Truck Elevation: 2
Heavy Truck Elevation: 8
Receiver Elevation: 5
Start Barrier Calcs at Elevation 6

Barrier Effectiveness

	Ldn, dB			
Barrier Elevation, Feet	Autos	Medium Trucks	Heavy Trucks	Total
6	55	50	56	59
7	54	49	55	58
8	53	48	54	57
9	52	47	53	56
10	51	46	52	55
11	50	45	51	54
12	49	44	50	53
13	48	43	49	52