Department of Development Services Paula M. Daneluk, AICP, Director
Curtis Johnson, Assistant Director

7 County Center Drive
Oroville, California 95965

T: 530.552.3700
F: 530.538.7785

buttecounty.net/dds

March 28, 2022

Re: TPM21-0009 (Symmes) – Update to the Initial Study (IS)/Mitigated Negative Declaration (MND)/Mitigation Measure Agreement (MMA)

Butte County Submitted an IS/MND for TPM21-0009 (Symmes) to the State Clearinghouse for review on February 7, 2022 and had a 30-day review until March 8, 2022. Butte County received comments from the California Department of Fish & Wildlife on the IS/MND. Based on those comments. The IS/MND and MMA were updated to address the comments. Other small corrections were also made.

The updates, shown as underlined (new) and strike-through (removed) are included:

IS/MND
Page 1 – Incorrect project file name
Page 25 – Section 1.4.a
Page 26 – Section 1.4.b
Pages 27 & 28 – New Mitigation (BIO-1)
Pages 28 & 29 – New Mitigation (BIO-2)
Page 29 – Renumbered and Modified Mitigation (BIO-1 to BIO-3)
Page 30 – Section 1.5.a – Removed language not part of the project
Page 37 – Section 1.7.f

Also included with the resubmittal are:
Oak Tree Mitigation Plan. February 25, 2019.
Addendum to Oak Tree Mitigation Plan. April 11, 2019.

UPDATED
INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

PROJECT INFORMATION

1.	Project Title:	Tony Symmes Tentative Parcel Map ~~TPM18-0003~~ (TPM21-0009)
2.	Lead Agency Name and Address:	Butte County – Department of Development Services Planning Division 7 County Center Drive Oroville, CA 95965
3.	Contact Person and Phone Number:	Mark Michelena, Senior Planner 530.552.3683 michelena@buttecounty.net
4.	Project Location:	The project site is located on the south side of Durham-Dayton Highway approximately 250 feet west of Stanford Lane, east of Durham. ~~Section 99~~ Rancho Esquon Landgrant; MDB&M. APN: 040-200-096. Longitude 39°38'38.87"N, Latitude -121°47'16.171"W.
5.	Project Sponsor's Name and Address:	Tony Symmes P.O. Box 617 Chico, CA 95927
6.	General Plan Designation:	Very Low Density Residential (VLDR)
7.	Zoning:	VLDR-1.0 (Very Low Density Residential – 1-acre minimum)

8. Description of Project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

The project is a Tentative Parcel Map to divide a 5.93 acre property into three parcels (1.52, 1.89, and 2.52 acres each). The project parcel is developed with a residence and accessory structures. The project parcel fronts on Durham-Dayton Highway, a publicly-maintained paved road. Future residences will be served by individual wells until a Durham Irrigation District (DID) waterline is installed on Durham-Dayton Highway along the parcel frontage. The project will be conditioned to require the installation of waterlines to allow for connection to DID water. The parcels will be served by individual septic systems. The parcels will be served a proposed cul-de-sac within a 60-foot easement, The cul-de-sac also serves an additional parcel that is not part of the project.

Pursuant to the requirements of Butte County Code §24-56.1 (Residential Setback from Orchards and Vineyards), in consultation with the Agricultural Commissioner's Office, future residential dwellings shall be located as far from the west parcel boundaries as possible, as long as there is an existing agricultural use on the parcel located to the west of the project parcel. There is an existing orchard to the west of the project site. The residential setback will require that dwellings be placed from the west property line a minimum of 80 feet for parcels 1 and 2 and 50 feet for parcel 3. There is a minimum residential setback form the south property line of 75 feet for parcel 3. The Agricultural setback shall be annotated on each proposed parcel. Each of the proposed three parcels is provided

with adequate space for the construction of single family dwellings outside of the required residential setbacks. These minimum setbacks will not be in effect if the adjacent agricultural operation is removed.

9. Surrounding Land Uses and Setting: (Briefly describe the project's surroundings)

   Surrounding parcels range in size from 0.2 acres up to 49.4 acres, with residential and agricultural uses.

Direction	General Plan Designation	Zoning	Existing Land Use(s)
North	Very Low Density Residential	VLDR-1.0	Residential
South	VLDR	VLDR-1.0	Residential/Agriculture (Orchard & Vineyard)
East	VLDR	VLDR-1.0	Residential
West	VLDR	VLDR-1.0	Agriculture (Orchard)

   The project site and surrounding area is zoned VLDR-1.0. The purpose of the VLDR zone is to allow for single-family homes and related uses in residential neighborhoods within the county. Standards for the VLDR zone are intended to preserve and protect the character of existing neighborhoods and to ensure that new residential neighborhoods provide an appropriate transition from rural to more developed areas. Permitted residential uses in the VLDR zones include single-family homes, small residential care homes, second units and accessory dwelling units, animal grazing, on-site agricultural product sales, and private stables. The VLDR zone also conditionally permits non-residential uses compatible with a residential setting, including public and quasi-public uses, golf courses, park and recreational facilities, personal services, animal-keeping, large residential care homes, and medical offices and clinics. The minimum permitted parcel size in the VLDR zone is 1 acre. The VLDR zone implements the Very Low Density Residential land use designation in the General Plan.

   The project site is comprised of level topography in the valley region, situated approximately 3,300 feet east of downtown Durham, and approximately 3.5 miles west of State Highway 99. The parcel fronts on Durham-Dayton Highway, a county-maintained roadway. The project site is developed with an existing single-family residence and accessory structures including an on-site septic system and well, which are all situated on the southern portion of the property (proposed Lot 4). The remaining areas of the property are comprised of annual grasslands scattered valley oak and other trees. No agricultural uses currently occur on the project site; however, the southern portion of the site had been historically used for orchards.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or participation agreement)

    - Butte County Department Development Services: Building Permits (Future Construction)
    - Butte County Public Works Department: Road and Grading Improvement Plans
    - Durham Irrigation District
    - Butte Local Agency Formation Commission

11. 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.?

    See Discussion 1.18

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages. Where checked below, the topic with a potentially significant impact will be addressed in an environmental impact report.

☐	Aesthetics	☐	Agriculture and Forest Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology / Soils	☐	Greenhouse Gas Emissions	☐	Hazards / Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation	☐	Tribal Cultural Resources
☐	Utilities / Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance
		☐	None	☒	None with Mitigation Incorporated

DETERMINATION (To be completed by the Lead Agency)

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 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.

Mark Michelena March 28, 2022

Mark Michelena, Senior Planner — Date

Dan Breedon, Planning Manager — Date

EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

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

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:
   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

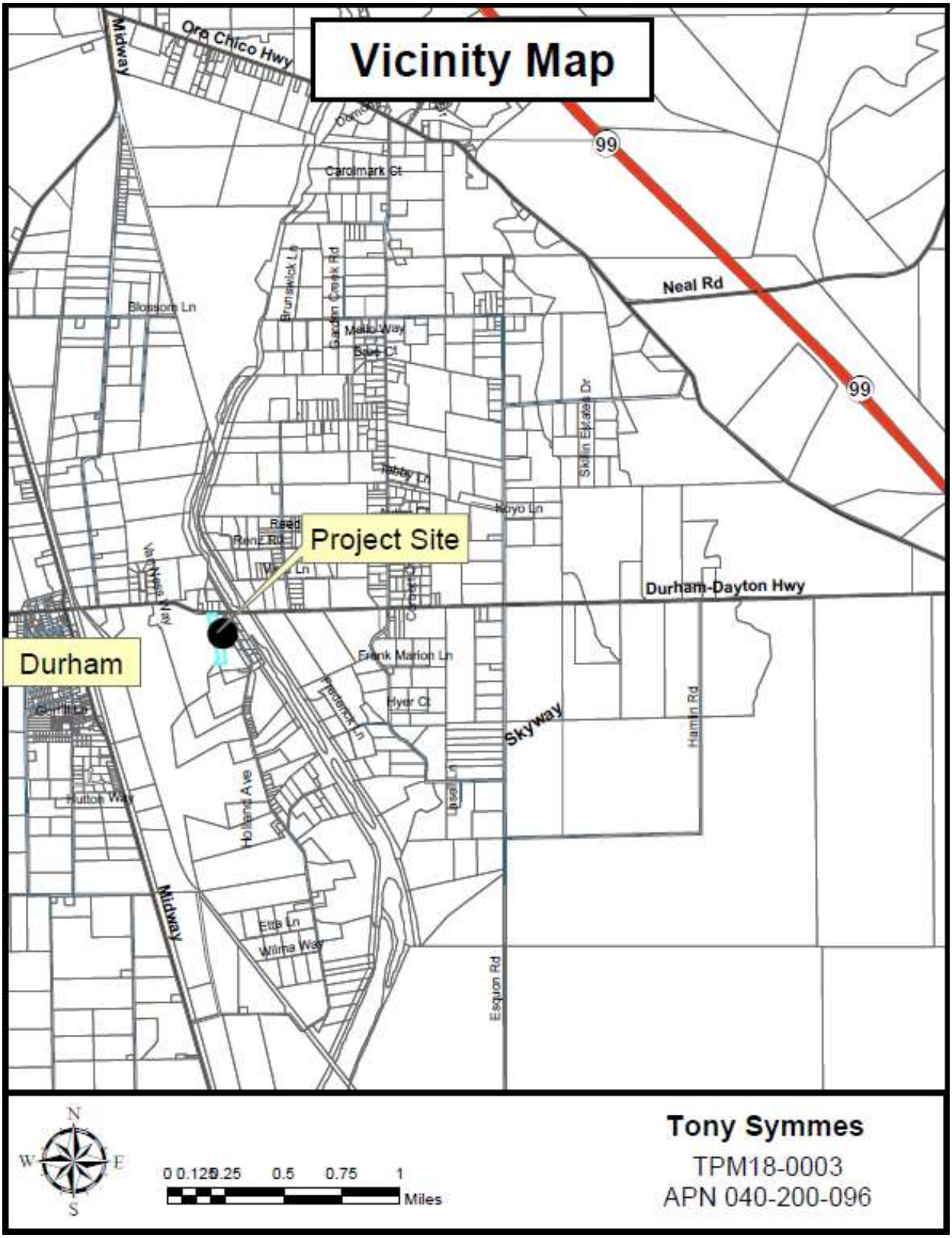


Figure 1 - Project Vicinity Map

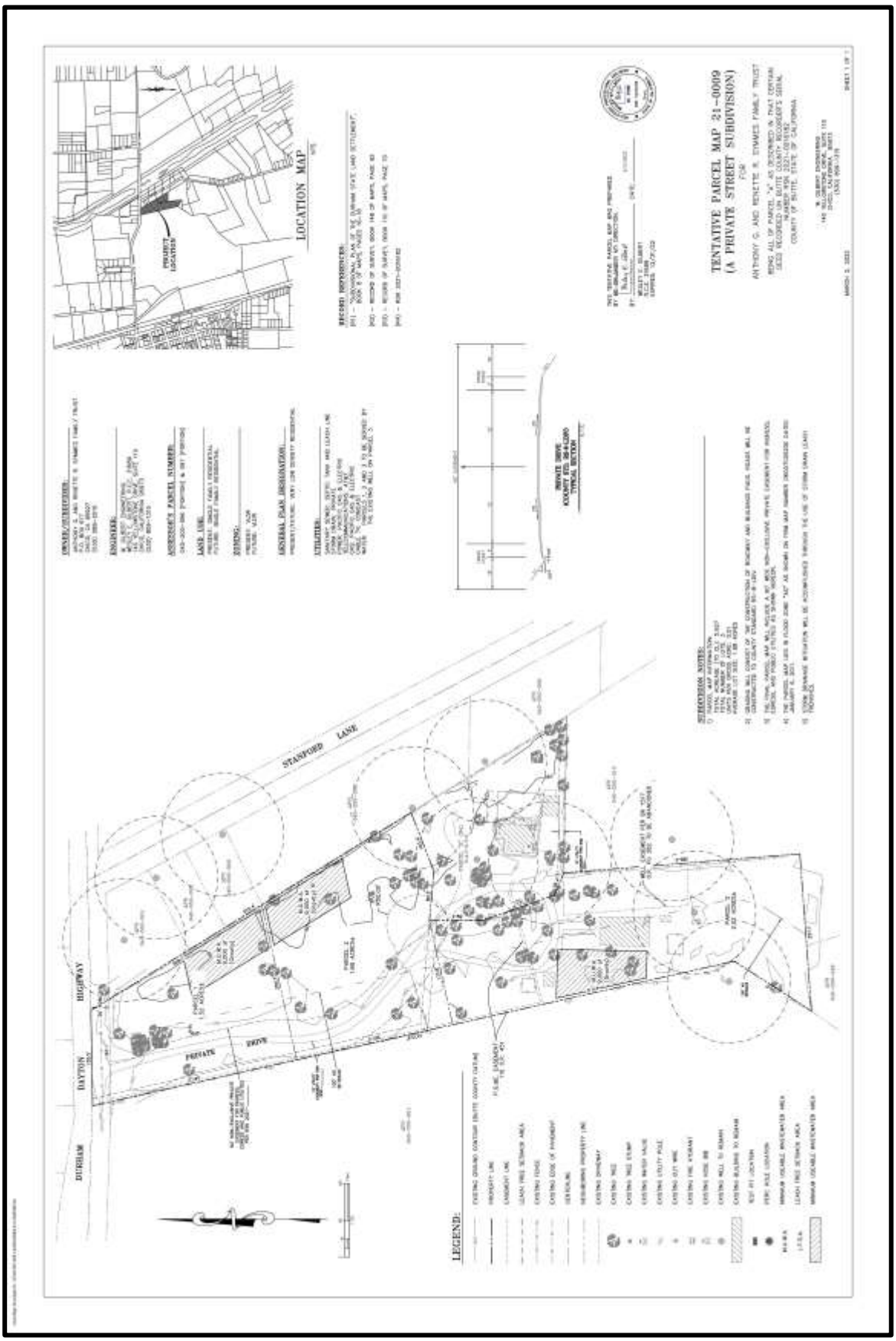


Figure 2 – Proposed Tentative Parcel Map (Updated)

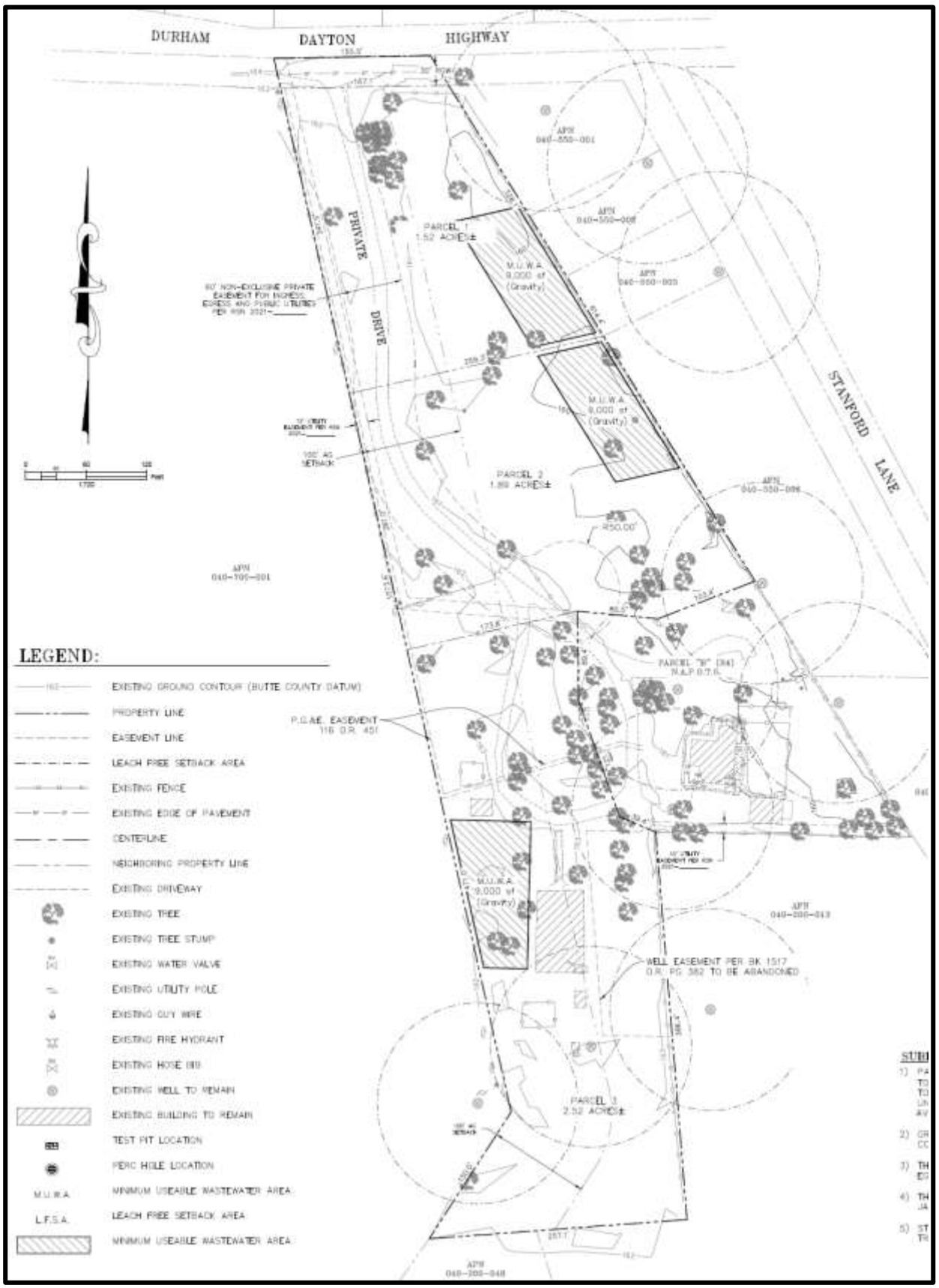


Figure 3 – Proposed Tentative Parcel Map

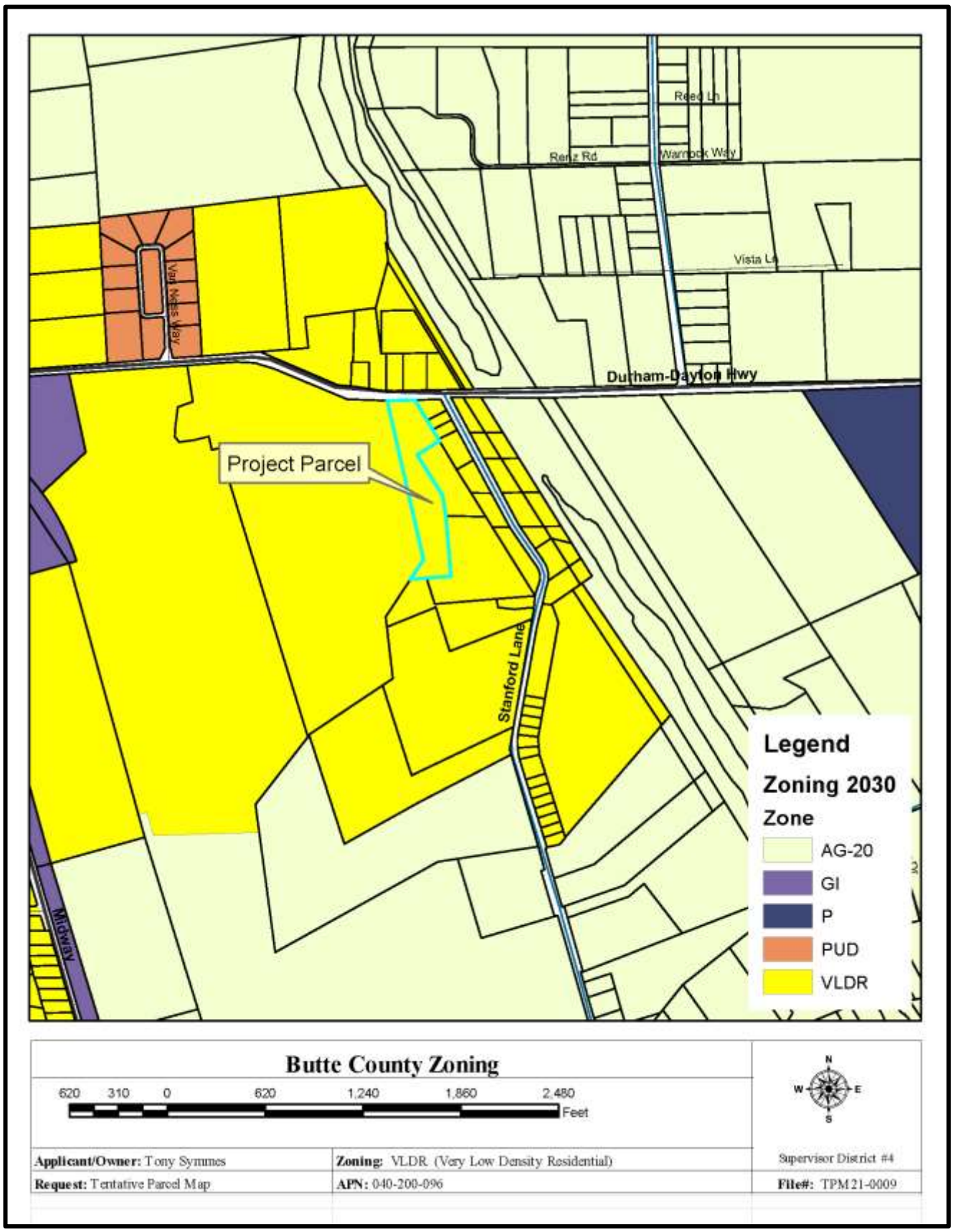


Figure 4 – Zoning Exhibit

1.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics.				
Except as provided in Public Resources Code section 21099 (where aesthetic impacts shall not be considered significant for qualifying residential, mixed-use residential, and employment centers), would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting

The project site area is characterized as residential and agricultural uses situated in the valley region of Butte County, east of Durham. Surrounding uses include residential and agriculture (orchards) on lots ranging from 0.2 to 49.4 acres.

The topography of the project area is gentle and flat, with an elevation of approximately 160 feet above sea level. Natural vegetation in the area consists of annual grasslands, oak trees and forbs. The most prominent human-made features are the residences, accessory structures, driveway, and utility lines.

The Butte County General Plan depicts identified scenic resources in Butte County, including land-based and water-based scenic resources (Figure COS-7), County scenic highways (Figure COS-8), and Scenic Highway Zones (Figure COS-9). Based on the information provided in the General Plan, the project site is not located within, or in the vicinity of, identified scenic resources.

Discussion

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

Less than significant impact. The predominate views from the project site and surrounding area are the Sierra Nevada and Cascade Mountain Ranges to the east and north. Due to the level topography of the project area, residential structures and landscaping features on the project site may partially interfere with views of the mountain ranges from residences located immediately west of the project site. Future development on the resultant parcels may include permitted and conditionally-permitted uses allowed within the Very Low Density (VLDR) zoning designation. Permitted development on the resultant parcels are consistent with the existing visual characteristics of the surrounding area. In addition, the proposed parcel sizes, as well as the visual compatibility of permitted uses with the surrounding area, will be consistent with surrounding residential uses

and will not substantially interfere with the scenic views, or otherwise have a demonstrable negative aesthetic effect.

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

No impact. No scenic resources have been identified on the project site. The project site is also not located adjacent to a state-designated or county-designated scenic highway. Therefore, future development would not damage or degrade scenic resources within a state scenic highway.

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 points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than significant impact. The nearest publicly accessible area to the project site is Durham-Dayton Highway, Permitted development include uses and densities are similar to the surrounding area, and would not result in negatively altering the character or visual quality of the project site and surrounding area.

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

Less than significant impact. Outdoor lighting for safety and security could potentially be added in the future on the resultant parcels. Development of these parcels would be similar with the rural character already established in the surrounding areas. Any new outdoor lighting in residential zones are subject to *Article 14, Section 24-67 of Butte County Zoning Code*, which requires that all outdoor lighting in residential areas be located, adequately shielded, and directed such that no direct light falls outside the property perimeter, or into the public right-of-way. With implementation of outdoor lighting regulations, the proposed project would not create new sources of substantial lighting or glare that would generate a significant impact.

1.2 AGRICULTURE AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agriculture and Forest 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 (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.				
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Setting

The project site is developed with a single-family residence and associated structures, septic system, well pumps, and electrical utilities running to the pump. The site is designated Very Low Density Residential (VLDR) by the Butte County General Plan and is zoned VLDR – 1.0. The VLDR zone is primarily for single-family residences on lots with a minimum parcel size of one acre. The VLDR zone allows for limited agricultural uses. The project area has been historically used as orchard land and residential development.

Regulatory Setting

Williamson Act/Land Conservation Act (LCA) Contracts

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents. The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 9-year term that is automatically renewed each year, unless the property owner or county requests a non-renewal or the contract is cancelled.

Farmland Mapping and Monitoring Program

The California Farmland Mapping and Monitoring Program (FMMP) develops statistical data for analyzing impacts to California's agricultural resources. The FMMP program characterizes "Prime Farmland" as land with the best combination of physical and chemical characteristics that are able to sustain long-term production of agricultural crops. "Farmland of Statewide Importance" is characterized as land with a good combination of physical and chemical characteristics for agricultural production, but with less ability to store soil moisture than prime farmland. "Unique Farmland" is used for production of the state's major crops on soils not qualifying as prime farmland or of statewide importance. The FMMP also identifies "Grazing Land", "Urban and Built-up Land", "Other Land", and "Water" that is not included in any other mapping category.

California Public Resources Code Section 4526

"Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.

California Public Resources Code Section 12220(g)

"Forest land" is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.

Butte County Right to Farm Ordinance

Butte County has adopted a Right to Farm Ordinance (Butte County Code Chapter 35, Protection of Agricultural Land). This ordinance protects properly conducted agricultural operations in the unincorporated County against nuisance lawsuits, and requires annual disclosure to all property owners within the County of the right to farm. In addition, the ordinance requires disclosure to buyers of real property and as part of development approvals. While the County Right-to-Farm Ordinance specifically applies to commercial agricultural operations within the unincorporated area, all commercial agricultural operations that comply with agricultural standards currently are protected from nuisance claims under State law (Section 3482.5 of the California Civil Code), whether located within cities or unincorporated areas.

Residential Setback from Orchards and Vineyards in Residential Zones

The Butte County Zoning Ordinance Section 24-56.1 requires a minimum 25-foot setback to be established between new residential development and existing, active orchards and vineyards that are located in Residential zones. Proposed land divisions adjacent to an active orchard or vineyard shall be reviewed by the Agricultural Commissioner, in consultation with the Development Services Department, to determine an appropriate setback width, which shall be publicity noticed and reviewed by the hearing body. The residential setback from orchards and vineyards is subject to the following requirements (Refer to Article 17. Agricultural Buffers, for agricultural buffer setbacks required where a developing residentially zoned parcel is adjacent to a parcel zoned Agriculture):

A. A setback between a new residence and an existing active orchard or vineyard shall be established as far away from the orchard or vineyard as practicable, taking into account adjacent agricultural uses and practices, provided it does not limit the allowed residential density permitted by the residential zone, and in no case, is less than 25 feet.

B. Any proposed land division adjacent to an existing active orchard or vineyard use shall apply for a Residential Setback Recommendation with the Development Services Department in accordance with this section. The Residential Setback Recommendation shall be reviewed by the Agricultural Commissioner, in consultation with Development Services to determine an appropriate setback width (pursuant to Subsection A.). The Residential Setback Recommendation shall become part of the application and reviewed by the hearing body. Public noticing shall include reference to the Residential Setback Recommendation and the residential setback's recommended width.

C. All building permits for residential development adjacent to existing orchards or vineyards shall be reviewed for compliance with the required residential setback. If no residential setback is shown on an applicable recorded parcel map or subdivision map, a review by the Zoning Administrator at a noticed public hearing shall be conducted to determine the appropriate setback pursuant to Subsection A.

D. The residential setback shall be imposed from the property line (s) on the developing parcel and shown on the recorded parcel map or subdivision map or building permit site plan.

E. The setback shall not apply to residential development adjacent to row crops or greenhouses and wholesale nurseries primarily engaged in growing crops, plants, vines or trees and their seeds.

Discussion

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?

No impact. The California Farmland Mapping and Monitoring Program designates the project parcel as "Other Land", which is 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, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. Only lands categorized as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance (if adopted by the county) are designated as Important Farmland. The proposed project is not located on lands designated as Important Farmland in the Farmland Mapping and Monitoring Program, and would not result in the conversion of Important Farmland to a non-agricultural use.

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

Less than significant impact. The project site is not under a Williamson Act Contract and there are no parcels under a Williamson Act Contract within 300 feet of the project site. The project site and surrounding area is zoned Very Low Density Residential. Pursuant to the requirements of Butte County Code §24-56.1 (Residential Setback from Orchards and Vineyards), in consultation with the Agricultural Commissioner's Office, future residential dwellings shall be located as far from the west parcel boundaries as possible, as long as there is an existing agricultural use on the parcel located to the west of the project parcel. There is an existing orchard to the west of the project site. The residential setback will require that dwellings be placed from the west property line a minimum of 80 feet for parcels 1 and 2 and 50 feet for parcel 3. There is a minimum residential setback form the south property line of 75 feet for parcel 3. The Agricultural setback shall be annotated on each proposed parcel. Each of the proposed three parcels is provided with adequate space for the construction of single family dwellings outside of the required residential setbacks. These minimum setbacks will not be in effect if the adjacent agricultural operation is removed.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No impact. The project site and surrounding area is not classified as forestland, as defined in Public Resources Code Section 12220(g), or as timberland, as defined in Public Resources Code Section 4526. The project site is not zoned or designated for forest or timber resource uses.

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

No impact. The project site is located in the valley region of Butte County and does not contain trees or timber resources classified as forestland, as defined in Public Resources Code Section 12220(g), or as timberland, as defined in Public Resources Code Section 4526. Therefore, the proposed project would not result in loss or conversion of forest land to a non-forest use.

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?

No impact. The project site is designated as "Other Land" under the California Farmland Mapping and Monitoring Program. Lands within 300 feet of the project site are designated "Grazing Land and "Other". No prime, unique or farmland of statewide importance occurs on the project site, or in the immediate vicinity of the project site. Therefore, the project would not result in the conversion of Farmland to a non-agricultural use.

1.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to make the following determinations.				
Are significance criteria established by the applicable air district available to rely on for significance determinations?		☒ Yes		☐ No
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Environmental Setting

Butte County is located within the Sacramento Valley Air Basin (SVAB), comprising the northern half of California's 400-mile long Great Central Valley. The SVAB encompasses approximately 14,994 square miles with a largely flat valley floor (excepting the Sutter Buttes) about 200 miles long and up to 150 miles wide, bordered on its east, north and west by the Sierra Nevada, Cascade and Coast mountain ranges, respectively.

The SVAB, containing 11 counties and some two million people, is divided into two air quality planning areas based on the amount of pollutant transport from one area to the other and the level of emissions within each. Butte County is within the Northern Sacramento Valley Air Basin (NSVAB), which is composed of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, and Yuba Counties.

Emissions from the urbanized portion of the basin (Sacramento, Yolo, Solano, and Placer Counties) dominate the emission inventory for the Sacramento Valley Air Basin, and on-road motor vehicles are the primary source of emissions in the Sacramento metropolitan area. While pollutant concentrations have generally declined over the years, additional emission reductions will be needed to attain the State and national ambient air quality standards in the SVAB.

Seasonal weather patterns have a significant effect upon regional and local air quality. The Sacramento Valley and Butte County have a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winter weather is governed by cyclonic storms from the North Pacific, while summer weather is typically subject to a high pressure cell that deflects storms from the region.

In Butte County, winters are generally mild with daytime average temperatures in the low 50s°F and nighttime temperatures in the upper 30s°F. Temperatures range from an average January low of approximately 36°F to an average July high of approximately 96°F, although periodic lower and higher temperatures are common. Rainfall between

October and May averages about 26 inches but varies considerably year to year. Heavy snowfall often occurs in the northeastern mountainous portion of the County. Periodic rainstorms contrast with occasional stagnant weather and thick ground or "tule" fog in the moister, flatter parts of the valley. Winter winds generally come from the south, although north winds also occur.

Diminished air quality within Butte County largely results from local air pollution sources, transport of pollutants into the area from the south, the NSVAB topography, prevailing wind patterns, and certain inversion conditions that differ with the season. During the summer, sinking air forms a "lid" over the region, confining pollution within a shallow layer near the ground that leads to photochemical smog and visibility problems. During winter nights, air near the ground cools while the air above remains relatively warm, resulting in little air movement and localized pollution "hot spots" near emission sources. Carbon monoxide, nitrogen oxides, particulate matters and lead particulate concentrations tend to elevate during winter inversion conditions when little air movement may persist for weeks.

As a result, high levels of particulate matter (primarily fine particulates or PM2.5) and ground-level ozone are the pollutants of most concern to the NSVAB Districts. Ground-level ozone, the principal component of smog, forms when reactive organic gases (ROG) and nitrogen oxides (NOx) – together known as ozone precursor pollutants – react in strong sunlight. Ozone levels tend to be highest in Butte County during late spring through early fall, when sunlight is strong and constant, and emissions of the precursor pollutants are highest (Butte County CEQA Air Quality Handbook 2014).

Air Quality Attainment Status

Local monitoring data from the BCAQMD is used to designate areas a nonattainment, maintenance, attainment, or unclassified for the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The four designations are further defined as follows:

Nonattainment – assigned to areas where monitored pollutant concentrations consistently violate the standard in question.

Maintenance – assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.

Attainment – assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.

Unclassified – assigned to areas were data are insufficient to determine whether a pollutant is violating the standard in question.

Table 1.3-1. Federal and State Attainment Status of Butte County

POLLUTANT	STATE DESIGNATION	FEDERAL DESIGNATION
1-hour ozone	Nonattainment	-
8-hour ozone	Nonattainment	Nonattainment
Carbon monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
24-Hour PM10	Nonattainment	Attainment
24-Hour PM2.5	No Standard	Attainment
Annual PM10	Attainment	No Standard
Annual PM2.5	Nonattainment	Attainment

Source: Butte County AQMD, 2018

Sensitive Receptors

Sensitive receptors are frequently occupied locations where people who might be especially sensitive to air pollution are expected to live, work, or recreate. These types of receptors include residences, schools, churches, health care facilities, convalescent homes, and daycare centers. The project site is located in a mix of agricultural, rural and suburban residential uses on parcel sizes between 0.22 and 49.4 acres. Table 1.3-2 lists sensitive receptors that were identified in the project vicinity and the distances from the project site.

Table 1.3-2. Sensitive Receptors in the Project Vicinity

SENSITIVE RECEPTORS	DISTANCE FROM PROJECT SITE TO RECEPTOR
Residence (2118 Durham-Dayton Hwy)	185 feet north
Residence (2114 Durham-Dayton Hwy)	200 feet north
Residence (2130 Durham-Dayton Hwy)	210 feet north
Residences (9397, 9391, 9387, 9383, 9367 & 9348 Stanford Lane and 2123 Durham-Dayton Hwy)	60 feet east
Source: Butte County Geographical Information System/Google Earth imagery	

Butte County Air Quality Management District

The Butte County Air Quality Management District (BCAQMD) is the local agency with primary responsibility for compliance with both the federal and state standards and for ensuring that air quality conditions are maintained. They do this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues.

Activities of the BCAQMD include the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, issuance of permits for stationary sources of air pollution, inspection of stationary sources of air pollution and response to citizen complaints, monitoring of ambient air quality and meteorological conditions, and implementation of programs and regulations required by the FCAA and CCAA.

According to the State CEQA Guidelines, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. BCAQMD is responsible for ensuring that state and federal ambient air quality standards are not violated within Butte County. Analysis requirements for construction and operation-related pollutant emissions are contained in BCAQMD's *CEQA Air Quality Handbook: Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. Established with these guidelines are screening criteria to determine whether or not additional modeling for criteria air pollutants is necessary for a project. The CEQA Air Quality Handbook also contains thresholds of significance for construction-related and operation-related emissions: ROG, NOx and PM10. The screening criteria listed in Table 1.3-4 were created using CalEEMod version 2013.2.2 for the given land use types. To determine if a proposed project meets the screening criteria, the size and metric for the land use type (units or square footage) should be compared with that of the proposed project. If a project is less than the applicable screening criteria, then further quantification of criteria air pollutants is not necessary, and it may be assumed that the project would have a less than significant impact for criteria air pollutants. If a project exceeds the size provided by the screening criteria for a given land use type then additional modeling and quantification of criteria air pollutants should be performed (Butte County Air Quality Management District 2014).

Table 1.3-4. Screening Criteria for Criteria Air Pollutants

LAND USE TYPE	MAXIMUM SCREENING LEVELS FOR PROJECTS
Single-Family Residential	30 Units
Multi-Family (Low Rise) Residential	75 Units
Commercial	15,000 square feet
Educational	24,000 square feet
Industrial	59,000 square feet
Recreational	5,500 square feet
Retail	11,000 square feet
Source: Butte County AQMD, CEQA Air Quality Handbook, 2014	

Discussion

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

Less than significant impact. The applicable air quality plan for the project area is the *Northern Sacramento Valley Planning Area 2015 Triennial Air Quality Attainment Plan*. In adopting this plan, BCAQMD assumes that growth within its jurisdiction will be in accordance with city and county general plans, for which air quality effects associated with build-out have been analyzed.

A project is deemed inconsistent with an air quality plan if it would result in population or employment growth that exceeds the growth estimates in the applicable air quality plan (i.e., generating emissions not accounted for in the applicable air quality plan emissions budget). Therefore, proposed projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rate included in the applicable air quality plan.

The proposed project could result in minor population growth in the County with build-out of the resultant parcels. However, the proposed development density is consistent with the established zoning, and population growth to the area has already been anticipated for under Butte County General Plan 2030. Additionally, the total number of single-family residential units generated by the project are below the maximum screening criteria established in Table 1.3-3. Therefore, the project is not anticipated to cause significant impacts to regional air quality, or otherwise conflict with the basin's air quality management plan, provided that best management practices for the control of fugitive dust during construction activities are employed.

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?

Less than significant impact with mitigation incorporated. The proposed project has the potential to impact air quality primarily in two ways: (1) the project would generate mobile source emissions (i.e., added vehicle trips, energy use) associated with future development on the resultant parcels, and (2) construction activities associated with the development of the resultant parcels would generate fugitive dust (PM10) from grading activities, construction exhaust emissions (PM10, NOx), and evaporative emissions of reactive organic gases (ROG or VOC) from paving activities and architectural coatings.

Mobile source emissions are produced from motor vehicles, and include tailpipe and evaporative emissions. Energy use associated with future development also generate emission from heating and cooling systems, lighting, applicant, water use and wastewater. Future development of the resultant parcels have the potential to generate these direct and indirect emissions. Emissions generated during at build-out of the resultant parcels are not expected to be substantial, and would not significantly violate existing air quality standards, because only a limited amount development would occur over the project site. The limited amount of

development to occur with the proposed project was compared to the screening criteria of Table 1.3-3, and deemed to have a less than significant impact to the environment.

Construction-related emissions are generally created throughout the course of project implementation and parcel development, and would originate from construction equipment exhaust, employee vehicle exhaust, dust from grading the land, exposed soil eroded by wind, and ROGs from architectural coating and asphalt paving. Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of equipment, number of personnel, wind and precipitation conditions, and soil moisture content. Despite this variability in the project and project site conditions, there are a number of feasible control measures that can be reasonably implemented to reduce construction-related emissions to a less than significant level. These measures as well as other common air pollution control measures are recommended in *Appendix C of BCAQMD's CEQA Handbook (2014)*, and are to be implemented as Mitigation Measure AIR-1, listed below.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact with mitigation incorporated. Sensitive receptors in the project area and their distances from the project site area contained Table 1.3-2. Based on the information provided in section b.), above, the proposed project would not result in the violation of any air quality standards or contribute substantially to an existing or projected air quality violation, except for potential fugitive dust emissions during construction activities. Implementation of Mitigation Measure AIR-1 would reduce potential cumulative fugitive dust emission impacts to a less than significant level.

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

Less than significant impact. Future permitted uses on the resultant parcels would not create objectionable odors. However, future construction activities could include objectionable odors from tailpipe diesel emissions and from solvents in adhesives, paints, caulking materials, and new asphalt. Since odor impacts would be temporary and limited to the area adjacent to the construction operations, and because the project site is located in a rural area of the county, odors would not impact a substantial number of people for an extended period of time.

Mitigation Measures

Mitigation Measure AIR-1

The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "Dust generated by the development activities shall be kept to a minimum and retained on-site. Follow the air quality control measures listed below:

Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds

- All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.

- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted areas.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce perk hour emissions.

Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project (see http:www.arb.ca.gov/toxics/atcm/atcm.htm).
- Stationary sources shall comply with applicable District rules and regulations.

Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200 and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Butte County Air Quality Management District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality Management District - (530) 332-9400 for any questions or concerns about dust from the project."

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased

watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area.

Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to $25,000 per violation.

Plan Requirements: The note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. This note shall also be placed on all building and site development plans.

Timing: Requirements of the condition shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Building inspectors shall spot check and shall ensure compliance on-site. Butte County Air Pollution Control District inspectors shall respond to nuisance complaints.

1.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources.				
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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?	☐	☐	☒	☐
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?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Setting

The project site and vicinity is characterized by a mix of rural residential and agricultural uses situated in the rural valley region of Butte County, east of Durham. Surrounding parcels range in size from 0.2 acres up to 49.4 acres. The project site (~~5.05~~5.93 acres) is developed with a residential dwelling and accessory structures. The topography of the project area is gentle and flat, with an elevation of approximately 160 feet above sea level. Vegetation in the area consists primarily of valley oaks, ornamental street trees and grasses and forbs. The most prominent human-made features in the area are the residences, accessory structures, roads and utility lines.

Agriculture

The agricultural natural community is comprised of several land cover types including orchards and vineyards, rice, irrigated cropland, irrigated pasture, and non-native woodland. Agriculture occurs where the soils and topography are most suitable for production, which are generally the flat and well-drained areas located in the valley region of the County. Conversion of lands to an agricultural use has resulted in the removal of most of the historical native habitat. Agriculture natural community areas generally don't support the wildlife compared with most native habitats; however, these areas continue to support abundant wildlife and provide essential breeding, foraging and roosting habitat for many resident and migrant wildlife species.

Jurisdictional Waters of the United States, including Wetlands

Waters of the United States (U.S.), including wetlands, are broadly defined to include navigable waterways, and tributaries of navigable waterways, and adjacent wetlands. Although definitions vary to some degree, wetlands are generally considered to be areas that are periodically or permanently inundated by surface water or groundwater, supporting vegetation adapted to life in saturated soil. Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the U.S. Army Corps of Engineers (USACE). The USACE holds sole authority to determine the jurisdictional status of waters of the U.S., including wetlands. Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetland and waters of the U.S. provide critical habitat components, such as nest sites and reliable source of water for a wide variety of wildlife species.

No aquatic features on the project site were identified. No formal delineation of jurisdictional waters was performed for the project site; and any potential aquatic features of the project site are not expected to meet USACE jurisdictional criteria due to the limited inputs of water, and the project's site distance from area waterways designated as Waters of the United States. The nearest water way is Butte Creek, which is located approximately 500 to 800 feet east of the project site.

Special-Status Species

Many species of plants and animals within the State of California have low populations, limited distributions, or both. Such species may be considered "rare" and are vulnerable to extirpation as the state's human population grows and the habitats these species occupy are converted to agricultural and urban uses. A sizable number of native species and animals have been formally designated as threatened or endangered under State and Federal endangered species legislation. Others have been designated as "Candidates" for such listing and the California Department of Fish and Wildlife (CDFW) has designated others as "Species of Special Concern". The California Native Plant Society (CNPS) has developed its own lists of native plants considered rare, threatened or endangered. Collectively, these plants and animals are referred to as "special status species."

Various direct and indirect impacts to biological resources may result from the small amount of development enabled by the project, including the loss and/or alteration of existing undeveloped open space that may serve as habitat. Increased vehicle trips to and from the project site can result in wildlife mortality and disruption of movement patterns within and through the project vicinity. Disturbances such as predation by pets (e.g., cats and dogs) and human residents may also occur at the human/open space interface, while conversion of land from lower to higher density residential use can lead to a predominance of various urban-adapted wildlife species (e.g., coyotes, raccoons, ravens and blackbirds) that have been observed to displace more sensitive species.

California Environmental Quality Act Guidelines Section 15065 requires a mandatory finding of significance for projects that have the potential to substantially degrade or reduce the habitat of a threatened or endangered species, and to fully disclose and mitigate impacts to special status resources. For the purposes of this Initial Study, the California Environmental Quality Act (Sections 21083 and 21087, Public Resources Code) defines mitigation as measure(s) that:

- Avoids the impact altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment.

- Reduces or eliminates the impact over time by preservation and maintenance operations during the life of the project.
- Compensates for the impact by replacing or providing substitute resources or environments.

The California Natural Diversity Database (CNDDB) was reviewed to determine if any special-status species have the potential to occur on the project site or in the vicinity. Table 4.4-1 lists the regulatory status and habitat requirements for each special-status species identified within a two-mile radius of the project site.

Table 4.4-1 Federal and State Listed Species in the vicinity of the project site

Scientific Name	Common Name	FEDLIST	CALLIST	CNPS List	CDFW Status	Habitat
Fritillaria pluriflora	adobe-lily	None	None	1B.2		Grassland, Oak Woodland & Savanna
Fritillaria eastwoodiae	Butte County fritillary	None	None	3.2		Chaparral, Cismontane woodland, Lower montane coniferous forest (openings)
Sidalcia robusta	BC Checkerbloom	None	None	1B.2		Chaparral and woodland areas
Oncorthynchus mykiss irideus	steelhead - Central Valley DPS	Threatened	None			Rivers and their tributaries
Eumops perotis californicus	western mastiff bat	None	None		SSC	Roosting - Rocky outcrops, crevices, cliffs; Foraging - Woodlands and forest scrub, chaparral, grassland and agriculture

Source: California Native Diversity Database Version 5; November 2021

Discussion

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 Wildlife or the U.S. Fish and Wildlife Service?

Less than significant impact with mitigation incorporated. The project site contains limited habitat that can support plant and invertebrates, considered as candidate, sensitive or special status species by the California Department of Fish and Wildlife and United States Fish and Wildlife Service. In addition, no species have been or were identified on site. The site is developed with a residential dwelling and accessory structures, with surrounding uses of residential and agriculture. The additional development potential generated by the proposed project may lead to various direct and indirect impacts to biological resources in, and around, the project site. However, due to existing conditions and the limited amount of development potential enabled by the proposed project, the anticipated minor increase in residential units would not significantly degrade or reduce the habitat values on the project site.

The western mastiff bat is not federally or state listed, but is identified as a special species of concern by the California Department of Fish & Wildlife. ~~The western mastiff bat's roosting habitat includes rocky outcroppings, crevices and cliffs. The project site and surrounding area does not include this type of features.~~ The Project site contains habitat that may be suitable for tree roosting bats. Disturbance of roost sites during the maternity and hibernation seasons are considered primary factors that may negatively impact bats and have the potential to result in take. During the hibernation period, bats are very slow to respond to disturbance and can lose fat stores needed to survive the winter, while pups in the maternity colony may not have the ability to fly. The disturbance and removal of roost sites may have a significant adverse effect to bats. The primary foraging habitat includes woodlands and forest scrub, chaparral, grassland and agriculture. Mitigation Measure BIO-1, below will avoid significant impacts to tree roosting bats. ~~Although the surrounding area includes agriculture, based on the project site and surrounding not having the suitable roosting habitat, the project has a less than significant impact on the bat.~~

The steelhead trout requires a body of water, such as a river, streams and their tributaries. The subject property is located a minimum of 500 feet west pf Butte Creek. The proposed project's future development will not have an impact on the steelhead trout.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?

~~No impact~~ Less than significant impact with mitigation incorporated. ~~The project site is not identified as containing a Sensitive Natural Community (SNC).~~ There are no waterways or riparian habitat on the project parcel. The project does include valley oak woodlands. While, no development is proposed as part of the project, future development could impact the valley oak woodlands. An Oak Tree Mitigation Plan and Addendum were provided to staff identifying the valley oaks located on the project site. Implementation of Mitigation Measure BIO-2 would avoid potential significant impacts to the onsite valley oaks associated with future residential development.

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?

Less than significant impact. No vernal pools, wetlands, or streams are found on the site. The site does not contain drainage patterns that could support wetland resources.

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?

Less than significant impact with mitigation incorporated. Wildlife movement corridors are routes frequently utilized by wildlife that provide shelter and sufficient food supplies to support wildlife species during migration. Movement corridors generally consist of riparian, woodlands, or forested habitats that span contiguous acres of undisturbed habitat. Wildlife movement corridors are an important element of resident species home ranges, including deer and coyote.

The project site is not located within Butte County migratory deer corridors. No major migratory routes or corridors have been designated through the project site, and the existing developed components of the project area (i.e., roads, residential uses, fenced parcels) preclude use of the area as a migratory wildlife corridor for large mammals. However, the site may facilitate home range and dispersal movement of resident wildlife species, including birds, small mammals and other wildlife.

Nesting birds are protected under the MBTA (16 USC 703) and the CFGC (3503). Mitigation Measure ~~BIO-1~~ BIO-3, below will avoid significant impacts to nesting migratory birds. Any vegetation removal within the BSA should be conducted during the non-breeding season (September 1 - ~~February 28~~ January 31). If construction activities occur during the avian breeding season (~~March~~ February 1 – August 31) then a migratory bird and raptor survey will be conducted by a qualified biologist to identify any active nests (i.e. nests that contain eggs or hatchlings).

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

Less than significant impact. The project would not conflict with any local policies or ordinances protecting biological resources and is consistent with goals and policies identified in Butte County General Plan 2030.

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?

No impact. The Butte Regional Conservation Plan (BRCP) is a joint Habitat Conservation Plan (HCP)/National Community Conservation Plan (NCCP) that is currently being prepared for the western half of the Butte County. In the event the BRCP is adopted, individual projects and development that occur in the BRCP planning area would need to be coordinated with the Butte County Association of Governments to ensure that the project does not conflict with the BRCP. As the plan has not been adopted, the proposed project will not conflict, nor interfere with, the attainment of the goals of the proposed plan.

Mitigation Measures

Mitigation Measure BIO-1

Habitat Assessment. A qualified biologist with education and experience in bat biology and identification and approved by CDFW, shall conduct a habitat assessment for potentially suitable bat habitat within six months of Project activities. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey between March 1 and October 31. If bats are present anywhere within the Project site, then the qualified biologist shall submit a bat avoidance plan to CDFW for review and approval.

Bat Avoidance Plan. The bat avoidance plan should identify: 1) the location of the roosting sites; 2) the number of bats present at the time of assessment (count or estimate); 3) species of bats present; 4) the type of roost (e.g. day/night, maternity, hibernaculum, bachelor); 5) proposed Project related impacts to the roost; and 6) species specific measures to avoid and minimize impacts to bats including but not limited to the following:

- No Disturbance Buffer. No disturbance buffers to be established around occupied roosts in consultation with CDFW. The size of the buffer should be determined by the qualified bat biologist based on the bat species, specific site conditions, and level of disturbance. The buffer should be maintained until the qualified bat biologist determines that the roost is no longer occupied.
- Bat Exclusion. If a bat roost is found in a tree that must be removed, the qualified bat biologist shall prepare a Bat Exclusion Plan outlining the proposed passive exclusion of the bats from the roost. Exclusion shall be scheduled either (1) between March 1 and March 31, prior to parturition of pups and when nighttime lows are above 45°F; or (2) between September 1 and October 31, prior to hibernation, when nighttime lows are above 45°F. The qualified bat biologist shall confirm the absence of bats prior to the start of construction. The Bat Exclusion Plan shall be submitted to CDFW for review and approval a minimum of 10 days prior to the installation of exclusion devices. CDFW does not support eviction of bats during the maternity or hibernation periods.
- Replacement Roosts Structures. If bat roosts cannot be avoided, replacement roost structures (bat houses or other structures) shall be designed to accommodate the bat species displaced by Project activities and installed onsite. The placement of the constructed roosts shall be determined through consultation with CDFW. Ideally, the project would not be implemented unless and until replacement roost structures on site are documented to be acceptable and used by the bat species of interest.

Plan Requirements: conduct a habitat assessment for potentially suitable bat habitat. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey. If bats are present anywhere within the Project site, then the qualified biologist shall submit a bat avoidance plan to CDFW for review and approval. This measure shall be recorded on an additional map sheet to the Parcel Map.

Timing: Requirement to conduct a habitat assessment for potentially suitable bat habitat within six months of Project activities. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey between March 1 and October 31.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded an additional map sheet of the Parcel Map. Department of Development Services shall ensure the condition is met at the time of construction activities. If suitable bat habitat exists, California Department of Fish & Wildlife shall review and approve the bat avoidance plan.

Mitigation Measure BIO-2

The applicant/developer shall satisfy one of the following:

A. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime) an Oak Tree Mitigation Plan prepared by a certified arborist, registered professional forester, botanist or landscape architect shall be submitted for review and approval by the Director of Development Services or his/her designee that includes:

    1) A survey showing the location of oak trees 5 inches or more in diameter at breast height, as defined by PRC §21083.4(a);

    2) The removal of all oak trees 5 inches or more in diameter at breast height shall be mitigated. It shall be mitigated by one or more of the following: replanting and maintaining oak trees, establishing conservation easements, contributing funds for off-site oak woodlands conservation, and/or other mitigation measures developed by Butte County. Replanting oak trees cannot account for more than one-half of the mitigation. Replanted oak trees shall be maintained for a period of seven years after they are planted. If any of the replanted oak trees die or become diseased, they shall be replaced and maintained for seven years after the new oak trees are planted;

    3) A replanting schedule and diagram for trees removed or encroached upon by permit activities consistent with PRC §21083.4(b)(2), applicable mitigation measures, and Butte County Ordinance, if any, shall be submitted to and approved by the Director of Development Services or his/her designee. Replanted trees shall be planted in areas deemed appropriate by the Plan, considering future lot development, interference with foundations, fencing, roadways, driveways, and utilities. Trees planted shall be protected from livestock and other animals;

    4) Oak Tree protection measures for trees to be retained within the project site shall be included in construction specifications. Each oak tree to be preserved shall be surrounded by a tree zone identified by the drip line of the tree. An orange plastic fence or other suitable type of fence shall be used to identify the tree zone during construction activities. No vegetation removal, soil disturbance, or other development activities shall occur within the tree zone in order to protect root systems and minimize compaction of the soil, unless authorized by Oak Tree Mitigation Plan; and

    5) Conservation easements or funds for off-site oak woodlands conservation shall be proposed to and approved by the Director of Development Services or his/her designee.; or

B. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime) the developer shall be consistent with the County's adopted oak mitigation ordinance.; or

C. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or

approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime) the project shall be consistent with all avoidance and minimization measures and the applicant shall pay applicable in lieu fees to mitigate for blue oak woodland impacts as provided in the adopted Butte County Resource Conservation Plan.

Plan Requirements: No vegetation removal, grading, road construction, or other earthwork resulting in the removal or encroachment upon oak trees on the project site shall be permitted until the mitigation measure is satisfied by the applicant/developer completing one of the specified measures to the satisfaction of the Director of Development Services or his/her designee.

Timing: Requirements of the condition shall be satisfied prior to any development activity or the issuance of any grading, building, septic, or well permit, or the approval of any improvement plans on the parcels.

Monitoring: The Butte County Department of Development Services and Department of Public Works shall ensure that the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. At the time of septic, well, or building permit application, the Development Services Department will reference this requirement on any grading, building, septic, or well permit site plans and verify that actions necessary to verify this measure have been satisfied have been submitted to and approved by the Director of Development Services or his/her designee. Butte County building inspectors shall ensure compliance on-site.

Mitigation Measure BIO-~~1~~3

If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC) (approximately ~~March~~ February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. If an active nest is discovered outside of the typical nesting season, it shall be avoided using the same avoidance measures that would be applied during the typical nesting season. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.

Plan Requirements: Perform protocol-level surveys for migratory birds protected by the California Department Fish & Game Code and the Migratory Bird Treaty Act. This measure shall be recorded on an additional map sheet to the Parcel Map.

Timing: Requirements of the condition shall be adhered to prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between ~~March~~ February 1 and August 31). If an active nest is discovered outside of the typical nesting season, it shall be avoided using the same avoidance measures that would be applied during the typical nesting season.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded an additional map sheet of the Parcel Map. Department of Development Services shall ensure the condition is met at the time of construction activities.

1.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources.				
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Environmental Setting

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the "archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses" (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, subd. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Discussion

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

Less than significant impact with mitigation incorporated. The archaeological records search did not reveal the existence of any historic resources on the project site. ~~The majority of the site has been used and developed as a truck repair business and basecamp~~. To avoid potential impacts to undiscovered prehistoric resources, historic resources, and human remains that may be uncovered during development activities on the project site, Mitigation Measure CUL-1, below, is recommended.

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

Less than significant impact with mitigation incorporated. Based on the records review no archeological resources have been recorded on the project site or within the project area. The possibility exists that buried archaeological resources that may meet the criteria of a unique archaeological resource is present on the project site. If any buried resources are encountered and damaged during project implementation, the

destruction of the archaeological resources would be a potentially significant impact. Implementation of Mitigation Measure CUL-1 would reduce this impact to a less-than-significant level.

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

Less than significant impact with mitigation incorporated. Indications are that humans have occupied Butte County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities, regardless of depth, may yield human remains that may not be interred in marked, formal burials.

Under CEQA, human remains are protected under the definition of archaeological materials as being "any evidence of human activity." Additionally, *Public Resources Code section 5097.98* has specific stop-work and notification procedures to follow in the event that human remains are inadvertently discovered during project implementation.

The Butte County Conservation Element has established two policies that address the inadvertent discovery of human remains. COS-P16.3 requires human remains discovered during construction to be treated with dignity and respect and to fully comply with the federal Native American Graves Protection and Repatriation Act and other appropriate laws. COS-P16.4 requires work to stop if human remains are found during construction until the County Coroner has been contacted, and, if the human remains are determined to be of Native American origin, the North American Heritage Commission and most likely descendant have been consulted.

Implementation of the Mitigation Measure CUL-1 would ensure that all construction activities that inadvertently discover human remains implements state required consultation methods to determine the disposition and historical significance of any discovered human remains. Mitigation Measure CUL-1 would reduce this impact to a less than significant level.

Mitigation Measures

Mitigation Measure CUL-1

Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all subdivision improvements, including land clearing, road construction, utility installation, and building site development."

Plan Requirements: This note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet and shall be shown on all site development and building plans.

Timing: This measure shall be implemented during all site preparation and construction activities.

Monitoring: The Department of Development Services and/or Public Works Department shall ensure the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Should cultural resources be discovered, the landowner shall notify the Planning Division and a professional archaeologist. The Planning Division shall coordinate with the developer and appropriate authorities to avoid damage to cultural resources and determine appropriate action. State law requires the reporting of any human remains.

1.6 ENERGY

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

Discussion

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

Less than significant impact. The proposed project would consume energy primarily in two ways: (1) construction activities would consume energy through the operation of heavy off-road equipment, trucks, and worker traffic, and (2) future residential uses would cause long-term energy consumption from electricity and propane gas consumption, energy used for water conveyance, and vehicle operations to and from the project site.

Construction energy consumption would largely occur from fuel consumption by heavy equipment during grading activities associated with road and building site clearance; trucks transporting construction materials to the site during parcel development; and, worker trips to and from the job site. Energy consumption during construction related activities would vary substantially depending on the level of activities, length of the construction period, specific construction operations, types of equipment, and the number of personnel. Despite this variability in the construction activities, the overall scope of the anticipated construction at the project site is relatively minor, and would be complete within a few weeks, and therefore, would not require a substantial amount of fuel to complete construction. Additionally, increasingly stringent state and federal regulations on engine efficiency combined with local, state, and federal regulations limiting engine idling times and recycling of construction debris, would further reduce the amount of transportation fuel demand during project construction. Considering the minimal amount of construction activities associated with the project, the proposed project would not result in the wasteful and inefficient use of energy resources during construction and impacts would be less than significant.

Long-term energy consumption would occur after residential build-out of the resultant parcels. Residential uses would consume electricity and/or propane gas for space heating, water heating, and cooking. Whereas, electricity would primarily be used for lighting, appliances, water conveyance and other activities within the home. The project would also generate additional vehicle trips by residents commuting to and from work or to access services, which would result in the consumption of transportation fuel.

State and federal regulatory requirements addressing fuel efficiency are expected to increase fuel efficiency over time as older, less fuel-efficient vehicles are retired, and therefore would reduce vehicle fuel energy consumption rates over time. Therefore, energy impacts related to fuel consumption/efficiency during project operations would be less than significant.

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

Less than significant impact. Many of the state and federal regulations regarding energy efficiency are focused on increasing building efficiency and renewable energy generation, as well as reducing water consumption and Vehicles Miles Traveled. The proposed project includes energy conservation measures to meet and exceed the regulatory requirements, including reducing idling time of heavy equipment during construction activities (see Mitigation Measure AIR-1 and GHG-1) and the addition of exterior outlets in residential buildings for recharging electric cars and other household equipment. Additionally, future residential uses on the resultant parcels would also be in compliance with the most recent Title 24 and CalGreen building code standards at the time of project construction. Therefore, the proposed project would implement energy reduction design features and comply with the most recent energy building standards and would not result in wasteful or inefficient use of nonrenewable energy sources.

1.7 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Geology and Soils.				
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

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

Less than significant impact. There are no known active faults underlying, or adjacent to, the project site. The Cleveland Hill fault is the only active fault zone in Butte County identified in the most recent Alquist-Priolo Earthquake Fault Zoning Map. The Cleveland Hill fault is located east of Dunstone Drive and Miners Ranch Road, between North Honcut Creek and Mt. Ida Road, approximately 20.6± miles southeast of the project site. Because the nearest active fault is located a considerable distance from the project site, the likelihood of a surface rupture at the project site is very low, and would not be a design consideration for future development.

ii) Strong seismic ground shaking?

Less than significant impact. Ground shaking at the project site could occur due to the earthquake potential of the regions active faults. However, active faults are relatively distant from the project site, and would result in low to moderate intensity ground shaking during seismic events. Future residential development on the resultant parcels would be subject to the California Building Code (CBC). The CBC would provide minimum standards to safeguard life or limb, health, property and public welfare by regulating the design, construction, quality of materials, use and occupancy, location, and maintenance of buildings and structures within Butte County. Adherence to the CBC during building construction would ensure that potential impacts are less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less than significant impact. According to Butte County General Plan 2030, areas that are at risk for liquefaction can be found on the valley floor, especially near the Sacramento and Feather Rivers, and their tributaries, which have a higher potential to contain sandy and silty soils. The California Building Code (CBC) regulates the construction of structures, which may be constructed with approval of the proposed project. Adherence to CBC standards at the time of development of the resultant parcels would ensure that new structures are adequately sited and engineered to reduce impacts related to seismic ground failure, including liquefaction, are less than significant.

iv) Landslides?

Less than significant impact. The project area is primarily level with 0-2% slopes. As a result, the landslide potential for the project site and surrounding area is low. According to Figure HS-6, Landside Potential, of Butte County General Plan 2030, the project site has a low to no potential of landslides, shallow slope failures can occur in virtually any sloping terrain during construction activities. Avoidance of potentially sensitive slopes and/or implementation of appropriate engineering and construction measures at the time of development would avoid or reduce potential impacts of landslides to a less than significant level.

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

Less than significant impact. According to Figure 4.6-4 of Butte County General Plan 2030, the project site has a slight potential of soil erosion. Nevertheless, surface soil erosion and loss of topsoil has the potential to occur

in any area of the county from disturbances associated with the construction-related activities. Construction activities could also result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at the construction site and staging areas.

During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation.

Additionally, future construction activities may be subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Storm Water permit program if one acre or more of land is disturbed. Construction activities that result in a land disturbance of less than one acre, but which are part of a larger common plan of development, also require a permit. This program requires implementation of erosion control measures during and immediately after construction that are designed to avoid significant erosion during the construction period. In addition, the project operation would be subject to State Water Resources Control Board requirements for the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to control pollution in stormwater runoff from the project site, including excessive erosion and sedimentation. The SWPPP, if required, must be obtained prior to any soil disturbance activities. Implementation of standard erosion control BMP's during future construction-related activities, together with adherence to State requirements regarding grading activities, would ensure that potential erosion impacts are less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than significant impact. According to Butte County General Plan 2030, the project site is not located in an area prone to landslides, subsidence or liquefaction. However, destabilization of natural or constructed slopes could occur as a result of future construction activities. Excavations, grading, and fill operations associated with parcel development could alter existing slope profiles making them unstable as a result of over-excavation of slope material, steepening of the slope, or increased loading. Standard engineering design features and construction procedures would be implemented to maintain stable slopes and excavations during construction, reducing impacts of unstable slopes to a less than significant level.

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

Less than significant impact. According to Figure 4.6-3 of Butte County General Plan 2030, the project site is located in an area with a low to very low potential to have expansive soils. Expansive soils can cause structural damage particularly when concrete structures are in direct contact with the soils. Appropriate design features to address expansive soils may include excavation of potentially problematic soils during construction and replacement with engineered backfill, ground-treatment processes, direction of surface water and drainage away from foundation soils, and the use of deep foundations such as piers or piles. Implementation of these standard engineering methods and adherence to California Building Code (CBC) standards at the time of development of the resultant parcels would ensure that any impacts associated with expansive soils would remain less than significant.

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

Less than significant impact. Wastewater disposal on the project site would be handled by new, individual, on-site septic systems. General Plan 2030 includes a number of policies in the Water Resources Element and the

Public Facilities Services Element both to address existing septic systems in areas with poor soils and to ensure the safety of future septic systems. To ensure the safety of new septic systems, Policy PUB-P13.2 requires new development to demonstrate the availability of a safe, sanitary, and environmentally sound wastewater system. Similarly, Policy PUB-P13.3 requires applicants of projects that will rely on on-site wastewater systems to provide detailed plans demonstrating that the system will be adequate to serve the project (Butte County General Plan 2030 EIR).

The applicant completed a pre-application review with Butte County Department of Environmental Health, in accordance with Chapter 19 of Butte County Code (On-Site Wastewater Systems). Soil profiles and percolation testing were conducted by a certified designer Jan Hill with staff from this office present during the site evaluation. Soils were evaluated in the areas proposed for leach field and replacement. In summary, the soil profile holes indicated soil class to be silty clay loam down to 60 inches with a 0.3 gallons per day application rate. Using the combination of soils classification along with the designer's suggestion, it is agreed Jan Hill's Consulting's findings that, per BCC Chapter 19-10 C., the Minimal Usable Wastewater Area (MUWA) of 15,000 square feet of pressure distribution has been met for parcels 2. Water sample results for the existing were provided with levels of 5.45 approximately half of the MCL.

As part of the review, an initial septic area on the resultant parcels were evaluated and determined to have adequate soil conditions to allow for future development of an on-site wastewater system. Future development requiring wastewater disposal is required to receive an On-Site Wastewater System Construction Permit from Environmental Health. Application for a Construction Permit will include detailed plans of the proposed wastewater system, prepared by a Certified Installer or Certified Designer, which will demonstrate compliance with County regulations and the County's On-Site Wastewater Manual, and to ensure a safe, sanitary, and environmentally sound wastewater system.

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

Less than significant impact.

~~The project is classified as a Pleistocene-age Riverbank Formation that overlies the Red Bluff formation. The Riverbank Formation consists of weathered gravel, sand, and silt that were deposited between 0.13 and 0.45 million years ago. The thickness of the Riverbank Formation ranges from less than 1 foot to more than 200 feet. The Riverbank Formation is composed of a lower and upper terraces, which were formed by stream carry eroded materials from the surrounding mountain ranges to the base of the foothills, where they were deposited in wide alluvial fans and terrace deposits. The lower terrace consists of red semi-consolidated gravel, sand and silt. The upper terrace consists of unconsolidated but compact, dark-brown to red alluvium containing gravel, sand, silt, and with minor clay. Groundwater generally occurs under unconfined conditions (Geology of the Northern California Sacramento Valley, 2014).~~

Sediments associated with the Riverbank Formation are typically devoid of significant vertebrate fossils, and no previously recorded fossil sites has been identified on the project site or the surrounding area. Therefore, it is not likely that unique paleontological resources would be found in local sediments. Further, the discovery of fossils, and the subsequent opportunity for data collection and study, is a rare event that could occur from construction grading activities associated with development. As a result, the probability of encountering fossils on the project site is low. Implementation of Mitigation Measure CUL-1 would further reduce potential impacts to any possible undiscovered paleontological resources during ground-disturbance activities to less than significant. ~~, and would have a less than significant impact on previously unknown paleontological resources.~~

1.8 GREENHOUSE GAS EMISSIONS

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

Environmental Setting

Butte County updated Climate Action Plan (CAP) was adopted on December 14, 2021. The 2021 Climate Action Plan (CAP) is Butte County's strategic plan to reduce greenhouse gas (GHG) emissions in the unincorporated county. The 2021 CAP allows Butte County (County) decision makers, staff, and the community to understand the sources and magnitude of local GHG emissions, reduce GHG emissions, and prioritize steps to achieve reduction targets.

The 2021 CAP is an update of the 2014 CAP, providing updated information, an expanded set of GHG reduction strategies, and a planning horizon out to 2050. The 2021 CAP contains an inventory of the community's GHG emissions from the agriculture, transportation, energy, solid waste, off-road equipment, water and wastewater, and stationary source sectors. The 2021 CAP also includes informational GHG emissions from the land use and sequestration sector and the wildfire and controlled burn sector. The 2021 CAP also presents a work plan and monitoring program for the County to track progress over time.

The Butte County CAP provides goals, policies, and programs to reduce GHG emissions, address climate change adaptation, and improve quality of life in the county. The Butte County CAP also supports statewide GHG emission-reduction goals. Programs and actions in the CAP are intended to help the County sustain its natural resources, grow efficiently, ensure long-term resiliency to a changing environmental and economic climate, and improve transportation. The Butte County CAP also serves as a Qualified GHG Reduction Strategy under CEQA, simplifying development review for new projects that are consistent with the CAP.

The County's goal is to reduce GHG emissions from energy, transportation, water, solid waste, and agricultural sources in the unincorporated county 40 percent below 1990 equivalent levels by 2030 and continue to reduce emissions toward carbon neutrality, reducing emissions to at least 80 percent below 2006 levels by 2050.

A 2006 baseline GHG emission inventory was prepared for unincorporated Butte County. The inventory identified the sources and the amount of GHG emissions produced in the county. The leading contributors of GHG emissions in Butte County are agriculture (43%), transportation (29%), and residential energy (17%). The Climate Action Plan (CAP) adopted by the County provides a framework for the County to reduce GHG emissions while simplifying the review process for new development. Measures and actions identified in the CAP lay the groundwork to achieve the adopted General Plan goals related to climate change, including reducing GHG emissions to 1990 levels by 2030.

New projects are evaluated to determine consistency with the CAP and to identify which GHG emission reduction measures would be implemented with project approval. These measures may include expansion of renewable energy systems for new residential development by prewiring future development for photovoltaic systems; reduction of construction equipment idling time; and, installation of electric vehicle charging outlets in the garage or the exterior of the home.

Discussion

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

Less Than Significant Impact. The project is a minor land division that would contribute greenhouse gas emissions during parcel development, and by the subsequent uses on the resultant parcels. Construction-related emissions during parcel development may be generated from construction equipment exhaust, construction employee vehicle trips to and from the work site, architectural coatings and asphalt paving. The project's construction GHG emissions would occur over a short duration and would consist primarily of emissions from equipment exhaust. The long-term regional emissions associated with the project would primarily occur from the creation of new vehicular trips and indirect source emissions, such as electricity usage for lighting.

The proposed project would be required to implement Mitigation Measure GHG-1, which reduces project emissions of heavy-duty diesel-powered equipment during construction and long-term GHG emissions associated with future uses on the resultant parcels. Implementation of this measure would minimize project-related GHG emissions to the extent feasible, consistent with AB 32 GHG reduction goals, and would therefore result in a less than significant impact.

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

Less Than Significant Impact with Mitigation Incorporated. The project is subject to compliance with 2021 Butte County CAP's greenhouse gas emission forecast goals for 2030, 2040 and 2050, which are to reduce statewide GHG emissions to 1990 levels. Additionally, development on the resultant parcels would be subject to Title 24, California Building Code, which includes CalGreen standards. These standards include mandatory measures that addresses planning and design, energy efficiency, water efficiency/conservation, material conservation and resource efficiency, and environmental quality. Implementation of Mitigation Measure GHG-1 would mitigated project-generated GHG emissions through programmatic-level measures established through the Butte County CAP. The project's compliance with the applicable policies and measures in the CAP would in turn meet the statewide GHG emission reduction goals.

Mitigation Measures

Mitigation Measure GHG-1

Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "To the extent feasible, the project proponent shall implement the following measures during construction-related activities and at the time of development to offset the anticipated contribution of greenhouse gas emissions:

- Support expansion of renewable energy systems
  - Prewire all new residential development to support photovoltaic system installation.
- Support efficiency in vehicles and landscaping equipment
  - Install electrical vehicle outlets on external walls or in garages in all new residential development.
- Improve fuel efficiency of equipment during construction-related activities
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minute.
  - Use clean or alternative fuel equipment."

Plan Requirements: The measure shall be placed on an additional map sheet which is to be recorded with the Parcel Map. This note shall also be placed on all building and site development plans.

Timing: Shall be implemented prior to issuance of building permits for residential development. Construction-related measures shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the measure is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. The Planning Division will ensure that future residential development includes the applicable measures during Building Permit review. Building inspectors shall spot check and shall ensure compliance on-site.

1.9 HAZARDS AND HAZARDOUS MATERIALS

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

Discussion

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

Less than significant impact. Limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, etc. would be used to maintain vehicles and motorized equipment during construction-related activities. Accidental spill of any of these substances could impact water and/or groundwater quality. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to construction workers, the public, as well as the environment. Construction personal who are experienced in containing accidental releases of hazardous

materials will be present to contain and treat affected areas in the event a spill occurs. If a larger spill were to occur, construction personal would generally be on-hand to contact the appropriate agencies.

It is not anticipated that large quantities of hazardous materials would be permanently stored or used within the project site. However, if large quantities are stored at the project site, the owner would be required to obtain a Hazardous Materials Business Plan. It is more likely that only small quantities of publicly-available hazardous materials (e.g., paint, maintenance supplies) may be routinely used within the project site for residential or agricultural maintenance and cleaning. However, these materials would not be used in sufficient strength or quantity to create a substantial risk of fire or explosion, or otherwise pose a substantial risk to human or environmental health.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?

Less than significant impact. It's not anticipated that construction or operation of future residential development or agricultural uses would create a significant hazard to the environment or to the public due to the accidental release of hazardous materials into the environment. Accidental release of hazardous materials routinely used during construction activities are addressed in section a.), above.

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

No impact. No existing or proposed schools have been identified within one-quarter mile of the project site. The nearest schools are located approximately 0.7 miles to the west.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No impact. A review of regulatory agency databases, which included lists of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, did not identify a contamination site within, or in the vicinity of, the project site. The nearest sites are located 3.2 miles east (Chico Scrap Metal – South) and 3.8 miles to the southwest PM Dusters, Incorporated).

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

No impact. No public use airports have been identified to be located within the vicinity of the project site. Chico Airport is located approximately 10.6 miles north from the project site. The proposed project is located outside the compatibility zones for the area airports, and therefore, would not result in a safety hazard to people working and residing on the project site.

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

No impact. The proposed project would design, construct, and maintain roadways in accordance with applicable standards associated with vehicular access, resulting in the roadways that provide for adequate emergency access and evacuation. The project does not include any actions that physically interfere with any emergency response or emergency evacuation plans. Development of the resultant parcels would add a small amount of trips onto the area roadways; however, area roadways and intersections would continue to operate

at an acceptable level of service. Future construction activities would be limited to private roads adjacent to the project site. No road improvements within a County right-of-way is anticipated.

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

Less than significant impact. The project site is not located in a Fire Hazard Severity Zone or in a State Responsibility Area. It is in a Local Responsibility Area. Subsequent development on the resultant parcels is not expected to expose structures or residents on the project site to a significant wildland fire risk. As an added protection, Butte County Fire Department/CalFire requires construction of an all-weather access road at the time of development. The road will be at least 10 feet wide with a vertical clearance of 15 feet to allow for ingress and egress of a 40,000-pound fire apparatus to within 150 feet of all structures on the resultant parcels.

1.10 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hydrology and Water Quality.				
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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 on- or offsite erosion or siltation;	☐	☐	☒	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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; or	☐	☐	☒	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

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

Less than significant impact. Butte County General Plan 2030 identifies the soil conditions of the project site has a slight potential to erode. Though the potential for erosion is low, site development and future build-out of the resultant parcels would require grading, excavation and general site preparation activities, which could result in erosion of on-site soils and sedimentation during storm or high wind events. Erosion of on-site soils may temporarily impact surface water quality and water quality within nearby waterways. Downstream impacts from erosion may include increased turbidity and suspended sediment concentrations in waterways. Eroded

soils also contains nitrogen, phosphorous and other nutrients, that when deposited in water bodies, can trigger algal blooms that reduce water clarity, deplete oxygen, and create odors.

During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site by construction personnel. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation.

Future construction activities may be subject to the National Pollutant Discharge Elimination System (NPDES) General Construction Activities Storm Water permit program if one acre or more of land is disturbed. Construction activities that result in a land disturbance of less than one acre, but which are part of a larger common plan of development, may also require a permit issued by the California Regional Water Quality Control Board. This program requires implementation of erosion control measures during and immediately after construction that are designed to avoid significant erosion during the construction period. Project operations that are under a NPDES permit would also be subject to the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to control pollution in stormwater runoff from the project site. A condition of approval reflecting the requirement of the applicant to obtain a NPDES permit, prior to grading activities, will be included with project approval.

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

Less than significant impact. Domestic water to existing and planned uses on the resultant parcels would be provided by groundwater extraction via individual wells, unless the extension of DID water line has been extended to the project parcel, prior to development. Section 12.0 of the *Butte County Improvement Standards* outline the requirements of water supplies for proposed parcel maps. Proposed subdivisions located outside an urban area and more than a 1,000 feet from an existing public water system, may have its domestic water supplied by individual wells. The project is within DID Sphere of Influence and will be required to install a DID water main along its parcel frontage on Durham-Dayton Highway and extend a waterline to serve the proposed parcels once DID's water main extends east to the project parcel. The quantity and quality of the groundwater for the proposed development is reviewed by the Butte County Environmental Health Division by either a test well, a review of existing wells in the area, or a statement from a licensed well driller together with a report by an engineering geologist or hydrologist verifying that minimum well production for domestic purposes are achieved. Additionally, a well permit is required by the County to ensure well drilling standards are achieved and health and safety standards are met. Well production from new wells would be tested to determine if sufficient output it available for the anticipated uses to occur on the resultant parcels. Based on these reviews, existing groundwater supplies are anticipated to be available to the serve the proposed project, and no additional or expanded entitlements are required for groundwater extraction and use.

General Plan 2030 and the associated Environmental Impact Report included several actions and policies to address groundwater supplies and sustain groundwater resources. Butte County also has adopted the Butte County Integrated Water Resources Plan and Butte County Groundwater Management Plan, and has performed an analysis of long-term water usage and supplies with the 2001 Butte County Water Inventory and Analysis. The findings contained in these reports, together with the application of these existing policies and plans, led Butte County to conclude that the growth anticipated with General Plan 2030 would have a less than significant impact to groundwater supplies.

The proposed project would have a minimal net increase in impervious surfaces added to the project site from the development of new residences or other structures such as from concrete foundations and access road surfacing. The projected increase would not cause a measureable reduction in surface infiltration or a decrease in deep percolation to the underlying aquifers because density of the development would continue to provide open areas to allow for runoff infiltration.

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 on- or offsite erosion or siltation;

Less than significant impact. Vegetation removal and soil disturbance would occur during clearing of building sites and for the access road. During construction-related activities, specific erosion control and surface water protection methods for each construction activity would be implemented on the project site by construction personnel. The type and number of measures implemented would be based upon location-specific attributes (i.e., slope, soil type, weather conditions). These control and protection measures, or BMPs, are standard in the construction industry and are commonly used to minimize soil erosion and water quality degradation. Application of BMPs administrated through the construction process would minimize the potential increase of surface runoff from erosion.

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

Less than significant impact. The increase in impervious surface area from build-out of the resultant parcels are not anticipated to be enough to alter existing drainage patterns or cause offsite flooding. While an increase in stormwater runoff may be expected due to the reduced absorption rate created from new impervious surfaces added to the site, such as from structures, driveways, and hardscape (walkways, patios), future development would be reviewed by the Butte County Public Works Department to ensure any potential drainage concerns are addressed, and to ensure no net increase in stormwater runoff leaves the project site.

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; or

Less than significant impact. Planned stormwater drainage systems in the project area currently consists of a system of roadside ditches and culverts that capture surface runoff, which ultimately infiltrate into the underground aquifer or conveyed to area waterways.

General Plan 2030 Water Resource Element contains a number of policies that address stormwater runoff capacity. Policy W-P1.4 encourages Low Impact Development, which minimizes impervious areas, minimizes runoff and pollution, and incorporates best management practices. Policy W-P5.3 allows and encourages pervious pavements. Policy W-P5.5 requires that stormwater collection systems be installed concurrently with construction of new roadways to maximize efficiency and minimize disturbance due to construction activity. Policy HS-P3.2 requires that applicants for new development provide plans detailing existing drainage conditions and specifying how runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility, without increasing the peak flow runoff to said channel or facility. Policy HS-P3.3 requires that all development include stormwater control measures and site design features that prevent any increase in the peak flow runoff to existing drainage facilities.

The proposed project would generate a minor increase in runoff from the future development of the resultant parcels. Improvements are relatively small and conveyed through a system of existing roadside ditches and culverts to area waterways. The minor increase runoff would not exceed the capacity of the existing stormwater drainage systems or substantially increase polluted runoff.

iv) Impede or redirect flood flows?

Less than significant impact. The floodplain mapping of the project area identifies the project site being located within the AO zone. The AO zone is defined by FEMA as areas of I-percent shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Future site improvements would be reviewed by Butte County Public Works to ensure that surface flows would be adequately directed to planned and existing stormwater drainage facilities.

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

Less than significant impact. The floodplain mapping of the project area identifies the project site being located within the AO zone. Future site improvements would be reviewed by Butte County Building Division to make sure any future structures meet flood requirements.

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

No impact. The project site is located within the Vina subbasin of the Sacramento Valley groundwater basin bounded on the north at the Tehama County line, to the west by the Sacramento River, to the south at the border of Western Canal Water District, and to the east by the edge of the alluvial basin as defined by Bulletin 118. The Groundwater Sustainability Agencies in the Vina subbasin include Butte County, the City of Chico, Durham Irrigation District and Rock Creek Reclamation District. Butte County, The City of Chico and Durham Irrigation District are in the process of entering into a Joint Powers Agreement in order to create a Groundwater Sustainability Agency in order to implement the requirements of the Sustainable Groundwater Management Act including adoption of a basin management plan. As a basin management plan has not been adopted for the Vina subbasin, the proposed project will not conflict, nor interfere with, the attainment of the goals of the proposed plan.

1.11 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Land Use and Planning.				
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
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?	☐	☐	☒	☐

Environmental Setting

Butte County General Plan

The General Plan represents the community's values, ideals and aspirations with respect to land use, development, transportation, public services, and conservation policy that will govern Butte County through 2030. The Land Use Element of the General Plan designates the land use of areas within the County, and includes a description of the characteristics and intensity of each land use category. The land use designation for the proposed project site is as follows:

Very Low Density Residential

This designation allows single-family dwellings at densities up to 1 dwelling unit per acre.

Butte County Zoning Ordinance

The Zoning Ordinance implements the goals and policies of the Butte County General Plan by regulating the uses of land and structures within the County. The zoning designation of the proposed project site and the intended uses of the site are as follows:

Very Low Density Residential (VLDR)

The purpose of the VLDR zone is to allow for single-family homes and related uses in residential neighborhoods within the county. Standards for the VLDR zone are intended to preserve and protect the character of existing neighborhoods and to ensure that new residential neighborhoods provide an appropriate transition from rural to more developed areas. Permitted residential uses in the VLDR zones include single-family homes, small residential care homes, second units and accessory dwelling units, animal grazing, on-site agricultural product sales, and private stables. The VLDR zone also conditionally permits non-residential uses compatible with a residential setting, including public and quasi-public uses, golf courses, park and recreational facilities, personal services, animal-keeping, large residential care homes, and medical offices and clinics. The minimum permitted parcel size in the VLDR zone is 1 acre. The VLDR zone implements the Very Low Density Residential land use designation in the General Plan.

Discussion

a) Physically divide an established community?

Less than significant impact. The project area is located in rural Butte County and surrounded by residential and agricultural operations on parcel sizes that range from 0.2 acres to 49.4 acres. The project site is located in Durham, approximately 0.6 miles from downtown Durham area. The project area is a mix of parcel sizes and

include residential parcels, residential parcels with agricultural uses and agricultural uses. The project would not divide the project area or the Durham area with an incompatibly use.

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?

Less than significant impact. The proposed project including future uses on the resultant parcels are consistent with density and uses permitted under the General Plan land use and zoning designations for the project site and, as detailed throughout this Initial Study, the General Plan's applicable goals, policies and actions. In addition, all impacts to the environment resulting from the proposed project are subject to applicable mitigation and local, State and/or federal regulations, which would reduce those impacts to less than significant levels. Therefore, impacts related to conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to General Plan 2030, specific plan, Airport Land Use Compatibility Plan or County ordinances) adopted for the purpose of avoiding or mitigating an environmental effect are less than significant.

1.12 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Mineral Resources.				
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Discussion

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?

Less than significant impact. There are no known economically viable sources of rock materials in the immediate vicinity of the project site. No mining operations have occurred on the project site or surrounding area, and the project would not preclude future extraction of available mineral resources. Mineral resource extraction is not proposed with this project. However, future development on the resultant parcels would use mineral resources in the construction of structures and access roads. The amount of resources used for development on the resultant parcels are minor and would not result in the loss of its availability.

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?

No impact. The project site is not within or near any designated locally-important mineral resource recovery site.

1.13 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII.Noise.				
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Environmental Setting

According to the Butte County General Plan 2030, noise is a concern throughout Butte County, but especially in rural areas and in the vicinity of noise-sensitive uses such as residences, schools, and churches. Noise is discussed in the Health and Safety Chapter of the Butte County General Plan 2030. Tables HS-2 and HS-3 in the County General Plan (included as Tables 1.13-1 and 1.13-2 below) outline the maximum allowable noise levels at sensitive receptor land uses.

Table 1.13-1. Maximum Allowable Noise Exposure Transportation Noise Sources

	Exterior Noise Level Standard for Outdoor Activity Areas[a]		Interior Noise Level Standard	
LAND USE	L_{dn}/CNEL, dB	L_{eq}, dBA[b]	L_{dn}/CNEL, dB	L_{eq}, dBA[b]
Residential	60[c]	-	45	-
Transient Lodging	60[c]	-	45	-
Hospitals, nursing homes	60[c]	-	45	-
Theaters, auditoriums, music halls	-	-	-	35
Churches, meeting halls	60[c]	-	-	40
Office Buildings	-	-	-	45
Schools, libraries, museums	-	70	-	45
Playgrounds, neighborhood parks	-	70	-	-

Source: Table HS-2, Butte County General Plan 2030

[a] Where the location of outdoor activity areas is unknown, the exterior noise-level standard shall be applied to the property line of the receiving land use.

[b] As determined for a typical worst-case hour during periods of use.

[c] Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 1.13-2. Maximum Allowable Noise Exposure Non-Transportation Noise Sources

	Daytime 7 am - 7 pm		Evening 7 pm - 10 pm		Night 10 pm - 7 am	
NOISE LEVEL DESCRIPTION	Urban	Non-Urban	Urban	Non-Urban	Urban	Non-Urban
Hourly Leq (dB)	55	50	50	45	45	40
Maximum Level (dB)	70	60	60	55	55	50

Source: Table HS-3, Butte County General Plan 2030

Notes:

1. "Non-Urban designations" are Agriculture, Timber Mountain, Resource Conservation, Foothill Residential and Rural Residential. All other designations are considered "urban designations" for the purposes of regulating noise exposure.

2. Each of the noise levels specified above shall be lowered by 5 dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g. caretaker dwellings).

3. The County can impose noise level standards which are up to 5 dB less than those specified above based upon determination of existing low ambient noise levels in the vicinity of the project site.

4. In urban areas, the exterior noise level standard shall be applied to the property line of the receiving property. In rural areas, the exterior noise level standard shall be applied at a point 100 feet away from the residence. The above standards shall be measured only on property containing a noise sensitive land use. This measurement standard may be amended to provide for measurement at the boundary of a recorded noise easement between all affected property owners and approved by the County.

Table 1.13.1, above, identifies the maximum allowable noise exposure to a variety of land uses from transportation sources, including from roadways, rail and airports. Table 1.13-2 identifies the maximum allowable noise exposure from non-transportation sources. In the case of transportation noise sources, exterior noise level standards for residential outdoor activity areas are 60 dB (Ldn/CNEL). However, where it is not possible to reduce noise in an outdoor activity area to 60 dB Ldn /CNEL or less using a practical application of the best-available noise-reduction measures, an exterior noise level of up to 65 dB may be allowed, provided that available exterior noise-level reduction measures have been implemented and interior noise levels are in compliance with applicable standards.

Butte County Noise Ordinance

Chapter 41A, Noise Control, of the Butte County Code of Ordinance applies to the regulation of noise. The purpose of the noise ordinance is to protect the public welfare by limiting unnecessary, excessive, and unreasonable noise. Section 41A-7 specifies the exterior noise limits that apply to land use zones within the County, which are provided in Table 1.13-2.

The Butte County Noise Ordinance provides the County with a means of assessing complaints of alleged noise violations and to address noise level violations from stationary sources. The ordinance includes a list of activities that are exempt from the provisions of the ordinance; however, some noise-generating activities associated with future residential uses would not be considered to be exempt from the Noise Ordinance. Relevant information related to the exterior and interior noise limits set out by the Butte County Noise Ordinance are included below.

Chapter 41A-9 Exemptions

The following are exempted activities identified in Chapter 41A-9 that are applicable to the proposed project:

(f) Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property or public works project located within one thousand (1,000) feet of residential uses, provided said activities do not take place between the following hours:

- Sunset to sunrise on weekdays and non-holidays;
- Friday commencing at 6:00 p.m. through and including 8:00 a.m. on Saturday, as well as not before 8:00 a.m. on holidays;
- Saturday commencing at 6:00 p.m. through and including 10:00 a.m. on Sunday; and,
- Sunday after the hour of 6:00 p.m.

Provided, however, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in process be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work into the hours delineated above and to operate machinery and equipment necessary to complete the specific work in progress until that specific work can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;

(g) Noise sources associated with agricultural and timber management operations in zones permitting agricultural and timber management uses;

(h) All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of adverse weather conditions or when the use of mobile noise sources is necessary for pest control;

(i) Noise sources associated with maintenance of residential area property, provided said activities take place between 7:00 a.m. to sunset on any day except Saturday, Sunday, or a holiday, or between the hours of 9:00 a.m. and 5:00 p.m. on Saturday, Sunday, or a holiday; and, provided machinery is fitted with correctly functioning sound suppression equipment;

Chapter 41A-8 Butte County Interior Noise Standards

Interior noise standards discussed in Chapter 41A apply to all noise sensitive interior area within Butte County. The maximum allowable interior noise level standards for residential uses is 45 dB Ldn/CNEL, which is designed for sleep and speech protection. The typical structural attenuation of a residence from an exterior noise is 15 dBA when windows facing the noise source is open. When windows in good condition are closed, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling.

Table 1.13-3. Maximum Allowable Interior Noise Standards

NOISE LEVEL DESCRIPTION	Daytime 7 am - 7 pm	Evening 7 pm - 10 pm	Nighttime 10 pm - 7 am
Hourly L_{eq} (dB)	45	40	35
Maximum Level (dB)	60	55	50
Source: Butte County Code Chapter 41A-8, Interior Noise Standards			

Discussion

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 in other applicable local, state, or federal standards?

Less than significant impact. The primary noise generating sources near the project site are vehicle traffic on Durham-Dayton Highway, Union Pacific Railroad and agricultural operations. Union Pacific Railroad is located over ½ mile to the west of the project site. According to the Noise Contour Map for Existing Conditions in Appendix C of the Butte County General Plan, the project site is located outside the 60 DB Ldn for the railroad noise. Typical noises contributed by residential and agricultural uses include landscaping equipment, automobile traffic, power tools, domestic animals, farm machinery, heating and cooling systems. The noises generated by these activities are not atypical or unusual for residential and agricultural-zoned properties in the project area. These noises also would be intermittent and separated from noise sensitive receptors, and would unlikely exceed County standards. In the event noise levels exceed applicable noise standards, the County will review complaints in accordance with Butte County Code Chapter 41A.

Noise levels contributed by the proposed project would include construction noise during future build-out of the resultant parcels, occupancy of the single-family residences, and from agricultural-related activities allowed in the zone. Construction noises associated with development of the resultant parcel would primarily be from the use of heavy equipment, generators, employee vehicle trips and power tools. Construction-related noises would be temporary and intermittent, and would not result in long-term noise impacts. Compliance with Butte County Code provisions that exempt construction noise would ensure construction activities occur during daytime hours, making potential impacts less than significant.

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

Less than significant impact. The proposed project may involve temporary sources of groundborne vibration and groundborne noise from the operation of heavy equipment during build-out of the proposed project and resultant parcels. The type of heavy equipment typically used during residential construction would only generate localized groundborne vibration and groundborne noise that could be perceptible at residences or other sensitive uses in the immediate vicinity of the construction site. However, since the duration of impact would be infrequent and would occur during less sensitive daytime hours (i.e., between 7:00 a.m. and 7:00 p.m.), the impact from construction-related groundborne vibration and groundborne noise 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?

No impact. No public use airports have been identified to be located within the vicinity of the project site. Chico Airport is located approximately 10.6 miles north from the project site. The proposed project is located outside the compatibility zones for the area airports, and therefore, would be outside the 60 dBA CNEL noise contour for the airport. The proposed project would not expose people residing or working in the project area to excessive noise levels from a public use airport or private airstrip.

1.14 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Population and Housing.				
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

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)?

Less than significant impact. Subdivision of the project site would facilitate the potential addition of three single-family residential units and possibly four second dwellings, which would directly result in growth in available housing and, if occupied, to the local population. Construction activities associated with development the proposed project would not involve construction of additional public roadways or infrastructure such as wastewater treatment facilities so as to indirectly induce population growth. Since housing and population generated by the proposed project would not exceed local and regional growth projections described in General Plan 2030, growth generated by the proposed project would not be substantial.

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

No impact. The project site is developed with a single-family residence, which would be retained and situated on resultant ~~Parcel 4~~Parcel 3 with approval of the proposed project. The proposed project would not result in the loss of existing housing, or cause a significant increase in the local population that would displace existing residents, necessitating the construction of additional housing.

1.15 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Public Services.				
Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Discussion

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

Fire protection?

Less than significant impact. Fire protection services are provided by Butte County Fire Department/Cal Fire. Build-out of the resultant parcels may incrementally increase the demand for fire protection services. However, the population growth expected with this project is consistent with the planned growth documented in Butte County General Plan 2030. Additionally, Butte County Code requires the payment of fire protection impact fees to help offset the impacts that new residential development has on the fire protection services. Such fees would be used to fund capital costs associated with acquiring land for new fire stations, constructing new fire stations, purchasing fire equipment, and providing for additional staff as needed. Fire protection impact fees would be paid at the time of building permit issuance for a new dwelling unit.

Police protection?

Less than significant impact. The Butte County Sheriff's Office provides law enforcement service to the site. Implementation of the proposed project could increase service calls if additional residential structures are built. Increased development in rural areas impacts the ability of the Sheriff's Department to adequately provide services to outlying areas. It is anticipated that project implementation would not require any new law enforcement facilities or the alteration of existing facilities to maintain acceptable performance objectives. The project's increase in demand for law enforcement services would be partially offset through project-related impact fees.

Schools?

Less than significant impact. The project site is located within the Durham Unified School District. Residential development at the site would result in an incremental demand for school facilities in the area. A development impact fee for school facilities will be assessed at the time of residential development on the resultant parcels. Impact fees would partially offset any potential impact to area school facilities. While school districts maintain that these fees do not fully mitigate the impacts of a project, the County is precluded from imposing additional fees or mitigation by State legislation.

Parks?

Less than significant impact. The project site is located within the Durham Recreation and Park District. Build-out of the resultant parcels would result in an incremental increase in the use of existing local and regional park facilities. Development impact fees will be assessed at the time of residential development which will offset potential impacts to park facilities.

Other public facilities?

Less than significant impact. The project does not require the extension of any public infrastructure, such as roads, water, or sewer systems. Domestic water to existing and planned uses on the resultant parcels would be provided by groundwater extraction via individual wells, unless the extension of DID water line has been extended to the project parcel, prior to development. The project will be required to design to DID standards and construct the water lines within the subdivision and along the project frontage so that connection can be made once the water line has been installed to the project parcel. The project would not result in added need for County services, such as law enforcement, fire protection, libraries, and road maintenance. Butte County collects various types of development impact fees to partially offset the cost and impacts associated with new residential units. These fees vary depending on the dwelling type, and are collected at the time of development.

1.16 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Recreation.				
Would the project:				
a) 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?	☐	☐	☒	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

Environmental Setting

The project site is located within the Durham Recreation and Park District. The district covers an area of approximately 181 square miles, and includes the community of Durham. The district operates and maintains approximately 34.3 acres of developed parkland and facilities to serve a population of approximately 5,500 residents. This translates into a level of service of 6.2 acres of parklands for every 1,000 residents. No park facilities are located in the vicinity of the project site; however, it's anticipated that future residents of the project site would likely use existing facilities, including Durham Community Park which is located approximately ½ mile to the east, to meet their recreational needs.

Discussion

a) 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?

Less than significant impact. Increase in the demand for recreational facilities is typically associated with substantial increases in population. As discussed in Section 1.14 - Population and Housing, the proposed project may generate growth in the local population, if residential units are constructed on the resultant parcels. This in turn may result in increased use of existing parks and recreational facilities in the surrounding area and the parks and recreation district servicing the area. However, because housing and population growth in the project area would be minor (i.e., 7 - 17 new residents with project buildout), the project would not result in a substantial increase in demand for recreational facilities or adversely affect Butte County or Durham park/population standards.

b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No impact. The proposed project does not include plans for additional recreational facilities nor would it require expansion of existing recreational facilities. Therefore, the proposed project would not result in any adverse physical effects on the environment from construction or expansion of recreational facilities.

1.17 TRANSPORTATION

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

Discussion

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

Less than significant impact. The project site is located outside the Durham Urban Area, in an area with a mix of residential uses on varying lot sizes and agricultural uses. There is no existing transit, bicycle or pedestrian facilities located on, or in the vicinity of, the project site. Butte County Association of Governments (BCAG) doe operate a bus service from Biggs/Gridley to Chico, which travels through Durham on Midway. It does have a bus stop to provide service once in the morning traveling north to Chico and once in the evening traveling south to Biggs/Gridley. The future development on the resultant parcels would have minor impacts on alternative transportation facilities due to the limited population growth to the project area. Construction activities associated with future development may generate short-term disruption to area roadways from an anticipated increase in traffic levels that may affect alternative transportation uses. However, construction activities associated with the proposed project would be temporary, and would require traffic control implementation, if needed.

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

Less than significant impact. The project proposes to divide a 5.93 acre parcel into 3 lots, one of which is already developed with a residence. The proposed project is well below the threshold of 11 lots in requiring the analysis for vehicle miles traveled.

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

Less than significant impact. The proposed project would not change the configuration (alignment) of area roadways, and would not introduce types of vehicles that are not already traveling on area roads. The proposed project includes converting an existing driveway into a private road. Future improvements would subject to review by Butte County Public Works. No atypical road design features has been identified on the existing area roadways that would cause a safety hazard.

d) Result in inadequate emergency access?

Less than significant impact. The project site is located in a Local Responsibility Area (LRA). The project site has access of a county-maintained paved road (Durham-Dayton Highway). The project, or future development, will not create inadequate emergency access.

1.18 TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources.				
Has a California Native American Tribe requested consultation in accordance with Public Resources Code section 21080.3.1(b)?	☐ Yes		☒ No	
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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)?	☐	☒	☐	☐
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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☐	☒	☐	☐

Environmental Setting

Tribal Cultural Resources are defined as a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe and is either on or eligible for the California Historic Register, a local register, or a resource that the lead agency, at its discretion, chooses to treat as such (Public Resources Code Section 21074 (a)(1)).

Butte County contains a rich diversity of archaeological, prehistoric and historical resources. The General Plan 2030 EIR observes that the "archaeological sensitivity of Butte County is generally considered high, particularly in areas near water sources or on terraces along water courses" (Butte County General Plan EIR, 2010, p. 4.5-7).

A substantial adverse change upon a historically significant resource would be one wherein the resource is demolished or materially altered so that it no longer conveys its historic or cultural significance in such a way that justifies its inclusion in the California Register of Historical Resources or such a local register (CEQA Guidelines Section 15064.5, sub. (b)(2)). Cultural resources include prehistoric and historic period archaeological sites; historical features, such as rock walls, water ditches and flumes, and cemeteries; and architectural features. Cultural resources consist of any human-made site, object (i.e., artifact), or feature that defines and illuminates our past. Often such sites are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water.

Per AB 52 Notification Request, Public Resources Code Section 21080.3(b), the County received two letters for notification. One was from the Torres Martinez Cahuilla Indians, located in southern California near the Salton Sea, and the other was from United Auburn Indian Community, located near the City of Auburn. It was determined through discussion with the Torres Martinez Cahuilla Indians that they do not identify lands within Butte County within their

geographic area of traditional and cultural affiliation. The United Auburn Indian Community provided a map of their area of traditional and cultural affiliation, which did not include the project site.

Discussion

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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)?

Less than significant impact with mitigation incorporated. A Tribal Cultural Resource is a site feature, place, cultural landscape, sacred place or object, which is of cultural value to a Tribe. According to Butte County constraints mapping, the project site is not located in an area considered to have a high archeological sensitivity. Often cultural resources are found in foothill areas, areas with high bluffs, rock outcroppings, areas overlooking deer migratory corridors, or near bodies of water. The project site is located in the foothills of the Sierra Nevada Mountain Range and could have been utilized in historic or prehistoric times. The site has been extensively disturbed by past intensive agricultural use and residential development. The project site does not contain any rock outcroppings that could have be utilized for shelter.

Native American populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, and seasonal game. Historically, Euro-Americans utilized the region for mining farming, and cattle ranching. With historic use of the project area by prehistoric and historic populations, unanticipated and accidental archaeological discoveries may be encountered during ground-disturbing activities, resulting in potentially significant impacts. Implementation of Mitigation Measure CUL-1, discussed in Section 1.5 – Cultural Resources, would avoid potential impacts to undiscovered prehistoric resources, historic resources, and human remains that may be uncovered during development activities.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than significant impact with mitigation incorporated. See a) above.

1.19 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems.				
Would the project:				
a) Require or result in the relocation or construction of construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider that 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?	☐	☐	☐	☒
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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

Solid Waste

Most municipal wastes are hauled to the Neal Road Recycling and Waste Facility, which is owned by Butte County and managed by the Butte County Department of Public Works. The Neal Road Facility is located at 1023 Neal Road, one mile east from State Highway 99, and seven miles southeast of Chico, on 190 acres owned by Butte County. The Neal Road Facility is permitted to accept municipal solid waste, inert industrial waste, demolition materials, special wastes containing nonfriable asbestos, and septage. Hazardous wastes, including friable asbestos, are not accepted at the Neal Road Facility or any other Butte County disposal facility, and must be transported to a Class I landfill permitted to receive untreated hazardous waste. The facility has a design capacity of 25,271,900 cubic yards and is permitted to accept 1,500 tons per day; however, the average daily disposal into the landfill is approximately 466 tons. As of June 2018, the remaining capacity of the Neal Road Facility is approximately 20,847,970 cubic yards, which would give the landfill a service life to the year 2048 (CalRecycle SWIS Facility Detail, June 2018).

Discussion

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

Less than significant impact. The project site is currently served by electric power (PG&E) and wireless phone service. The project site is within the Durham Irrigation District (DID) Sphere for water. DID has reviewed the project and is allowing the use of individual wells until DID water line is extended along Durham-Dayton Highway. The project will be required to design to DID standards and construct the water lines within the subdivision and along the project frontage so that connection can be made once the water line has been installed to the project parcel. The construction of the waterlines will be located with the existing right-of-way for Durham-Dayton Highway and within the proposed private road easement. Annexation into DID will be required prior water being provided by DID. The parcels will be served by individual wastewater systems and therefore will not any impacts to an existing wastewater treatment facility.

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

Less than significant impact. Domestic water to existing and planned uses on the resultant parcels would be provided by groundwater extraction via individual wells, unless the extension of DID water line has been extended to the project parcel, prior to development. Section 12.0 of the *Butte County Improvement Standards* outline the requirements of water supplies for proposed parcel maps. Proposed subdivisions located outside an urban area and more than a 1,000 feet from an existing public water system, may have its domestic water supplied by individual wells. The quantity and quality of the groundwater for the proposed development is reviewed by the Butte County Environmental Health Division by either a test well, a review of existing wells in the area, or a statement from a licensed well driller together with a report by an engineering geologist or hydrologist verifying that minimum well production for domestic purposes are achieved. Additionally, a well permit is required by the County to ensure well drilling standards are achieved and health and safety standards are met. Well production from new wells would be tested to determine if sufficient output it available for the anticipated uses to occur on the resultant parcels. Based on these reviews, existing groundwater supplies are anticipated to be available to the serve the proposed project, and no additional or expanded entitlements are required for groundwater extraction and use.

The project will be required to design to DID standards and construct the water lines within the subdivision and along the project frontage so that connection can be made once the water line has been installed to the project parcel.

c) Result in a determination by the wastewater treatment provider that 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?

No impact. Wastewater disposal for the proposed project would be provided by private, on-site septic systems. No wastewater treatment provider currently serves the project area. The project site has been evaluated for an on-site septic system and the resultant parcels were determined to have adequate soil conditions to allow for future development of an on-site wastewater system. .

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?

Less than significant impact. Future development of the resultant parcels would result in a minor increase in the stream of household waste being deposited in the Neal Road Recycling and Waste Facility. The California Integrated Waste Management Board estimates that a typical residential household generates approximately 12 pounds of solid waste per day (4.9 pounds per person per day x average household size in Butte County (2.44)). The Neal Road Facility has a maximum permitted throughput of 1,500 tons per day, and an estimated current daily average throughout of 466 tons per day. Therefore, the facility would have adequate capacity to accommodate solid waste generated by the project.

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

No impact. The proposed project would comply with statues and regulations related to solid waste. Waste generated by the proposed project would consist only of domestic refuse, which would be collected in approved trash bins and removed from the project site by a waste hauler or by the residents.

1.20 WILDFIRE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire.				
Is the project located in or near state responsibility areas or lands classified as high fire hazard severity zones?				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		☐ Yes		☒ No
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
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?	☐	☐	☐	☒
c) Require the installation 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Environmental Setting

The project site has been designated as a very high fire hazard by the State Department of Forestry and Fire Protection. The project site is within the Local Responsibility Area (LRA), which means that the State does not have fiscal responsibility for preventing and suppressing wildfires.

Discussion

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

No impact. There would be no lane closures involved in the proposed project that would constrict emergency access or interfere with an emergency evacuation plan.

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?

No impact. The project site is not located in an area that is susceptible to wildland fires.

c) Require the installation 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?

No impact. The proposed project does not require any associated improvements that will potentially exacerbate fire risks or create temporary or ongoing impacts to the environment.

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?

No impact. The project site is not located in the State Responsibility Area or a Fire Hazard severity zone.

1.21 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Mandatory Findings of Significance.				
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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
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.)	☐	☒	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

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 an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less than significant impact with mitigation incorporated. The proposed project's impacts to biological resources and cultural resources were analyzed in this Initial Study, and all direct, indirect, and cumulative impacts were determined to have no impact, a less than significant impact, or reduced to a less than significant impact with implementation of mitigation. No special status species were identified on the proposed development areas. Development of the proposed project would not cause fish or wildlife populations to drop below self-sustaining levels or restrict the movement/distribution of a rare or endangered species. Potential impacts to special-status species habitat would be mitigated to less than significant levels with implementation of Mitigation Measures BIO-1, BIO-2, and BIO-3.

Development of the proposed project would not affect known historic, archaeological, or paleontological resources. There are no known unique ethnic or cultural values associated with the project site, nor are known religious or sacred uses associated with the project site. Mitigation Measure CUL-1 has been identified to confirm the presence or absence of subsurface cultural resources on the project site. Additionally, the project

applicant is required to comply with *California Code of Regulations (CCR) Section 15064.5(e)*, *California Health and Safety Code Section 7050.5*, and *Public Resources Code (PRC) Section 5097.98* as a matter of policy in the event human remains are encountered at any time. Adherence to Mitigation Measures CUL-1, as well as regulations governing human remains, would reduce potential impacts to cultural and paleontological resources to less than significant with implementation of mitigation.

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.)

Less than significant impact with mitigation incorporated. The proposed project has either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated with respect to all environmental issues pursuant to CEQA. Due to the limited scope of direct physical impacts to the environment associated with the proposed project, the project's impacts are primarily project-specific in nature.

The proposed project site is located within an area has been designated by the County for residential and agricultural uses. Short-term construction-related air quality impacts that would result from construction of the site improvements and build-out of the resultant parcels will be reduced to less than significant levels with implementation of Mitigation Measure AIR-1. Mitigation Measure GHG-1, identified in this Initial Study, would reduce potential impacts from the generation of greenhouse gas emissions to less than significant levels.

The cumulative effects resulting from build out of the Butte County General Plan 2030 were previously identified in the General Plan EIR. The type, scale, and location of the proposed project is consistent with County's General Plan and zoning designation and is compatible with the pattern of development on adjacent properties. Because of this consistency, the potential cumulative environmental effects of the proposed project would fall within the impacts identified in the County's General Plan EIR. Build-out of the resultant parcels is subject to required "fair share" development impact fees, which will be paid at the time of development.

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

Less than significant impact with mitigation incorporated. There have been no impacts discovered through the review of this application demonstrating that there would be substantial adverse effects on human beings either directly or indirectly. However, the proposed project has the potential to cause both temporary and future impacts to the area by project-related impacts relating to air, biological, greenhouse gas emissions and cultural resources. With implementation of mitigation measures included in this Initial Study, these impacts would be effectively mitigated to a less than significant level.

Authority for the Environmental Checklist: Public Resources Code Sections 21083, 21083.5.

Reference: Government Code Sections 65088.4.
Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Environmental Reference Materials

1. Butte County. *Butte County Airport Land Use Compatibility Plan*. Butte County Airport Land Use Commission. November 15, 2017. Available at http://www.buttecounty.net/Portals/10/Docs/ALUC/BCALUCP_11-15-17/Butte_County_Airport_Land_ Use_Compatibility_Plan_2017-11-15.pdf
2. Butte County. *Butte County Bicycle Plan*. June 14, 2011. Available at https://www.buttecounty.net/Portals/22/downloads/BikewayMastserPlan/5-23-11%20FINAL%20Draft_County_Bike_Plan%20June%2014%202011%20with%20Table%20of%20Contents.pdf
3. Butte County. *Butte County Climate Action Plan*. December 14, 2021. Available at http://www.buttecounty.net/dds/bccapupdate2020
4. Butte County. *Butte County General Plan 2030 Final Environmental Impact Report*. April 8, 2010. Available at http://www.buttegeneralplan.net/products/2010-08-30_FEIR/default.asp.
5. Butte County. *Butte County General Plan 2030*. October 26, 2010. Available at http://www.buttecounty.net/dds/Planning/GeneralPlan/Chapters.aspx
6. Butte County. *Butte County General Plan 2030 and Zoning Ordinance Amendments – Draft Supplemental Environmental Impact Report*. June 17, 2015. Available at http://www.buttegeneralplan.net/products/2012-05-31_GPA_ZO_SEIR/default.asp
7. Butte County. *Butte County General Plan 2030 Setting and Trends Report Public Draft*. August 2, 2007. Available at http://www.buttegeneralplan.net/products/SettingandTrends/default.asp.
8. Butte County. *Butte County Code of Ordinances, Chapters 19, 20, 24 & 41A*. Available at https://www.municode.com/library/ca/butte_county/codes/code_of_ordinances/
9. Butte County. *Butte County Department of Development Services GIS Data*. February 2019.
10. Butte County Air Quality Management District. *CEQA Air Quality Handbook – Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review*. October 23, 2014. Available at https://bcaqmd.org/planning/air-quality-planning-ceqa-and-climate-change/
11. Butte County Public Works Department, Division of Waste Management. Joint Technical Document-Neal Road Recycling and Waste Facility, Butte County, California. November 2017.
12. California Department of Conservation. *Fault-Rupture Hazard Zones in California. Altquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps*. Special Publication 42. Interim Revision. 2007.
13. California Department of Conservation, Division of Land Resource Protection. *A Guide to the Farmland Mapping and Monitoring Program*. 2004.
14. California Department of Toxic Substance Control. 2009. *Envirostor Database*. Accessed on November 2020. http://www.envirostor.dtsc.ca.gov/public.
15. California Department of Finance. *Population and Housing Estimates for Cities, Counties, and the State, 2011-2018*. March 5, 2019.
16. California Department of Water Resources, Northern Region Office. Geology of the Northern Sacramento Valley, California. September 2014.
17. Howell It Is. Oak Tree Mitigation Plan. February 25, 2019.
18. Howell It Is. Addendum to Oak Tree Mitigation Plan. April 11, 2019.

Mitigation Measure AIR-1

The following best practice measures to reduce impacts to air quality shall be incorporated by the project applicant, subject property owners, or third-party contractors during construction activities on the project site. These measures are intended to reduce criteria air pollutants that may originate from the site during the course of land clearing and other construction operations. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "Dust generated by the development activities shall be kept to a minimum and retained on-site. Follow the air quality control measures listed below:

Diesel PM Exhaust from Construction Equipment and Commercial On-Road Vehicles Greater than 10,000 Pounds

- All on- and off-road equipment shall not idle for more than five minutes. Signs shall be posted in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- Idling, staging and queuing of diesel equipment within 1,000 feet of sensitive receptors is prohibited.
- All construction equipment shall be maintained in proper tune according to the manufacturer's specifications. Equipment must be checked by a certified mechanic and determined to be running in proper condition before the start of work.
- Install diesel particulate filters or implement other CARB-verified diesel emission control strategies.
- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 100 feet of a restricted areas.
- To the extent feasible, truck trips shall be scheduled during non-peak hours to reduce perk hour emissions.

Operational TAC Emissions

- All mobile and stationary Toxic Air Contaminants (TACs) sources shall comply with applicable Airborne Toxic Control Measures (ATCMs) promulgated by the CARB throughout the life of the project (see http:www.arb.ca.gov/toxics/atcm/atcm.htm).
- Stationary sources shall comply with applicable District rules and regulations.

Fugitive Dust

Construction activities can generate fugitive dust that can be a nuisance to local residents and businesses near a construction site. Dust complaints could result in a violation of the District's "Nuisance" and "Fugitive Dust" Rules 200 and 205, respectively. The following is a list of measures that may be required throughout the duration of the construction activities:

- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. An adequate water supply source must be identified. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.
- All dirt stockpile areas should be sprayed daily as needed, covered, or a District approved alternative method will be used.

- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.
- Exposed ground areas that will be reworked at dates greater than one month after initial grading should be sown with a fast-germinating non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to re-vegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the Butte County Air Quality Management District.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with local regulations.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- Post a sign in prominent location visible to the public with the telephone numbers of the contractor and the Butte County Air Quality Management District - (530) 332-9400 for any questions or concerns about dust from the project."

All fugitive dust mitigation measures required should be shown on grading and building plans. In addition, the contractor or builder should designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend period when work may not be in progress. The name and telephone number of such persons shall be provided to the District prior to land use clearance for map recordation and finished grading of the area. Please note that violations of District Regulations are enforceable under the provisions of California Health and Safety Code Section 42400, which provides for civil or criminal penalties of up to $25,000 per violation.

Plan Requirements: The note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. This note shall also be placed on all building and site development plans.

Timing: Requirements of the condition shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Building inspectors shall spot check and shall ensure compliance on-site. Butte County Air Pollution Control District inspectors shall respond to nuisance complaints.

Mitigation Measure BIO-1

Habitat Assessment. A qualified biologist with education and experience in bat biology and identification and approved by CDFW, shall conduct a habitat assessment for potentially suitable bat habitat within six months of Project activities. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey between March 1 and October 31. If bats are present anywhere within the Project site, then the qualified biologist shall submit a bat avoidance plan to CDFW for review and approval.

Bat Avoidance Plan. The bat avoidance plan should identify: 1) the location of the-roosting sites; 2) the number of bats present at the time of assessment (count or estimate); 3) species of bats present; 4) the type of roost (e.g. day/night, maternity, hibernaculum, bachelor); 5) proposed Project related impacts to the roost; and 6) species specific measures to-avoid and minimize impacts to bats including but not limited to the following:

- No Disturbance Buffer. No disturbance buffers to be established around occupied roosts in consultation with CDFW. The size of the buffer should be determined by the qualified bat biologist based on the bat species, specific site conditions, and level of disturbance. The buffer should be maintained until the qualified bat biologist determines that the roost is no longer occupied.

- Bat Exclusion. If a bat roost is found in a tree that must be removed, the qualified bat biologist shall prepare a Bat Exclusion Plan outlining the proposed passive exclusion of the bats from the roost. Exclusion shall be scheduled either (1) between March 1 and March 31, prior to parturition of pups and when nighttime lows are above 45°F; or (2) between September 1 and October 31, prior to hibernation, when nighttime lows are above 45°F. The qualified bat biologist shall confirm the absence of bats prior to the start of construction. The Bat Exclusion Plan shall be submitted to CDFW for review and approval a minimum of 10 days prior to the installation of exclusion devices. CDFW does not support eviction of bats during the maternity or hibernation periods.

- Replacement Roosts Structures. If bat roosts cannot be avoided, replacement roost structures (bat houses or other structures) shall be designed to accommodate the bat species displaced by Project activities and installed onsite. The placement of the constructed roosts shall be determined through consultation with CDFW. Ideally, the project would not be implemented unless and until replacement roost structures on site are documented to be acceptable and used by the bat species of interest.

Plan Requirements: conduct a habitat assessment for potentially suitable bat habitat. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey. If bats are present anywhere within the Project site, then the qualified biologist shall submit a bat avoidance plan to CDFW for review and approval. This measure shall be recorded on an additional map sheet to the Parcel Map.

Timing: Requirement to conduct a habitat assessment for potentially suitable bat habitat within six months of Project activities. If the habitat assessment reveals suitable bat habitat, then a qualified bat biologist shall conduct a presence/absence survey between March 1 and October 31.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded an additional map sheet of the Parcel Map. Department of Development Services shall ensure the condition is met at the time of construction activities. If suitable bat habitat exists, California Department of Fish & Wildlife shall review and approve the bat avoidance plan.

Mitigation Measure BIO-2

The applicant/developer shall satisfy one of the following:

A. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime) an Oak Tree Mitigation Plan prepared by a certified arborist, registered professional forester, botanist or landscape architect shall be submitted for review and approval by the Director of Development Services or his/her designee that includes:

   1) A survey showing the location of oak trees 5 inches or more in diameter at breast height, as defined by PRC §21083.4(a);

   2) The removal of all oak trees 5 inches or more in diameter at breast height shall be mitigated. It shall be mitigated by one or more of the following: replanting and maintaining oak trees, establishing conservation easements, contributing funds for off-site oak woodlands conservation, and/or other mitigation measures developed by Butte County. Replanting oak trees cannot account for more than one-half of the mitigation. Replanted oak trees shall be maintained for a period of seven years after they are planted. If any of the replanted oak trees die or become diseased, they shall be replaced and maintained for seven years after the new oak trees are planted;

   3) A replanting schedule and diagram for trees removed or encroached upon by permit activities consistent with PRC §21083.4(b)(2), applicable mitigation measures, and Butte County Ordinance, if any, shall be submitted to and approved by the Director of Development Services or his/her designee. Replanted trees shall be planted in areas deemed appropriate by the Plan, considering future lot development, interference with foundations, fencing, roadways, driveways, and utilities. Trees planted shall be protected from livestock and other animals;

   4) Oak Tree protection measures for trees to be retained within the project site shall be included in construction specifications. Each oak tree to be preserved shall be surrounded by a tree zone identified by the drip line of the tree. An orange plastic fence or other suitable type of fence shall be used to identify the tree zone during construction activities. No vegetation removal, soil disturbance, or other development activities shall occur within the tree zone in order to protect root systems and minimize compaction of the soil, unless authorized by Oak Tree Mitigation Plan; and

   5) Conservation easements or funds for off-site oak woodlands conservation shall be proposed to and approved by the Director of Development Services or his/her designee.; or

B. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime) the developer shall be consistent with the County's adopted oak mitigation ordinance.; or

C. Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: Prior to any development activity or the issuance of any permit or approval removing or encroaching upon oak trees on the project site (this generally includes the canopy drip-line of trees within the area of ground disturbance and trees subject to changes in hydrologic regime)

the project shall be consistent with all avoidance and minimization measures and the applicant shall pay applicable in lieu fees to mitigate for blue oak woodland impacts as provided in the adopted Butte County Resource Conservation Plan.

Plan Requirements: No vegetation removal, grading, road construction, or other earthwork resulting in the removal or encroachment upon oak trees on the project site shall be permitted until the mitigation measure is satisfied by the applicant/developer completing one of the specified measures to the satisfaction of the Director of Development Services or his/her designee.

Timing: Requirements of the condition shall be satisfied prior to any development activity or the issuance of any grading, building, septic, or well permit, or the approval of any improvement plans on the parcels.

Monitoring: The Butte County Department of Development Services and Department of Public Works shall ensure that the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. At the time of septic, well, or building permit application, the Development Services Department will reference this requirement on any grading, building, septic, or well permit site plans and verify that actions necessary to verify this measure have been satisfied have been submitted to and approved by the Director of Development Services or his/her designee. Butte County building inspectors shall ensure compliance on-site.

Mitigation Measure BIO-3

If project construction activities, including site grubbing and vegetation removal, occur during the nesting season for birds protected under the Migratory Bird Treaty Act (MBTA) and California Department Fish & Game Code (CDFC) (approximately ~~March~~ February 1 – August 31), the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting bird species. If an active nest is discovered outside of the typical nesting season, it shall be avoided using the same avoidance measures that would be applied during the typical nesting season. Surveys to identify active bird nests shall be conducted within and 250 feet around the footprint of proposed construction site. The survey shall be conducted within 7 days prior to the initiation of construction activities. In the event that an active nest is observed, a species protection buffer shall be established. The species protection buffer will be defined by the qualified biologist based on the species, nest type and tolerance to disturbance. Construction activity shall be prohibited within the buffer zones until the young have fledged or the nest fails. Nests shall be monitored by a qualified biologist once per week and a report submitted to the Butte County Department of Development Services.

Plan Requirements: Perform protocol-level surveys for migratory birds protected by the California Department Fish & Game Code and the Migratory Bird Treaty Act. This measure shall be recorded on an additional map sheet to the Parcel Map.

Timing: Requirements of the condition shall be adhered to prior to and during construction activities planned to occur during nesting seasons for CDFC and MBTA species (between ~~March~~ February 1 and August 31). If an active nest is discovered outside of the typical nesting season, it shall be avoided using the same avoidance measures that would be applied during the typical nesting season.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the note is recorded an additional map sheet of the Parcel Map. Department of Development Services shall ensure the condition is met at the time of construction activities.

Mitigation Measure CUL-1

Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "If grading activities reveal the presence of prehistoric or historic cultural resources (i.e., artifact concentrations, including arrowheads and other stone tools or chipping debris, cans glass, etc.; structural remains; human skeletal remains) work within 50 feet of the find shall immediately cease until a qualified professional archaeologist can be consulted to evaluate the find and implement appropriate mitigation procedures. If human skeletal remains are encountered, State law requires immediate notification of the County Coroner (530.538.7404). If the County Coroner determines that the remains are in an archaeological context, the Native American Heritage Commission in Sacramento shall be notified immediately, pursuant to State Law, to arrange for Native American participation in determining the disposition of such remains. The provisions of this mitigation shall be followed during construction of all subdivision improvements, including land clearing, road construction, utility installation, and building site development."

Plan Requirements: This note shall be placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet and shall be shown on all site development and building plans.

Timing: This measure shall be implemented during all site preparation and construction activities.

Monitoring: The Department of Development Services and/or Public Works Department shall ensure the note is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. Should cultural resources be discovered, the landowner shall notify the Planning Division and a professional archaeologist. The Planning Division shall coordinate with the developer and appropriate authorities to avoid damage to cultural resources and determine appropriate action. State law requires the reporting of any human remains.

Mitigation Measure GHG-1

Place a note on a separate document which is to be recorded concurrently with the map or on an additional map sheet that states: "To the extent feasible, the project proponent shall implement the following measures during construction-related activities and at the time of development to offset the anticipated contribution of greenhouse gas emissions:

- Support expansion of renewable energy systems
  - Prewire all new residential development to support photovoltaic system installation.
- Support efficiency in vehicles and landscaping equipment
  - Install electrical vehicle outlets on external walls or in garages in all new residential development.
- Improve fuel efficiency of equipment during construction-related activities
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minute.
  - Use clean or alternative fuel equipment."

Plan Requirements: The measure shall be placed on an additional map sheet which is to be recorded with the Parcel Map. This note shall also be placed on all building and site development plans.

Mitigation Measures and Monitoring Requirements

Symmes Tentative Parcel Map (TPM21-0009)

Timing: Shall be implemented prior to issuance of building permits for residential development. Construction-related measures shall be adhered to throughout all grading and construction periods.

Monitoring: The Butte County Department of Development Services and the Public Works Department shall ensure that the measure is placed on a separate document which is to be recorded concurrently with the map or on an additional map sheet. The Planning Division will ensure that future residential development includes the applicable measures during Building Permit review. Building inspectors shall spot check and shall ensure compliance on-site.

Project Sponsor(s) Incorporation of Mitigation into Proposed Project

I/We have reviewed the Initial Study for Tentative Parcel Map (TPM21-0009) application and particularly the mitigation measures identified herein. I/We hereby modify the applications on file with the Butte County Planning Department to include and incorporate all mitigations set forth in this Initial Study.

Anthony G Symmes 3/28/2022

Project Sponsor/Project Agent — Date

Project Sponsor/Project Agent — Date

HOWELL IT IS

Consulting Arborist

ISA Certified Arborist WE-6478A

Registered Professional Forester #2500

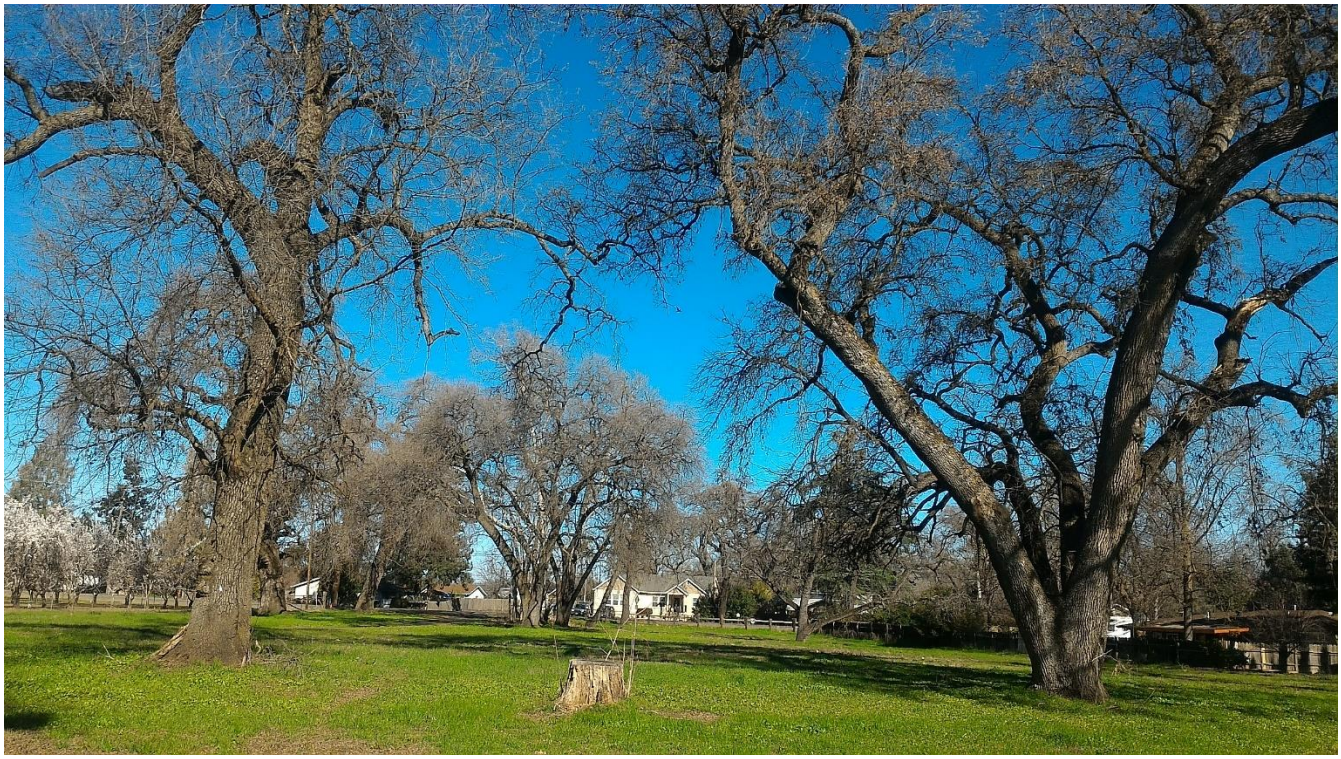
www.howellitis.com

Dan Howell,
Member CH 06408

Oak Tree Mitigation Plan

Prepared by HOWELL IT IS
for
LDI Land and Home, Inc.

Butte County APN 040-200-003



1232 Lewis Oak Road
Gridley, CA 95948
February 25, 2019

(530) 846-7962
www.howellitis.com
February 25, 2019

Oak Tree Mitigation Plan
Table of Contents

Oak Tree Mitigation Plan

Introduction

While oak woodland is abundant in California, past experience demonstrates that unless an effort is taken to conserve oak woodlands, it will be converted to irrigated landscapes and pavement. The purpose of the Oak Tree Mitigation Plan is to inventory the oak woodland as a measure for conservation and educate landowners in the protection and conservation of oak woodlands, while allowing landowners to develop property.

Assignment

HOWELL IT IS -- to do the following:

- Prepare an Oak Tree Mitigation Report to be submitted to Butte County.

Location

2125 Durham-Dayton Highway, Durham, CA 95938,
Butte County APN 040-200-003

Limitations

Condition ratings were based on a visual tree assessment (VTA). VTA is an efficient way to examine many trees at a time, but does not explore with an intensity to recognize hidden defects. The inventory for this report was done when the oaks were dormant and had no leaves.

Any photographs, diagrams, graphs, sketches, maps or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work product of any other persons is intended solely for the purpose of clarification and ease of reference. Inclusion of said information does not constitute a representation by HOWELL IT IS as to the sufficiency or accuracy of that information.

Method

All live oak trees five-inches (DSH) and larger were tagged for future identification with numbered aluminum tree tags. Species, condition, and diameter were recorded for all measured trees. Driplines were measured using a Simmons Laser Rangefinder. I stood beneath the trees' limb end that extended farthest from the bole of the tree and measured that distance to be the approximate dripline.

A Garmen Glo2 global positioning receiver was used to map trees and store data associated with each tree. Mapping accuracy of the GPS unit were approximately 6 feet. The tree inventory was mapped using GIS desktop software.

A Spencer diameter tape was used to measure diameters of each tree. Diameters were measured to the nearest half inch. All oak trees equal to or greater than five inches were measured, tagged and given ratings of condition.

Condition Ratings

1. **Excellent** exemplifies the quality that outwardly sound trees free of injury with good growth and form.
2. **Good** is healthy, and may grow to become excellent
3. **Fair** may have suppressed growth, and is not likely to grow into a good condition
4. **Poor** represents an unhealthy or physically damaged tree

The parcel maps used in this report emailed to HOWELL IT IS by **Feeney Engineering and Surveying**.

Observations

Valley Oak (*Quercus lobata*) is a key vegetative component of this property. Most of the trees are large. The northern half of the property has been maintained by mowing, disc, or other method to maintain an open savanna like terrain shared by large black walnut (*Juglans nigra*) and sycamore (*Platanus sp.*).

The center half of the property leading up to the house and on two sides is wooded and not as open as described in the preceding paragraph. Many trees have been planted into the landscape around the oaks in this area.

An **Oak Tree Inventory Map** and **Oak Tree Inventory Table** can be found in the **Appendix.**

Many of the valley oaks are missing limbs due to heavy winds or sudden limb drop. These fractures have not been trimmed, but limbs on the ground have been removed. Some of the valley oaks have dead limbs still hanging in the canopy presenting danger to human activity beneath.

Discussion

California SB 1334

California Governor Arnold Schwarzeneger signed Senate Bill 1334 (Oak Woodland Conservation Act) into effect August of 2004. SB 1334. The bill gives each county the authority of lead agency when reviewing permitted projects that may have a significant impact on oak woodland. A summary of the bill is included in the **Appendix**.

Project Description

An unoccupied house on the site is expected to be used as a residence. A garage, or barn is to be constructed. The parcel may be split into smaller parcels.

Soil

The soil is classified by the Natural Resource Conservation Service as:

- Map Unit 360—Typic Xerofluvents gravely loam sand to course gravely sandy loam 0-2% slope represents approximately 40% of the property. This soil is well drained and 84-95 inches deep.
- Map Unit 419—Conejo fine sandy loam 0-2% slope makes up about 52.2 percent of the parcel. This soil includes some clay but is well drained and rich in nutrients. It is 70-72 inches deep with loam being the primary constituent.

Valley Oak

Valley oak (*Quercus lobata*) tends to grow in deep valley soils It's common to see valley oak grow 3-4 feet in height per year. Valley oak is adapted to California's long dry summer, but also thrive in riparian corridors. Valley oaks are prolific and the dominant native hardwood in the Sacramento Valley.

Oak Protection

Root protection zone

An important part of the oak survival system is its roots. The small fibrous roots generally extend beyond the dripline of the canopy and are concentrated within the first two feet of soil surface.

Damaging the root system by cutting or compaction can injure or kill a tree. The potential for negatively affecting tree health increases as construction nears the trunk of the tree. It is a common practice to protect trees by excluding equipment and vehicle traffic from the area within the dripline of the tree. Trees are often killed by haphazard construction digging within the root zone. Old trees in fair and poor condition are most easily damaged.

During construction, it is paramount that trees are protected from mechanical damage. A best management practice for this is preventing any construction within the root protection zone (RPZ). The dripline distance is determined by measuring the length of the limb that reaches out furthest from the bole of the tree. Multiplying that distance by a factor of 1.5 gives the RPZ. A tree with a dripline of 30 feet would have a protected radius of 45 feet plus the radius of the tree stem. Fencing off the area with chain link fence is preferred. Construction crews have a tendency to move stakes and plastic orange fencing resulting in a gradual significant reduction of the tree root protection zone (RPZ). Measured driplines are in the **Oak Tree Inventory** (see **Appendix**).

The greatest physical damage incurred to tree roots is the horizontal ripping and tearing. A dull blade's ripping and tearing action is capable of pulling the lateral roots and causing horizontal wounds much closer to the bole of the tree than where the action takes place. If roots must be cut, a clean cut with a sharp tool is preferred to cutting with a dull blade, like that of a dozer or backhoe bucket. A sharp cut root has a chance to heal, where a root fractured horizontally, or lengthwise, will never heal. It has been estimated that greater than 80% of the root volume is in the first two feet of soil. When grade lowering is required within the root protection zone (RPZ) all roots to be impacted should be sharply severed to a depth equal to or greater than the grade lowering. The objective of this is to prevent horizontal tearing of otherwise undamaged roots. This method should not reduce the intact root system to less than the dripline distance.

Restricting new construction to as few sides of a tree as possible reduces potential mechanical damage.

Above ground tree protection
Fencing the RPZ also protects trees from mechanical damage. Without protective fencing, limbs are routinely broken by mistake and on purpose. The construction supervisor may be well aware of the importance of tree protection, but not all equipment operators share that knowledge. Operators are known to improperly prune trees with an excavator bucket when a limb is "in the way." Drivers of dump trucks are known to pay little attention to overhead branches while they lay out a load of gravel. Fencing the RPZ prevents that.

Without fencing of RPZs and driplines, these areas tend to evolve into storage areas. Fork lift operators drive under low hanging limbs and stack pallets up against tree stems for support. Damaged sacks of tree toxic soluble materials may be leached into root systems of unprotected trees.

Unlike roots, the stem of a tree is not adapted to being buried in a soil environment. Covering woody bark tissue in soil provides access to pathogens that the bark is not prepared to fight. Covering open wounds in the bark with soil increases the potential for infection. Irrigating soil deposited above the root crown also increases the potential for the growth of pathogens. Fencing the RPZ prevents soil being pushed up against the tree bole.

Water damage
Irrigation of oaks during the growing season is unnecessary for established or existing trees and can lead to proliferation of soil borne pathogens. If soil is kept moist and ambient temperatures are high, pathogens, such as armillaria and phytophthora, can expand populations exponentially. Occasional watering is ok as long as there are long dry periods between episodes, which allow soil to dry. The location of leach fields is important when trying to protect oaks. **Continuous soil saturation during the summer season is bad for the health of oaks.**

Oak trees grow best in openings with full sun exposure. Once established, oak survival is not hindered by wildland grasses and forbs except during severe drought.

Healthy Oak Woodland

There is no cookbook for a healthy forest. SB 1334 grew out of the concerns for the loss of oak woodlands caused by conversion to other uses.

Like all regulations, one size does not fit all. Planting three trees for every one removed is not always the best for the environment. Open grassland is a part of the oak savannah that may be eliminated if it is used to mitigate individual tree removal. The result is a loss of edge habitat and biodiversity.

While an arborist classifies a dying oak full of cavities as in poor condition, a blue bird and an opossum may call it home. What is that tree worth? One shoe does not fit every foot.

Senate Bill 1334 requires counties to have the landowner plant the "appropriate number of trees" as mitigation for oaks removed. When it is the landowner's intention to maintain most of its land as woodland and respect it as habitat, I believe that landowner should receive some credit.

Estimated Oak Removal and Replacement

The list **Oak Inventory** in the appendix consists of oaks that may potentially be removed or are near enough to proposed infrastructure to be damaged. No mitigation is necessary until construction and the actual number of trees to be impacted is known. Numbered-tags from those trees are to be submitted to the county. Not all tagged trees are expected to be removed.
Landowner is only responsible for mitigation of trees removed or negatively impacted.

Planting Areas

All soil on this parcel is optimum for planting valley oak seedlings. Location of plantings are determined by desired shade, long term protection of infrastructure, and space required for the growth of trees.

By following instructions in **Design, Tree Protection, and Mitigation Measures** in this plan, the objective of preserving all oaks can be met.

Inspections are required prior to grading to determine which trees can be protected on the periphery of construction.

HOWELL IT IS suggests that replanting seedlings on a 1-3 replacement ratio for single-stem trees removed/damaged equal to or less than 23 inches DSH and 1-10 replacement ratio for single-stem trees larger than 23 inches will be adequate restocking on this site.

While oak tree preservation is the goal of SB 1334 (PRC 21083), landowners still have the freedom to remove as many oak trees as they wish – as long as there are adequate mitigation measures in place and no long term significant negative impact will occur. A project may be denied if the county finds mitigation measures to be inadequate.

Avoidance is the best protection measure.

California Senate Bill 1334 stipulates that:

(2) (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
(B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.
(C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirements for the project.

(D) The requirements imposed pursuant to this paragraph also may be used to restore former "oak woodlands."

Design, Tree Protection, and Mitigation Measures

Design

1. Trees found dangerous or defective during the construction process shall be removed and replaced or designated as such to users.
2. Do not design turf that requires irrigation into the landscape within the dripline of oaks.
3. Nurture natural reproduction as potential replacement trees and take advantage of clearings to plant oak trees. Natural reproduction less than 5-inch diameter protected with grow-tubes may be counted as mitigation trees.
4. Trees that are planted as mitigation should be out of harm's way from future construction. Planting too close could result in root caused damage to the structures. These planted trees are to be maintained for seven years. Trees that die shall be replaced, one to one, during that period.
5. Not all oak trees that are mapped need to be negatively impacted. Landowner should collect tree tags from trees removed and deliver to county inspectors or have a forester/arborist inspect the area during construction to determine the actual loss of oaks. From that information the required number of trees to replace can be determined.
6. Locate roads where the least oak tree removal is necessary.
7. Runoff from summer irrigation shall be directed away from trees that do not require irrigation. Water conservation should be observed.
8. Mitigation related to development of building envelopes is the responsibility of the lot landowner. This Oak Mitigation Plan is a guideline and tool for not only the current landowner, and future landowners as well.

Tree Protection

9. Temporary fencing shall be installed around the dripline of each tree in the included inventory and is not to be removed, unless stated in writing otherwise by an ISA Certified Arborist or Registered Professional Forester.
10. Any pruning of trees related to this project must be supervised by an ISA Certified Arborist and performed by ISA Certified Tree Workers following best pruning practices as described by the American National Standards Institute (ANSI) Pruning Standards 2007.

Mitigation Options

11. **HOWELL IT IS** suggests that replanting seedlings on a 1-3 replacement ratio for single-stem trees removed/damaged equal to or less than 23 inches DSH and 1-10 replacement ratio for single-stem trees larger than 23 inches will be adequate restocking on this site. Seedling health shall be monitored for seven years.

12. The protection and monitoring of seedlings resulting from natural acorn reproduction is acceptable as planting if they are in the outer third of the dripline of, or farther, from an oak stem.
13. Areas of oak woodland will be maintained or increased outside the construction footprint.
14. Protect wildlife trees in "Poor" condition if they do not represent a physical danger to humans or proposed structures.
15. Trees on the **Oak Inventory** list that die within seven years shall also be replaced.
16. Contribute to the Oak Woodlands Conservation Fund to be administered by the California Wildlife Conservation Board.
17. Contribute to an Oak Woodlands Conservation Fund to be administered by Butte County.
18. Create a mitigation that includes part of any of the first three options with the remainder of the mitigation to be satisfied by a contribution to an Oak Woodlands Conservation Fund.

Recommendations

- Follow guidelines set by **Design, Tree Protection, and Mitigation Measures.**
- Seek to avoid construction in RPZs of oaks. Trees that have conditions ratings of "fair" or "poor" are expected to become hazardous in a relatively short time if measures are not taken. Measures being severe trimming or removal.
- Not all oak trees that are mapped need to be negatively impacted. Landowner should collect tree tags from trees removed and deliver to county inspectors or have a certified arborist inspect the area during construction to determine the actual loss of oaks.
- It is suggested that seedlings be replanted on a 1-3 replacement ratio for single-stem trees removed/damaged equal to, or less than, 23 inches DSH. A replacement ratio of 1-10 seedlings planted for single-stem trees larger than 23 inches will be adequate restocking on this site.
- Plant the appropriate number of oak tree seedlings along fence lines, trails, roads and in natural and unnatural openings outside building envelopes in adequate soil. Be aware of overhead utility lines and leave adequate space for growth of the tree crown. See **Keys to Successful Planting** in the **Appendix** pages 12-15 .
- Conserve natural habitat and water.
- Maintain oak plantings for seven years. Replace planted trees that die one to one during the monitoring period and restart the seven-year clock.

1232 Lewis Oak Road
Gridley, CA 95948
(530) 846-7962
FAX (530) 846-7962

Conclusion

There are 25 valley oaks in the inventory. All counted trees can be identified in the field by their numbered aluminum tags. Oak removal due to future projects may reduce the overall oak woodland canopy in the short term, but after mitigation planting this project will be healthier, safer, and have increased longevity.

ISA Certified ARBORIST WE-6478A
By:

Dan Howell – RPF #2500

Appendix

1232 Lewis Oak Road
Gridley, CA 95948
(530) 846-7962
FAX (530) 846-7962

Parcel 1 Oak Inventory

Parcel 1		DSH		Dripline	RPZ
Species	Identification	Inches	Condition	Radius (ft)	Radius (ft)
Valley Oak	326	64.5	fair	45	67.5
Valley Oak	327	67	fair	57	85.5
Valley Oak	328	41.5	good	51	76.5
Valley Oak	329	46	fair	48	72
Valley Oak	330	75.5	poor	60	90
Valley Oak	331	30	fair	42	63
Valley Oak	332	42	good	51	76.5
Valley Oak	399	55	fair	54	81
Valley Oak	398	43.5	fair	42	63
Valley Oak	397	41	good	54	81
Valley Oak	396	40.5	good	66	99
Valley Oak	395	24.5	excellent	36	54
Valley Oak	394	37.5	good	60	90
Valley Oak	393	57	fair	80	120
Valley Oak	392	78	fair	57	85.5
Valley Oak	391	57.5	poor	54	81
Valley Oak	390	35	fair	39	58.5
Valley Oak	389	28	good	57	85.5
Valley Oak	388	22	good	39	58.5
Valley Oak	387	61.5	good	57	85.5
Valley Oak	386	30.5	excellent	45	67.5
Valley Oak	385	31.5	good	27	40.5
Valley Oak	384	35	good	63	94.5
Valley Oak	383	23.5	fair	39	58.5
Valley Oak	382	12	fair	33	49.5

1232 Lewis Oak Road
Gridley, CA 95948
(530) 846-7962
FAX (530) 846-7962

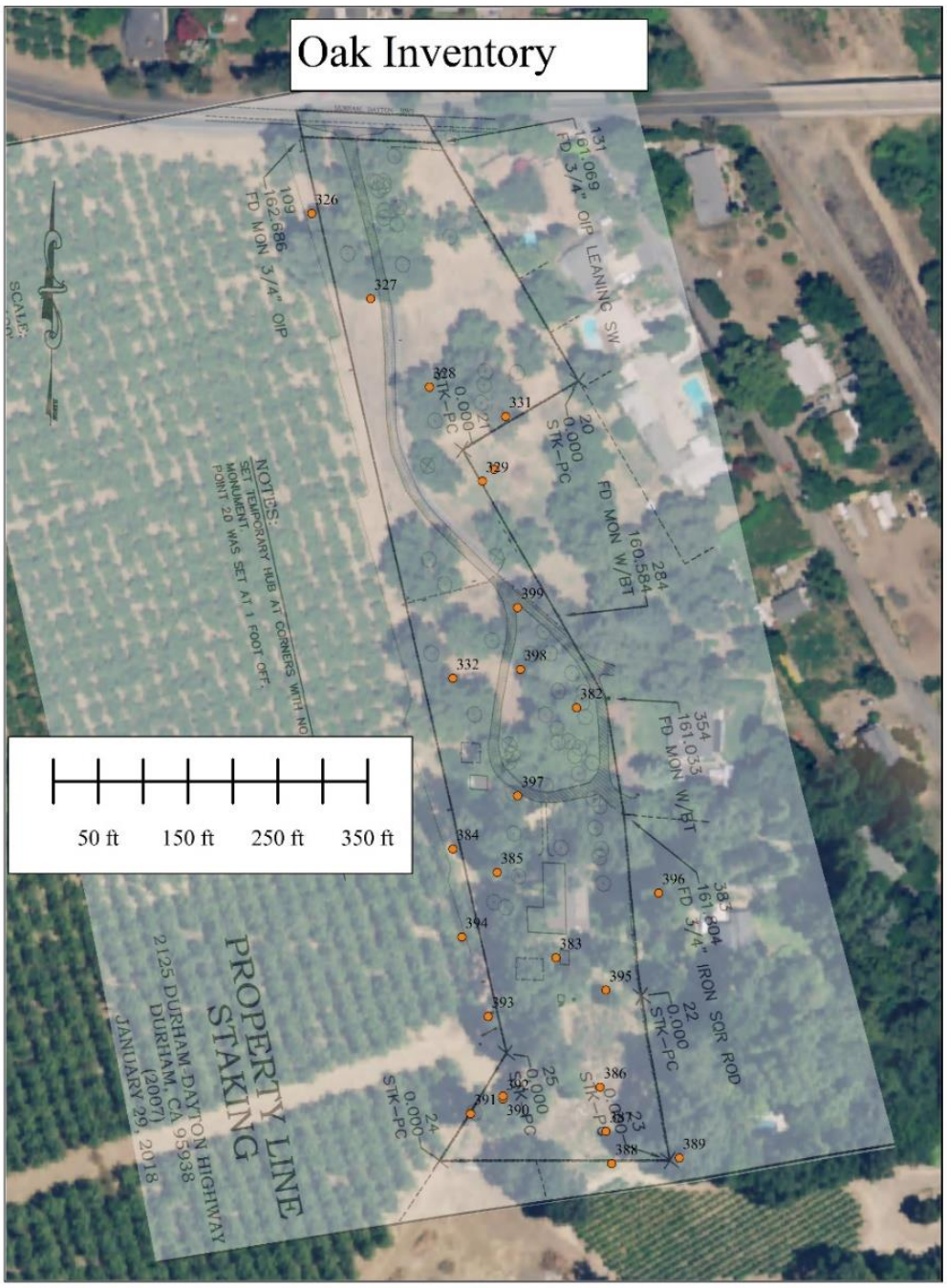
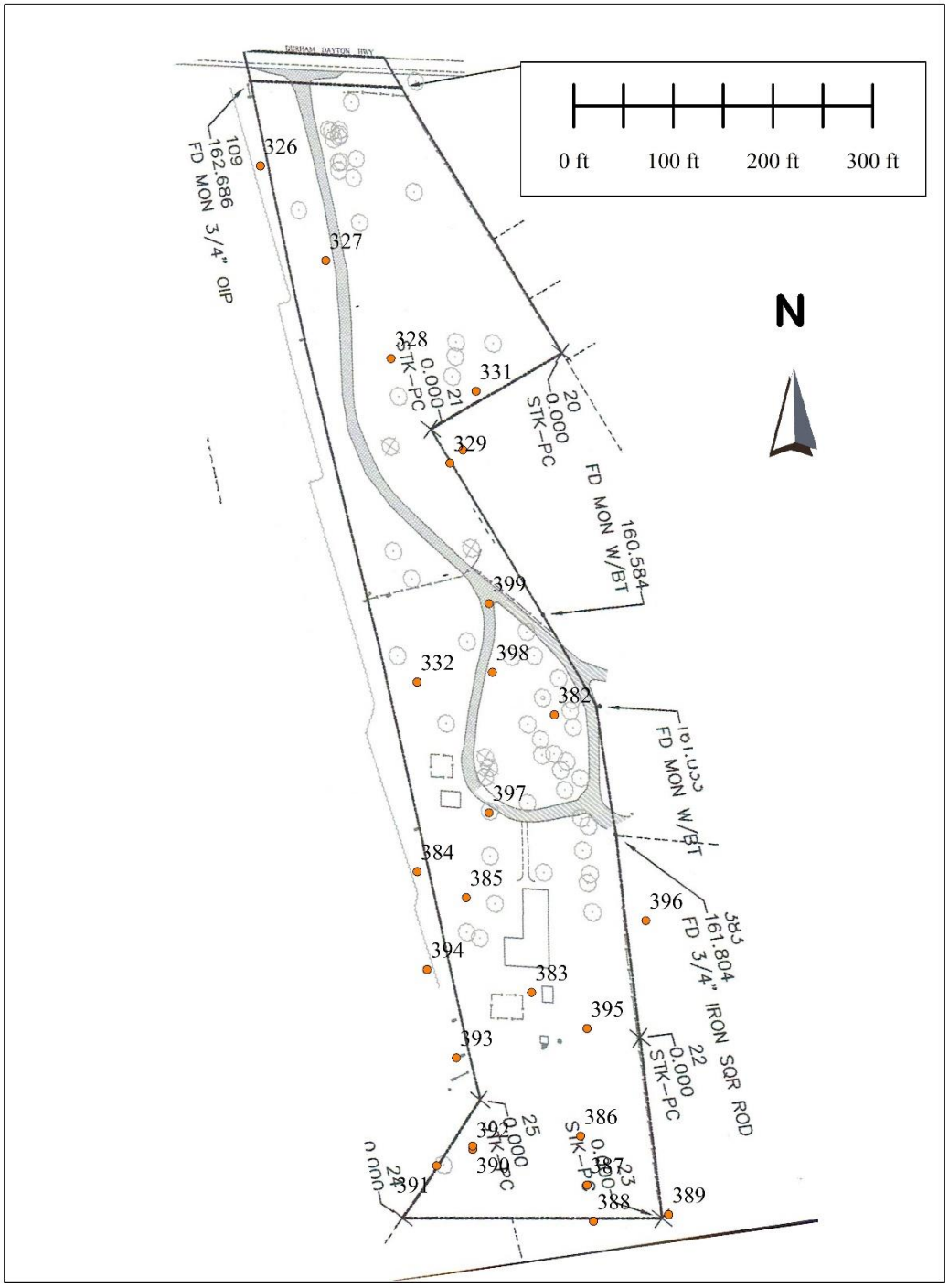


Figure 1--Orange dots represent approximate valley oak locations. Numbers are nailed to trees for identification. The map on following page is easier to read ID numbers.

Valley Oak Tree Location Map



Oak Tree #330 is next to #329, but not visible on map.

1232 Lewis Oak Road
Gridley, CA 95948

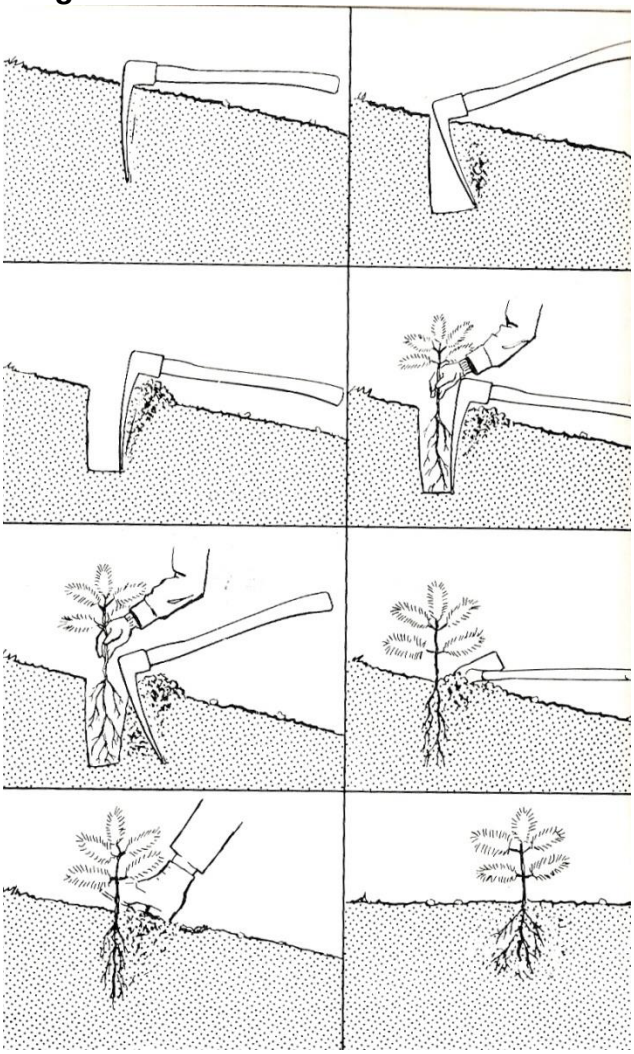
(530) 846-7962
FAX (530) 846-7962

Keys to successful planting

1. Purchase the best available nursery stock. Look for a root to shoot ratio greater than one; the root mass should be more than the shoot.
2. Take care to keep the roots moist and cool until they are in the ground. Do not allow the roots to dry out or freeze!
3. If the seedlings are grown in tubes or D-pots (these tubes are different from those described in seedling protection measures below), remove tubes just before planting.
4. Replacement trees should be planted when the **soil is saturated** from rain. For the greatest success, trees should be planted between November 1 and January 31, **as early as soil saturated conditions occur during that time period**.
5. It is good practice to scrap surface organic matter away from the hole location before digging. Clear a 3-3 foot area (or larger) to mineral soil and plant trees in the center.
6. Do not allow organic matter to fall into the hole. Organic matter can create air pockets that allow roots to dry.
7. Do not "J root" the seedlings. The roots of the planted seedling should appear as they do in the pictures on the previous page. If care is not taken, or the hole is not deep enough, "J roots" may result. These roots are folded back on themselves in the form of a "J". The roots should be straight and pointed down to prevent any additional stress during formation of the tap root. California *Quercus species* are noted for their ability to root deep in the first year of growth. Digging a hole that is deeper than the length of the root and pushing the root clear the bottom then pulling up until the root crown is even with the soil surface is a tried and tested method for achieving straight roots.
8. Tamp the soil down, while slightly pulling on the stem of the seedling at the root crown to remove air pockets and check the seedling is secure in the ground.
9. Mulching a 1-2 feet radius around the seedling slows incursion of competing plants and helps to retain moisture in the soil. (Optional)
10. Seedlings may require watering the first year, especially if there is no summer rain. One quart of water per month for the first summer should suffice.

1232 Lewis Oak Road
Gridley, CA 95948
(530) 846-7962
FAX (530) 846-7962

Planting oak seedlings is the most cost efficient method for restoration.



Seedling protection measures

Seedlings are subject to competition for water with other vegetation and physical damage by animals and insects. Grow tubes shall be used to protect seedlings. These tubes should be 1-2 feet longer than the shoot of the seedling and shall be supported by stakes, supported by the ground, and shorter than the tube above the ground.

The tubes should be flush with the ground to prevent easy access to voles and insects.

The stakes shall be straight, without the stabilizing head of metal fence posts, for easy removal once the tree is established. Stakes can be removed after 2-3 years.

Seedlings may require watering the first year, especially if there is no summer rain. One quart of water per month for the first summer should suffice.

About Planting Oak Trees from Five Gallon Containers

Oak trees grown in five gallon containers have seen two or more years in a nursery. The longer a tree grows in a nursery, the longer it takes to adapt to a natural environment. The soil medium of a nursery is nothing like clay common to the California lowlands. The nurturing controlled environment of a nursery does not prepare seedlings for adapting to the long dry hot summers of Butte County. The less time an oak seedling spends in a nursery, the better its chances for adapting to an outside environment.

Irrigation of planted oak woodlands is not recommended. While one-year-old seedlings may require some watering during the first summer, five gallon out-plants will require 2-5 summers of watering. When this is 50 trees spread over five acres, a substantial commitment to those trees is required. Without a drip system to irrigate the trees, much of the landowner's time will be spent returning to the nursery to purchase another oak in a five-gallon container.

Where to plant oaks

Oaks should be planted in openings at a minimum spacing of 8 feet between seedlings. Seedlings may be planted within the edge of the dripline of established oaks. A guide is -- no closer than ¾ of the dripline distance from the stem of an established tree. The seedling should be planted in the outer quarter of the dripline, away from the trunk.

Established oak seedlings less than 1 foot in height may be protected using grow tubes and counted for mitigation if they meet the above spacing criteria.

1232 Lewis Oak Road
Gridley, CA 95948
(530) 846-7962
FAX (530) 846-7962

Figure 2 - I like to use metal stakes to hold the tubes. As the tree grows it will hold the tube in place. Once tubes have served their purpose they can be used again.

California Public Resource Code 21083.4.

(a) For purposes of this section, "oak" means a native tree species in the genus Quercus, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.

(b) As part of the determination made pursuant to Section 21080.1, a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the following oak woodlands mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands:

(1) Conserve oak woodlands, through the use of conservation easements.

(2) (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.

(B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.

(C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project.

(D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.

(3) Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board. A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.

(4) Other mitigation measures developed by the county.

(c) Notwithstanding subdivision (d) of Section 1363 of the Fish and Game Code, a county may use a grant awarded pursuant to the Oak Woodlands Conservation Act (Article 3.5 (commencing with Section 1314.99) of Chapter 4 of Division 2 of the Fish and Game Code) to prepare an oak conservation element for a general plan, an oak protection ordinance, or an oak woodlands management plan, or amendments thereto, that meets the requirements of this section.

(d) The following are exempt from this section:

(1) Projects undertaken pursuant to an approved Natural Community Conservation Plan or approved subarea plan within an approved Natural Community Conservation Plan that includes oaks as a covered species or that conserves oak habitat through natural community conservation preserve designation and implementation and mitigation measures that are consistent with this section.

(2) Affordable housing projects for lower income households, as

defined pursuant to Section 50079.5 of the Health and Safety Code, that are located within an urbanized area, or within a sphere of influence as defined pursuant to Section 514.9976 of the Government Code.

(3) Conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes.

(4) Projects undertaken pursuant to Section 21080.5 of the Public Resources Code.

(e) (1) A lead agency that adopts, and a project that incorporates, one or more of the measures specified in this section to mitigate the significant effects to oaks and oak woodlands shall be deemed to be in compliance with this division only as it applies to effects on oaks and oak woodlands.

(2) The Legislature does not intend this section to modify requirements of this division, other than with regard to effects on oaks and oak woodlands.

(f) This section does not preclude the application of Section 21081 to a project.

(g) This section, and the regulations adopted pursuant to this section, shall not be construed as a limitation on the power of a public agency to comply with this division or any other provision of law.

Glossary

Abscission	The normal loss of leaves, fruit and flowers from a plant.
RPF	A person possessing the technical competence through experience and related training to provide for or supervise the management of trees or other woody plants in a landscape setting.
Apical Meristems	The most outer growth area (bud) at the end of a branch or shoot.
Branch Collar	The transition area between the trunk, or branch, and another branch.
Canopy	The live, foliage-bearing part of a tree.
Cavity	An opening that extends into a tree or shrub that is not a normal part of the species growth pattern.
Conk	The fruiting body of a fungus commonly denoting the fungal infection of woody tissue and dead decaying wood.

	Glossary (continued)
Clinometer	A hand-held device used to measure angles, relative to level in the vertical plane. It is used in combination with known horizontal distances to find the height of objects through triangulation.
Crown	The upper portions of a tree or shrub, including the main limbs, branches, and twigs.
dbh	Diameter at breast height (usually 4.5 vertical feet from the ground) in inches
Decay	Progressive deterioration of organic tissue.
Dripline	The area projected directly beneath a tree from the most outer edges of the canopy.
DSH	Diameter at standard height—Not all trees have a DSH, so other diameter measurements are taken. A DSH can be a DSH, but a DSH is not necessarily a DSH.
Epicormic branching	Branching from the outer layer of a plant
Grade change	Changes in slope or elevation
Included bark	Bark than has become grown over between two or more branches or trunks when they grew together.
Parent material	Geologic matter that, through weathering, is the source of soil.
Prune or pruning	Selective removal of woody plant parts of any size.
Raised Crown	The distance between the lowest limbs and the ground has been elevated by pruning lower limbs on the stem.
Root Collar	The transition area of a tree from a root to a stem or trunk
RPZ	Root protection zone radius = 1.5xdripline radius
Senescence	Aging
Succession	The order of vegetation to take each other's place over time.
VTA	Visual Tree Assessment is used by ISA Certified RPFs to evaluate condition of trees without using mechanical measures that require significantly more time and cost.
Weathering	The effect of climate, oxygen, relief, precipitation, and time on parent material that results in the formation of soil.

ANSI A.1.1. General Tree Pruning Guidelines

A.1.1.a All work shall be performed by qualified tree workers. All operations shall comply with ANSI A300-1995 (American National Standards Institute for Tree Care Operations) and ANSI Z1333-1994.

A.1.1.b The primary goal of tree pruning is to maintain a reasonably, natural canopy structure by selecting permanent branch hierarchy, removing dead, diseased, damaged, crossing or rubbing branches and by thinning out multiple and parallel branches. Pruning shall not alter the natural genetic character of the trees. Pruning for safety includes removing branches that may interfere with routine landscape maintenance, high voltage utility lines, lines of sight at corners of streets and driveways, and by lifting canopies to clear high profile vehicles.

A.1.1.c The contractor shall use clean, sharp tools that do not leave jagged, rough or torn bark around pruning cuts. Avoid stripping bark by removing branches and making three cuts: an undercut at least one 5th of the way through; then cut off the branch beyond the undercut. The final finish cut shall be made at its attachment just outside of the branch bark collar. Branches shall not be headed, topped, lion's tailed, or otherwise hyper extended. Branches shall be thinned to reduce wind-sail. Cut branches shall not be left hanging within the crown of a tree upon completion of pruning, at times when the tree must be left unattended, or at the end of each workday

HOWELL IT IS

Consulting Forester / Arborist

ISA Certified Arborist WE-6478A
California Registered Professional Forester #2500

www.howellitis.com

CERTIFIED ARBORIST ISA
WE-6478A

Addendum to
Oak Tree Mitigation Plan

LDI Land and Home, Inc.

Butte County APN 040-200-003

During the first weekend of April, Valley Oak (*Quercus lobata*) #398 broke about 15 feet up its main stem. The whole top of the tree fell and damaged valley oak #382. Upon inspection I found #398 to be infected with brown heart rot. It was hollow at the break. There were no visible conks that would have indicated presents of heart fungi prior to failure.

HOWELL IT IS

Consulting Forester / Arborist

ISA Certified Arborist WE-6478A
California Registered Professional Forester #2500
www.howellitis.com

WE-6478A

This is a natural tree failure not requiring mitigation for removal of trees #398 and #382. The failure is attributed to a combination of heart rot, wind and gravity. The rot was not diagnosed as to specific Genus or species.

ISA Certified ARBORIST WE-6478A
By:

Daniel R Howell

Dan Howell – RPF #2500