

REPORT TO THE SHASTA COUNTY PLANNING COMMISSION

<u>PROJECT IDENTIFICATION:</u>	<u>REGULAR ITEM</u>	MEETING DATE	AGENDA ITEM #
AMENDMENT 23-0002 APPLICANT/OWNER: MARK LEWIS & CHRISTINE NGOC THAO LEWIS EAST REDDING AREA		09/28/23	R2

RECOMMENDATION: That the Planning Commission:

1. Conduct a public hearing.
2. Close the public hearing.
3. Adopt a resolution to: a) find that the addendum to the previously adopted Mitigated Negative Declaration for Tract Map 1901 is adequate for Amendment 23-0002; b) adopt the recommended findings listed in Resolution 2023-018; and c) approve Amendment 23-0002, based on the recommended findings and subject to the conditions of approval set forth in Exhibit A to Resolution 2023-018.

SUMMARY: Mark Lewis and Christine Ngoc Thao Lewis have requested approval of Amendment 23-0002 to establish an additional building envelope and to modify the boundaries of an existing building envelope for Lot 7 of Tract Map 1901 (24RM54). The 5.26-acre project site is located on the west side of Twin Creek Lane approximately 0.20 miles north of the Old 44 Drive and Twin Creek Lane intersection (Assessor’s Parcel Number (APN) 111-280-007 as this APN is assigned for the purpose of the 2023 Regular Assessment Roll). Staff Planner: David Schlegel. Supervisor District: 3. Proposed CEQA Determination: Addendum to the previously adopted Mitigated Negative Declaration for Tract Map 1901.

BACKGROUND: General Plan & Zoning – The General Plan land use designation for the property is Rural Residential A (RA) and it is located in the Planned Development (PD) and Floodway (F-1) zone districts. The RA land use designation provides for a residential living environment in areas receiving no, or only some urban services. The purpose of the PD district is to provide flexibility in the application of zoning standards to proposed developments that incorporate an innovative mix of building types, land uses, open space or residential densities. This PD was enacted under Ordinance No. 378-1926 in concurrence with Tract Map 1901 which established building envelopes for nearly every lot, including Lot 7, in order to limit development of areas which may include sensitive habitat resources such as oak woodlands or riparian habitats adjacent to Stillwater Creek and Salmon Creek. The F-1 zone district closely follows Stillwater Creek and Salmon Creek and designates an area of special flood hazard with the purpose of protecting life and property and to minimize environmental damage to riparian and aquatic habitats. The PD zone allows all uses permitted in the Limited Agriculture District (A-1) zone district.

Access and Services – Access to the project site is from an existing improved encroachment at Twin Creeks Lane. The proposed building envelopes would utilize this encroachment for driveway access. Sewage disposal and water service are from an existing on-site wastewater treatment system and an existing on-site well, respectively. Police protection is provided by the Shasta County Sheriff’s Office and fire protection services are provided by the Shasta County Fire Department. Electric and gas service is provided by the Pacific Gas and Electric Company. Waste Management provides solid waste disposal service to the area.

Project Analysis – The project site (Lot 7) was created by Tract Map 1901 recorded on June 13, 2008. Prior to the map recording, portions of Lot 7 were developed with a ranch home and accessory buildings dating back to the first half of the 20th Century. Those structures have since been demolished and removed from the project site and an onsite wastewater treatment system and domestic well have been constructed on-site. The applicant has filed a building permit application to construct a one-family residence and photovoltaic solar system on the property that are proposed to be located outside of the approved building envelope for Lot 7. Staff reviewed the Environment

Initial Study and Mitigated Negative Declaration (IS/MND) adopted for the project in accordance with the California Environmental Quality Act (CEQA) and determined that the building envelopes and non-building non-disturbance areas shown on recorded Tract Map 1901 were established to avoid significant impacts on biological resources associated with Salmon Creek, including riparian habitat spanning the western property boundary of Lot 7, from the development of the parcels created by the subdivision. An archaeological resource of significance was discovered and identified archeological survey conducted for the IS/MND. In reviewing the previous archaeological survey, it was uncertain whether development of the proposed building envelopes for Lot 7 would have potential to significantly impact archeological resources. The applicant was instructed to provide additional biological review and archeological surveying to determine whether their proposal would require a subsequent Mitigated Negative declaration in accordance with State CEQA Guidelines section 15162. Both studies concluded that the proposed building envelope boundaries would have no impact to the biological or archaeological resources. All other areas of Tract Map 1901 and the associated environmental determination as part of the IS/MND are unaffected by the project. Additional development of Lot 7 would be subject to the conditions of approval for the project.

Environmental Determination – In accordance with State CEQA Guidelines section 15162, no subsequent IS/MND is required due to the fact that the previously adopted IS/MND does not need to be substantially revised due the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effect due to the proposal of substantial changes in the project, substantial changes with respect to the circumstances under which the project will be undertaken, and/or new information of substantial importance that was not known and could not have been known with the exercise of due diligence at the time. The proposed revised building envelopes are not a substantial change in the project. Only minor technical changes to the IS/MND are necessary, including the incorporation of the attached Cultural Resources prepared by AnthropologyRx, dated July 31, 2023, and Biological Resources Assessment, prepared by VESTRA Resources, Inc., dated July 26, 2023. This staff report and attachments shall serve as an addendum to the previously adopted IS/MND and there is no need to recirculate the IS/MND in accordance with State CEQA Guidelines section 15164.

ISSUES: No unusual issues have been identified with respect to the project. To date, no public comments have been received.

ALTERNATIVES: The following alternatives are available:

1. Modify the conditions of approval of the amending map.
2. Continue the public hearing to request additional information.
3. Deny the amending map. The Planning Commission would need to make specific findings that the amending map is inconsistent with the General Plan, Zoning Plan, or Subdivision Ordinance.

CONCLUSION: Based on the information supplied by the applicant and information available to Planning staff, staff is of the opinion that with the implementation of the recommended conditions of approval the tract map amendment is consistent with the applicable General Plan policies, zoning standards, and development standards.



PAUL A. HELLMAN

Director of Resource Management

Staff Author: David Schlegel, AICP, Senior Planner

AMND23-0002

09/28/2023

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DS/trh/District 3

Copies: (M) Mark Lewis and Christine Ngoc Thao Lewis, 3254 Lemurian Road, Redding, CA 96002
(M) Nathan Sellers, Shasta Land Surveying, PO Box 1021, Palo Cedro, CA 96073
Project File

Attachments: Draft Resolution No. 2023-018 and Conditions
Amending Map – Exhibit “A”
Tract Map 1901 Conditions of Approval – Exhibit “B”
Location Map
Project Aerial
General Plan Map
Zone District Map
Tract Map 1901 (Sheet 4 of 5)
Initial Study and Mitigated Negative Declaration - Tract Map 1901
Biological Resources Assessment, VESTRA Resources Inc., July 26, 2023
Cultural Resources Inventory, AnthropologyRx, July 31, 2023

RESOLUTION NO. 2023-018

A RESOLUTION OF THE SHASTA COUNTY PLANNING COMMISSION APPROVING AMENDMENT 23-0002 (LEWIS)

WHEREAS, the Planning Commission of the County of Shasta has considered Amendment 23-0002 for Mark Lewis & Christine Ngoc Thao Lewis, to establish an additional building envelope and to modify the boundaries of an existing building envelope in accordance with Title 15, Subdivisions, of the Shasta County Code for Lot 7 of Tract Map 1901 (24RM54) which is a 5.26-acre parcel located on the west side of Twin Creek Lane approximately 0.20 miles north of the Old 44 Drive and Twin Creek Lane intersection (Assessor's Parcel Number (APN) 111-280-007 as this APN is assigned for the purpose of the 2023 Regular Assessment Roll); and

WHEREAS, said amendment was referred to various affected public and private agencies, County departments, and referral agencies for review and comments; and

WHEREAS, the Shasta County Environmental Review Officer has reviewed the project and recommends a specific environmental finding; and

WHEREAS, a duly noticed public hearing was held on September 28, 2023, at which time all interested persons were given an opportunity to comment and those comments were considered by the Planning Commission; and

WHEREAS, the Shasta County Planning Commission has considered public comments and a report from the Planning Division.

NOW, THEREFORE, BE IT RESOLVED, that the Shasta County Planning Commission:

1. That the statements and facts set forth in the Recitals herein are true and correct.
2. Makes the following environmental review findings:
 - A. Based on substantial evidence in light of the whole of the record makes the following environmental findings:
 - i. There have been no substantial changes proposed in the project which would require major revisions to the Initial Study/Mitigated Negative Declaration (IS/MND) previously adopted for Tract Map 1901 in accordance with the California Environmental Quality Act (CEQA) due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
 - ii. There have been no substantial changes have occurred with respect to the circumstances under which the project is undertaken which will require major revisions to the IS/MND previously adopted for Tract Map 1901 due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
 - iii. There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the IS/MND for Tract Map 1901 was adopted.

- iv. Only minor technical changes to the IS/MND are necessary, including the incorporation of a Cultural Resources Report provided by VESTRA Resources, Inc., dated July 31, 2023, and Biological Resources Assessment, provided by VESTRA Resources, Inc. dated July 26, 2023.
 - v. The written Planning Commission staff report and attachments dated September 14, 2023, shall serve as an addendum to the previously adopted IS/MND for the project.
- 3. Makes the following amending map findings:
 - A. The project, together with the provisions for its design and improvements, is consistent with the Shasta County General Plan;
 - B. The project is consistent with the Shasta County Zoning Plan and the specific zone district in which the subject property is located;
 - C. The project meets all applicable requirements of the Shasta County Development Standards; and
 - D. No evidence has been presented which would require denial under the California Subdivision Map Act.
- 4. Makes the following findings consistent with Government Code Section 66472.1:
 - A. A recorded tract map may be amended in accordance with Shasta County Code section 15.12.090.
 - B. Recorded Tract Map 1901 shows restrictive building envelopes on the face of the final map.
 - C. The building envelopes shown on recorded Tract Map 1901 were established to avoid significant impacts on biological resources from the development of the parcels created by the subdivision.
 - D. The conditions of Tract Map 1901 restricts all future residential construction to the building envelopes designated on the final map.
 - E. The applicant has submitted information to show that there are changes in circumstances that make the boundary of the restrictive building envelope for Lot 7 of Tract Map 1901 no longer appropriate and that based on these changes in circumstances the applicant's proposed restrictive building envelope is appropriate.
 - F. The proposed amendment does not impose any additional burden on the fee owners of the real property.
 - G. The proposed amendment does not alter any right, title, or interest in the real property reflected on the recorded map impose any additional burden on the fee owners of the real property.
 - H. The amendment conforms to the California Government Code section 66474.

5. Approves Amendment 23-0002, subject to the conditions set forth in Attachment A to this resolution and incorporated herein.

DULY PASSED AND ADOPTED this 28th day of September 2023, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

RECUSE:

JAMES CHAPIN, Chair
Planning Commission
County of Shasta, State of California

ATTEST:

PAUL A. HELLMAN, Secretary
Planning Commission
County of Shasta, State of California

Attachment A to Resolution 2023-018

STATEMENT OF CONDITIONS

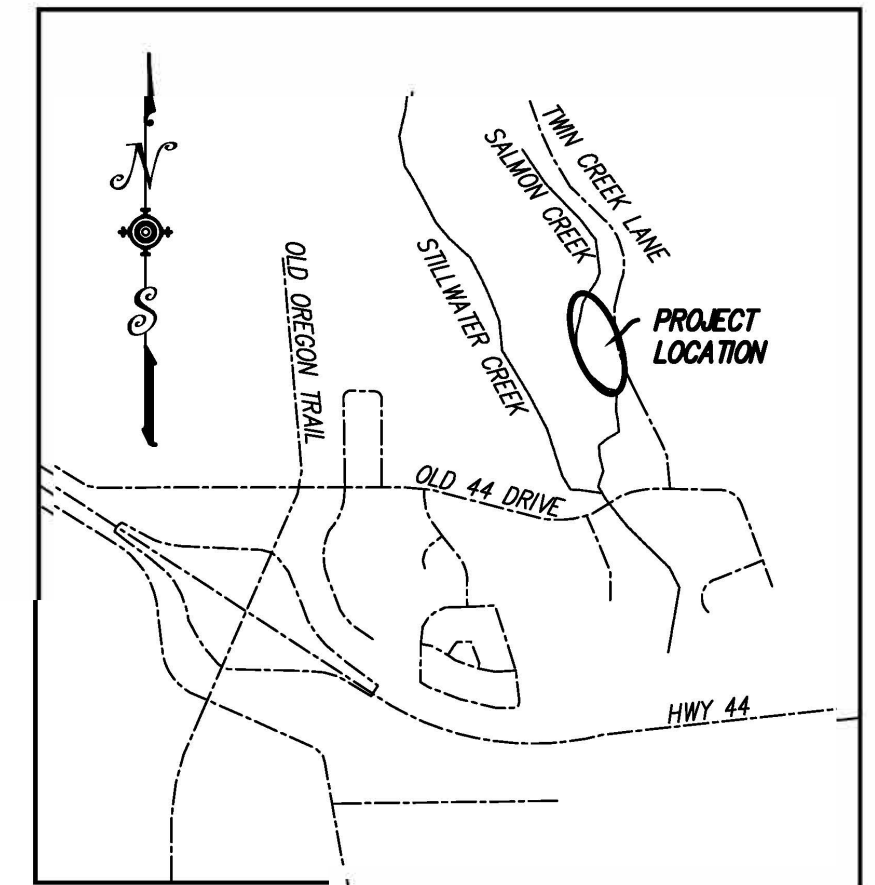
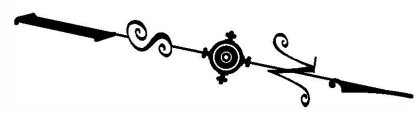
Project Identification
Amendment 23-0002

PLANNING:

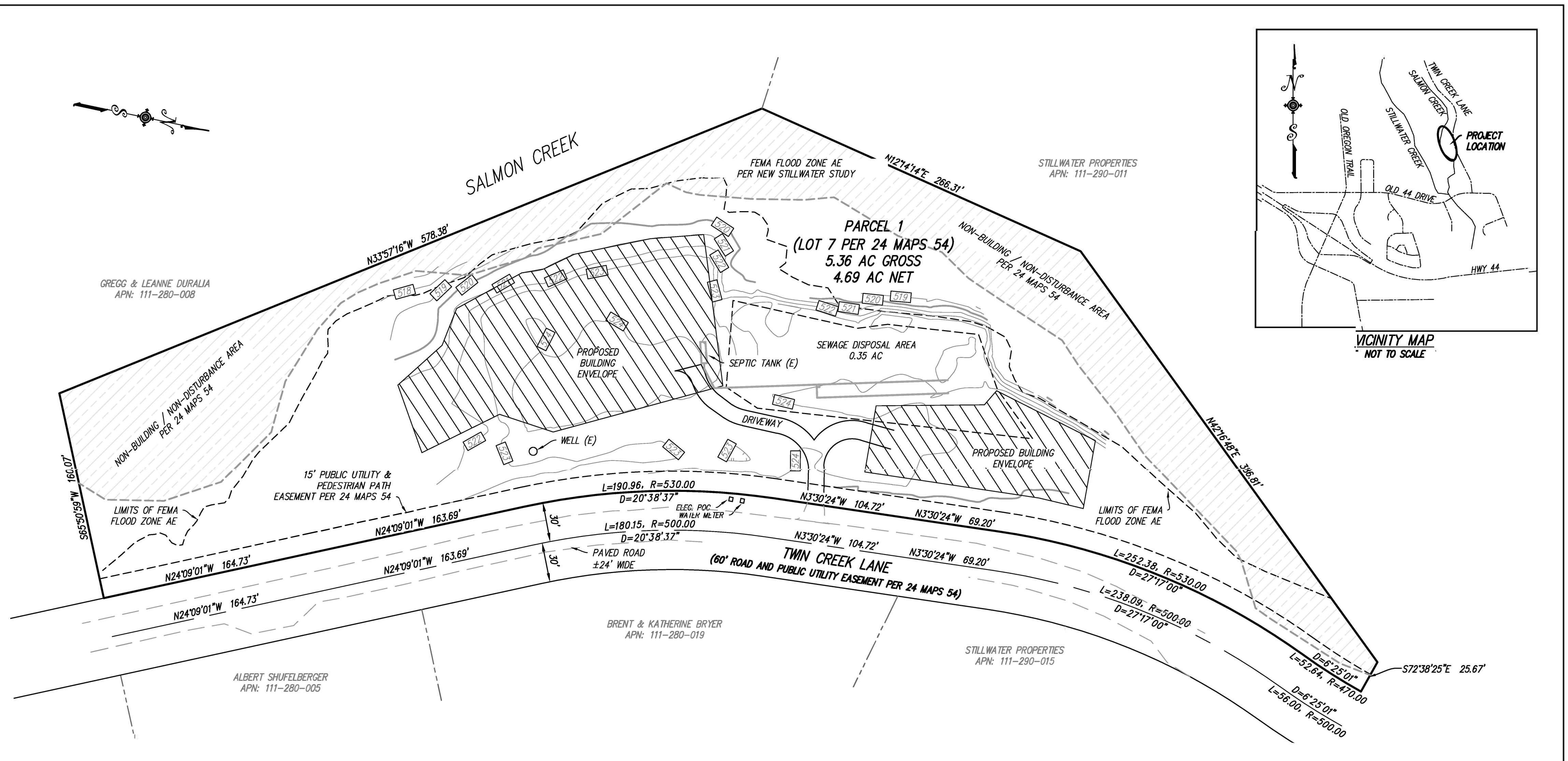
1. The requirements of all concerned governmental agencies having jurisdiction including, but not limited to, the issuance of appropriate permits, shall be met.
2. This approval is granted for the amendment of Lot 7 of Tract Map 1901 (24RM54) as shown on the amending map (Exhibit "A"). Any substantial revisions will require a revised amending map application and approval by the Planning Commission.
3. All applicable conditions of approval of Planning Commission Resolution No. 2005-090 for Tract Map 1901 remain in full force and effect with respect to the amending map (Exhibit "B").
4. The approval for this amending map will expire 24 months from the date of approval unless an extension of time is applied for by the applicant prior to the expiration date and granted by the approving agency in accordance with adopted ordinances and established policy.

ADVISORY NOTICES:

- A. The Board of Supervisors has determined that oak woodlands are valuable as wildlife habitat as well as for shade, aesthetic, and scenic values. If your property contains oak trees you are encouraged to consult the oak woodland management guidelines, Resolution No. 95-157, for guidance regarding use and protection of oak trees.
- B. Unless otherwise noted, all listed conditions must be completed prior to recordation of the amending map. The applicant is responsible for demonstrating that all conditions requiring completion prior to recordation of the amending map have been satisfied prior to submitting the amending map for recordation. Failure to demonstrate compliance with conditions may result in a delay in recordation of the amending map.



VICINITY MAP
NOT TO SCALE



AMENDING MAP – Exhibit A
Amendment 23-0002
(Lewis)
East Redding Area

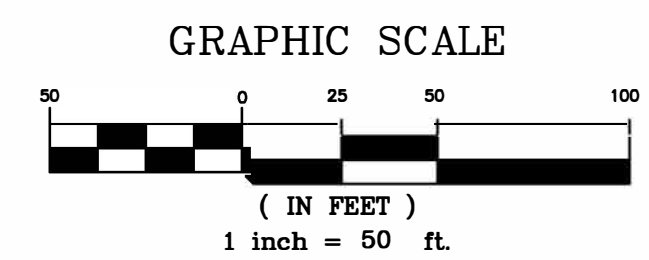
PARCEL INFORMATION
APN: 111-280-007
OWNERS: MARK & NGOC THAO CHRISTINE LEWIS
PHONE: (530) 949-1261
MAILING ADDRESS:
3254 LEMURIAN ROAD
REDDING, CA 96002

MAP PREPARED BY:
SHASTA LAND SURVEYING, INC.
A PROFESSIONAL CORPORATION
PHONE: (530) 515-4948
MAILING ADDRESS:
P.O. BOX 1021
PALO CEDRO, CA 96073



7/11/2023

AMENDING MAP
FOR
MARK & NGOC THAO CHRISTINE LEWIS
BEING A SINGLE PARCEL, PARCEL MAP OF LOT 7 PER THE
STILL WATER RANCH SUBDIVISION, UNIT 1 (24 MAPS 54) IN
THE SOUTHWEST 1/4 OF S.2, T.31N., R.4W., M.D.B.&M.
IN THE UNINCORPORATED TERRITORY OF THE
COUNTY OF SHASTA, STATE OF CALIFORNIA



UCB#

STATEMENT OF CONDITIONS

PROJECT IDENTIFICATION:
Tract Map 1901 - Eckelman & Scarborough

PLANNING:

1. The requirements of all concerned governmental agencies having jurisdiction including, but not limited to, the issuance of appropriate permits, shall be met.
2. This approval is granted for the land division as shown on the tentative map (Exhibit "A"). Any substantial revisions will require a revised map application and approval by the Planning Commission.
3. Road names shall be approved by the Planning Division prior to the recordation of the Final map. Road names must be submitted to the Graphics Section of the Planning Division at least 30 days prior to submitting the Final map for recordation.
4. A tree removal and grading plan shall be reviewed and approved by the Department of Resource Management, Planning Division prior to map recordation.
5. All parcels shall contain a minimum of 2 acres of gross area on the Final map. The average acreage for the 10 parcels shall equal a total of 50 gross acres on the Final Map.
6. This project is subject to all the rules and regulations of a Planned Development district the details of which are on file in the Planning Division. Note on the Final map attachment sheet.
7. Native vegetation in designated open space areas shall not be disturbed except as necessary for fire safety, equestrian and pedestrian trails, and recreation facilities. Note on the Final map attachment sheet.
8. Note on the Final map attachment sheet: All future residential construction is limited to the building envelope area designated on the final map.

Oak Woodland Conservation Plan:

9. *Prior to recording the final/parcel map, the applicant shall submit an Oak Woodland Conservation Plan (OWCP) to the Planning Director for review and approval. The applicant shall implement, or bond for, the approved OWCP prior to recording the final/parcel map. The OWCP shall identify, on the map, all native oaks to be removed which are greater than five inches in diameter at breast height. The OWCP shall include identification of on-site and/or off-site areas for conservation easements, specifications for replacement oak tree planting, or other mitigations deemed effective for the protection

PLANNING NOTES:

10. If, in the course of development, any archaeological, historical, or paleontological resources are uncovered, discovered, or otherwise detected or observed, construction activities in the affected area shall cease and a qualified archaeologist shall be contacted to review the site and advise the County of the site's significance. If the findings are deemed significant by the Environmental Review Officer, appropriate mitigations shall be required prior to any resumption of work on the project. Note on the Final Map attachment sheet.

GRADING/EROSION CONTROL:

11. *Prior to issuance of improvement plans or of any grading or land clearing permit or recordation of any Final map, a final erosion and sediment control plan by a certified erosion control specialist with accompanying monitoring plan shall be reviewed by the following agencies: Shasta County Planning Division and Department of Public Works, the California Department of Fish and Game. The Plan shall be prepared with the objective of achieving no net loss of soil (above an undisturbed natural, stable background state) from the site due to erosion. The plan shall incorporate the best available technology based on examples including but not limited to those set forth in the "County of Shasta Erosion and Sediment Control Standards Design Manual" and the publication entitled "Erosion and Sediment Control Study, Middle Creek Watershed". Upon detailed review and consultation with participating agencies the Planning Division may provide final approval of the plan. Said plan shall incorporate a wet weather closure plan.
12. All cleared and/or graded areas including all cuts and fills created by road construction shall have facilities for erosion and sediment control in place by September 15 of each year in accordance with the approved erosion and sediment control plan.
13. All drainage outlets into a natural drainage course are to incorporate water velocity attenuation devices to minimize erosion. The storm drain outlets are to be extended so as to discharge into a defined channel; the developer shall cause the dedication of any offsite easements necessary to accommodate the extension.
14. *The final erosion and sediment control plan shall include erosion and sediment control on all existing dirt roads, utility easements, trails (including those on the designated remainder parcels), sewage and disposal test areas and existing and altered drainages that are not part of the proposed road layout. Erosion and sediment control facilities shall be in place for these areas prior to September 15 of each year following project approval.
15. *All cleared and/or graded areas including all cuts and fills created by road construction shall have facilities for erosion and sediment control in place by September 15 of each year in accordance with the approved erosion and sediment control plan.

CULTURAL RESOURCES :

16. *The site identified as Miller #1 as shown on the archeology report shall be delineated and shown only as a non-buildable non-disturbance area. This area shall not be labeled as to its significance.

SOILS:

17. *Each building site requires a letter from a soils engineer that certifies that each site has soils that are suitable for residential construction.

Bella Vista Water District:

18. The applicant shall accept the design and improvements required by the Bella Vista Water district prior to completing the improvement plans. These improvements shall be in place prior to recording the Final Map.
19. The improvement plans for the Bella Vista Water District facilities shall be reviewed and approved by the operating entity prior to the installation of the facilities. Prior to the filing of the Final map, the applicant's project engineer shall provide as-built plans, a certificate of completion, and, if requested, an operations and maintenance manual to the operating entity.
20. Underground facilities that are to be placed under pavement or concrete shall be installed prior to the installation of the pavement or concrete.
21. Water supply main lines, appurtenant facilities, and service connections to each buildable parcel shall be installed in accordance with the construction and testing standards of the operating entity and the County's Fire Safety Standards and shall be approved by the operating entity and the responsible fire protection entity prior to the filing of the Final map.
22. Prior to the filing of the Final map, the applicant shall pay all inspection, capital improvement, connection, and other capacity charges or fees as established by the operating entity for the water facilities.
23. Ownership of all new water facilities and the related rights-of-way and easements shall be dedicated to the operating entity prior to the filing of the Final map.

Environmental Health Division:

24. Submit improvement plans for review/approval by E.H.D..
25. The proposed source of the water supply system to serve the project shall be from an approved public water system or from some other source approved for that purpose by the Director of Environmental Health.
26. The face of the Final map attachment sheets shall be annotated with this note: "An on-site sewage disposal system shall be located only within the disposal area indicated for all parcel(s) unless an alternate site is specifically approved by the Director of Environmental Health." The disposal area for said parcel(s) shall be delineated on the Final map.
27. *Any proposed grading which will create cuts or fills for roads, driveways, building sites, drainage ways or ditches on any of the proposed parcels shall be reviewed and approved by the Environmental Health Division as meeting County Sewage Disposal Standards requirements prior to the start of grading or issuance of any building or mobile home utility/installation permit(s). Note on the Final map attachment sheet.

Department of Fish & Game:

28. Notwithstanding the action taken by the Planning Commission on this project, the applicant will be required to pay notice of determination filing fees pursuant to Fish and Game Section 711.4 (AB 3158) to the Clerk of the Board within five (5) days following the end of any final appeal period, or in the event of a timely appeal, within five (5) days following any final decision on the appeal before the project approval will be considered final. Failure to pay the required fees will render this contingent project approval null and void. (See Government Code Section 21089(b).)

29. *Show the areas within 50 feet of the top of bank or from the edge of riparian habitat from creek(s) or stream(s). The open space along Salmon creek and Stillwater Creek are already designated as non-buildable and non-disturbance areas and should be shown on the Final map. Riparian vegetation shall not be removed or disturbed, except as allowed by prior approval of the Department of Fish and Game. Note on the Final map attachment sheet.
30. The Open Space designated area on the west side of Salmon Creek shall be designated as non-buildable and non-disturbance areas and should be shown on the Final map.
31. Any rare, threatened or endangered species found outside of the already established non-buildable and non-disturbance areas at the site as described in the biological report by Gallaway Consulting, Inc. January 2005 including; (Silky Cryptantha, Red Bluff dwarf rush, Slender orcutt grass, Henderson's bent grass) shall be protected with a 25 foot non-disturbance buffer.
32. The eight elderberry (*Sambucus* sp.) bushes found at the site shall have a 100 foot non-buildable and non-disturbance buffer areas. These shall be shown on the Final Map.

Air Quality Management Department:

33. All activities associated with a building site for residential, commercial, or industrial use shall be conducted in a manner to control fugitive dust emissions through the use of dust palliative agents or the use of water to mitigate offsite impacts. Note on the Final map attachment sheet.
34. Note on the Final map that all future solid fuel heating systems shall be with an E.P.A. certified Phase II system or a subsequent certified system.

A. STANDARD MITIGATION MEASURES APPLICABLE TO ALL PROJECTS.

PM10 Controls:

35. *Alternatives to open burning of vegetative material on the project site shall be used by the project applicant unless otherwise deemed infeasible by the AQMD. Among suitable alternatives are chipping, mulching, or conversion to biomass fuel.
36. *The applicant shall be responsible for ensuring that all adequate dust control measures are implemented in a timely and effective manner during all phases of project development and construction.
37. *All material excavated, stockpiled, or graded should be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering should occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.
38. *All areas (including unpaved roads) with vehicle traffic should be watered periodically or have dust palliatives applied for stabilization of dust emissions.
39. *All on-site vehicles should be limited to a speed of 15 miles per hour on unpaved roads.
40. *All land clearing, grading, earth moving or excavation activities on a project shall be suspended when winds are expected to exceed 20 miles per hour.
41. *All inactive portions of the development site should be seeded and watered until a suitable grass cover is established.

42. *The applicant shall be responsible for applying non-toxic soil stabilizers (according to manufacturer's specifications) to all inactive construction areas (previously graded areas which remain inactive for 96 hours) in accordance with the Shasta County Grading Ordinance.
43. *All trucks hauling dirt, sand, soil or other loose material should be covered or should maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of CVC Section 23114. This provision shall be enforced by local law enforcement agencies.
44. *All material transported off-site shall be either sufficiently watered or securely covered to prevent a public nuisance.
45. *During initial grading, earth moving, or site preparation, the project shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the project site from the adjacent paved road(s).
46. *Paved streets adjacent to the development site should be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of activities on the development site.
47. *Adjacent paved streets shall be swept (recommend water sweeper with reclaimed water) at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the project site.
48. *Wheel washers shall be installed where project vehicles and/or equipment enter and/or exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip.

Department of Public Works:

49. Prior to recording the Final Map, offer for dedication to the public the following rights-of-way width for public use and construct the following roads to the current Shasta County standards, as described below:
 - A. Road Name: Saddleback Court
 Construction Limits: Old 44 Drive to Parcel 5
 Required Standard: Major Local
 Right-of-way Width: 60-feet Paving Width: 24-feet
 - B. Road Name: Flaglot Driveway to Parcels 6 and 7
 Construction Limits: Saddleback Court through stem of parcels
 Required Standard: Double Flaglot
 Right-of-way Width: 60-feet Paving Width: 14-feet
50. Prior to recording the Final Map, offer for dedication to the public the following rights-of-way as a future road and public utility easement, as described below:
 - A. Road Name: Saddleback Court
 Limits: Proposed end of Saddleback Court to Remainder Parcel
 Right-of-Way Width: 60-feet

51. Prior to recording the Final Map, offer for dedication to the public the following rights-of-way for public use:
 - A. Street Name: Old 44 Drive Co. Rd. No.: 3H05
Limits: Project Frontage
Minimum Width: 84 ft., being 42 ft. from the existing centerline of road.
52. Prior to recording the Final Map, construct Shasta County Development Standard cul-de-sacs at the following locations:
 - A. Saddleback Court at Parcel 5
53. Submit improvement plans for roads, grading, drainage and other public improvements to the Department of Public Works. The plans shall be prepared by a Registered Civil Engineer and must be approved by the Department of Public Works, Environmental Health Division, and other concerned agencies prior to any construction. A plan checking fee will be required at the time the improvement plans are first submitted.
54. Improvement plans shall depict locations for centralized mail delivery units. The locations shall be approved by the Postal Service and the Department of Public Works. Units shall be installed prior to filing the Final Map. The Postal Service must also sign the improvement plans.
55. Prior to recording the Final Map, obtain an encroachment permit from the Shasta County Department of Public Works, Development Services Division and construct the Type "D" road connection as described by the encroachment permit at the following locations:
 - A. Saddleback Court at Old 44 Drive, with left turn lane.
56. Install main distribution lines as required by Utilities to service all lots. Where underground utilities are located within the required right-of-way, such utilities shall be installed, or conduits shall be installed to allow for future installation, prior to placing pavement or concrete. These installations shall be approved by the utility company prior to placing pavement or concrete.
57. Prior to recording the Final Map, install all street signs, traffic delineation devices, warning and regulatory signs, guardrail, barricades, and other similar devices where required by the Department of Public Works. Signing shall be in conformance with the Department of Public Works standards and the current State of California Uniform Sign Chart. Installation of traffic devices shall be subject to review and modification after construction.
58. Prior to recording the Final Map, obtain an encroachment permit on Old 44 Drive, Co. Rd. No. 3H05, from the Shasta County Department of Public Works, Development Services Division and construct 4-foot gravel shoulders along project frontage, along with related drainage improvements, and any required relocation of utilities.
59. Prior to recording the Final Map, obtain street name approval and forms for required signs from the Planning Division, then contact Development Services for process in ordering, 1 double plate, street sign at the following locations:
 - A. Saddleback Court at Old 44 Drive
Signs must meet the Board of Supervisors approved standard. Street signs shall be paid for and a receipt submitted to the Development Services Division.

60. Prior to recording the Final Map, offer for dedication to the public the access rights along Old 44 Drive.
61. Label all non-county maintained roads on the Final Map sheet as public roads.
62. Prior to recording the Final Map, place on the certificate sheet: The date of the soils report, the name of the engineer who made the soils report, that a soils report has been prepared and is on file with the Shasta County Department of Public Works, and a statement that the report does/does not indicate the presence of critically expansive soils and does/does not recommend corrective action.
63. The following flood hazard information shall appear on the Final Map:
 - A. The limits of the area subject to inundation during the 100-year flood.
 - B. The elevation of each building pad within the 100-year flood shall be placed on the Final Map.
 - C. The following note shall appear on the Final Map attachment sheet:

"No land clearing or alteration of the riparian habitat may take place within a FEMA or State Reclamation Board floodway without prior approval of the California Department of Fish and Game and the Department of Public Works. "
64. The Applicant shall supply necessary data and obtain verification from the Department of Public Works, prior to building permit issuance, that the proposed new or reconstructed dwellings will be constructed in a manner that meets applicable flood limitation criteria.
65. Prior to the recording of the Final Map, the developer shall form a maintenance entity in the form of a permanent road division for the maintenance of the roads for which an offer of dedication is required and shown on the Final Map. Note that the forming and activating of a permanent road division requires a minimum 45-day public notice period and must be completed prior to recommending approval of the Final Map.
66. Label all permanent road division maintained roads on the Final Map as public roads, and place the following note on the Final Map:

"The roads within this subdivision are not within the County's maintained mileage. A permanent road division has been formed for maintenance of the roads."

Regional Water Quality Control Board:

67. A Construction Storm Water Permit will be required by the State Water Resources Control Board if the project includes a disturbance area(s) of one or more acres.

Shasta County Fire Department / CDF:

68. Dead-end road(s) shall be limited to 1,000 feet in length unless provided with a CDF/SCFD approved through road system as per Section 6.11 of the Fire Safety Standards.
69. Roads shall be required to meet the requirements of section 6.12 of the Fire Safety Standards prior to recording map. Improvement plans shall be submitted to the CDF/SCFD for review and approval prior to any grading or construction.
70. Cul-de-sacs in subdivisions shall be terminated by a turnaround constructed in accordance with the Fire Safety Standards

71. Bridges and culverts shall meet the design requirements as specified in the Fire Safety Standards and shall be capable of supporting a 40,000-pound vehicle load.
72. For existing residences on the parcels being created, driveways, driveway turnarounds, and address markers shall be brought into compliance with Sections 6.13 and 6.21 of the Fire Safety Standards prior to recording the map.
73. The applicant shall provide fire hydrants as specified by the Bella Vista Water District and in accordance with the Fire Safety Standards. The fire hydrants shall be installed and in service or bonded for prior to recording the map. Improvement plans shall be submitted to the Shasta County Fire Department and to the Bella Vista Water District for review and approval prior to trenching or construction.
74. The applicant shall dispose of any vegetation cleared for construction and/or land development purposes prior to recording the map. Disposal shall be in accordance with Air Quality Management District regulations and State or local Fire Department burning permit regulations.
75. The Shasta County Fire Department shall sign the improvement plans for this project prior to submitting plans to the Department of Public Works. Improvement plans will be reviewed for compliance with the Fire Safety Standards and other project specific conditions.
76. The following shall be placed as notes on the map attachment sheet:
 - A. Advisory note: The land division is located in State Responsibility Area designated as a "VERY HIGH" Fire Hazard Severity Zone under Section 4203 of the Public Resources Code of the State of California
 - B. Driveways, turnarounds, and street address markers shall meet the specifications of the Fire Safety Standards prior to the final inspection by the Shasta County Building Division for any new structures constructed on parcel.
 - C. Buildings and accessory buildings constructed on parcels one acre or larger in size shall be setback a minimum of thirty (30) feet from all property lines and road easements.
 - D. Untreated wood shake or shingle roofing is prohibited. Roofing shall have a Class A or Class B classification as specified in Section 1503 of the Uniform Building Code.
 - E. In accordance with Public Resources Code Section 4291, the owner, builder, and/or applicant for a building permit, shall provide "Defensible Space". They shall maintain around and adjacent to any such building or structure a firebreak by removing all brush, flammable vegetation, or combustible growth for a distance of not less than 100 feet on each side thereof or to the property line, whichever is nearer. This does not apply to single species of trees, ornamental shrubbery, or ground cover, if they do not form a means of rapidly transmitting fire from the native growth to any building or structure. Grass located more than 30 feet from such building or structure and less than 18 inches in height may be maintained to stabilize the soil.

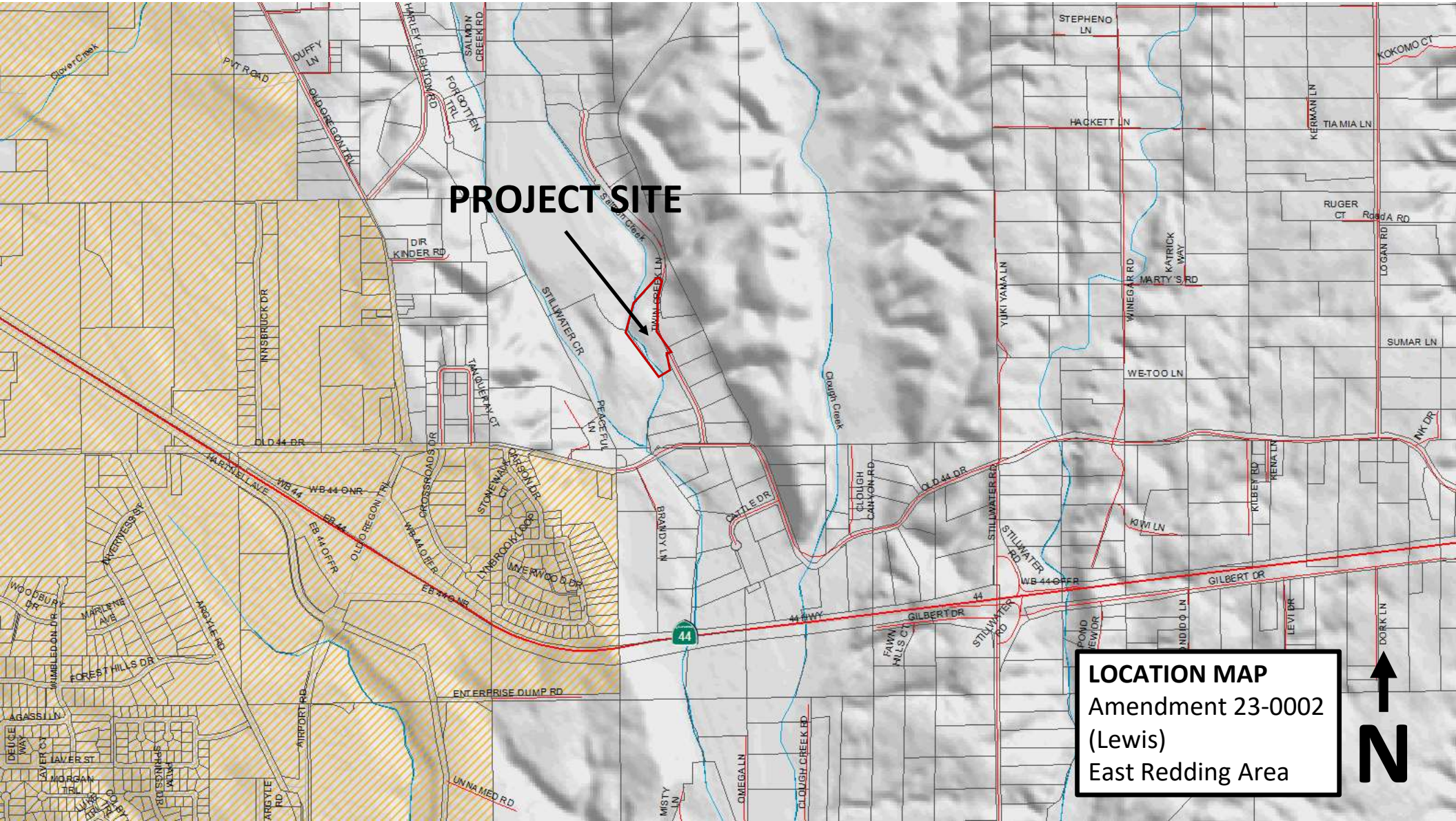
ADVISORY NOTICES:

- A. The approval for this tentative map will expire 24 months from the date of approval

unless an extension of time is applied for by the applicant and granted by the approving agency in accordance with adopted ordinances and established policy.

- B. The Board of Supervisors has determined that oak woodlands are valuable as wildlife habitat as well as for shade, aesthetic and scenic values. If your property contains oak trees you are encouraged to consult the oak woodland management guidelines, Resolution No. 95-157, for guidance regarding use and protection of oak trees.
- C. Unless otherwise noted, all listed conditions must be completed prior to recordation of the Final map. The applicant is responsible for demonstrating that all conditions requiring completion prior to recordation of the Final map have been satisfied prior to submitting the map for recordation. Failure to demonstrate compliance with conditions may result in a delay in recordation of the map.
- D. This project will be subject to the Shasta County Traffic fee program for the Cottonwood impact area.

** Denotes mitigation measures of the Mitigated Negative Declaration.



PROJECT SITE

LOCATION MAP
Amendment 23-0002
(Lewis)
East Redding Area





**PROJECT
SITE**

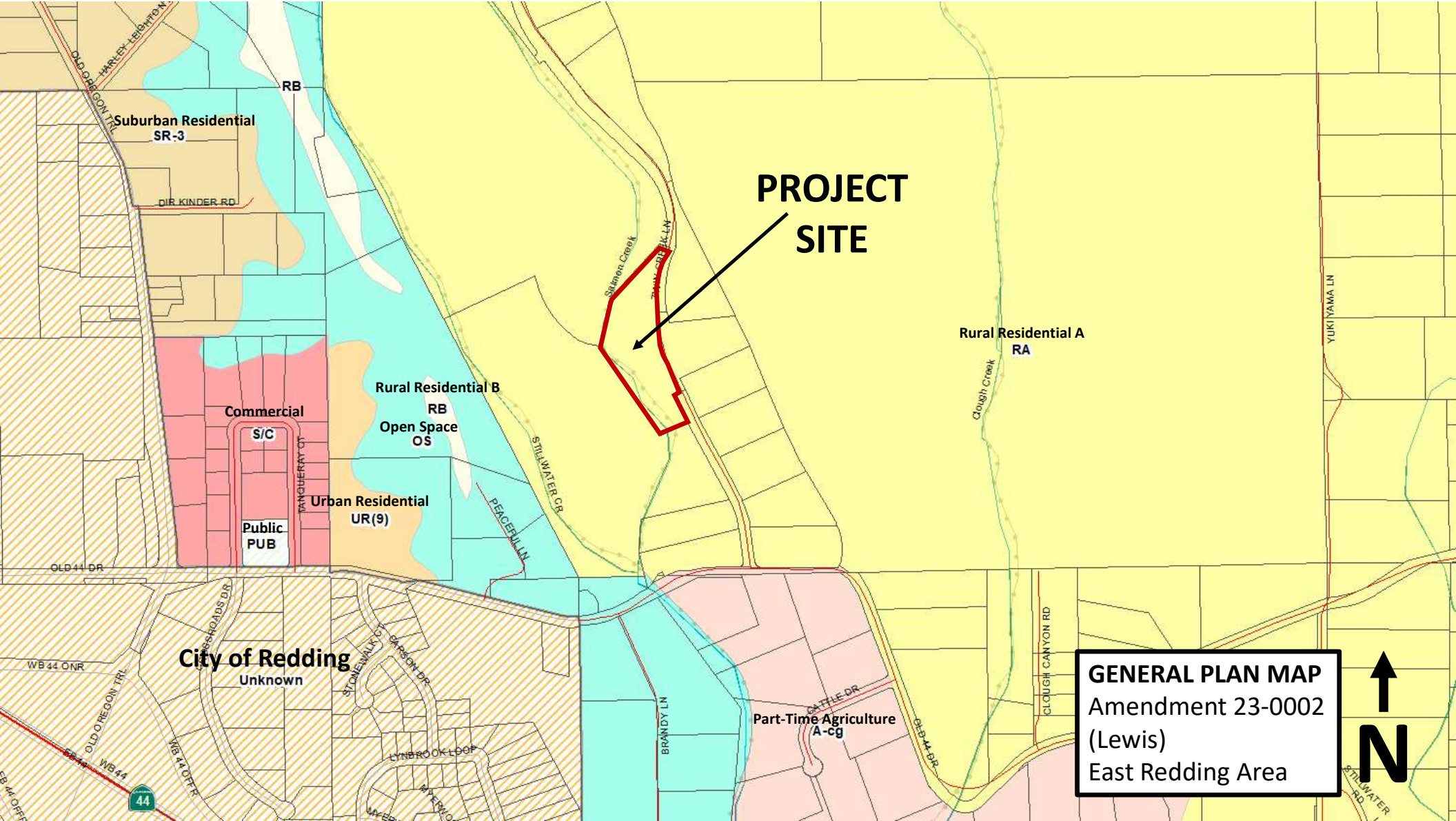
SALMON CREEK

MAIN CREEK LN

5TH WATER DR

PROJECT AERIAL
Amendment 23-0002
(Lewis)
East Redding Area

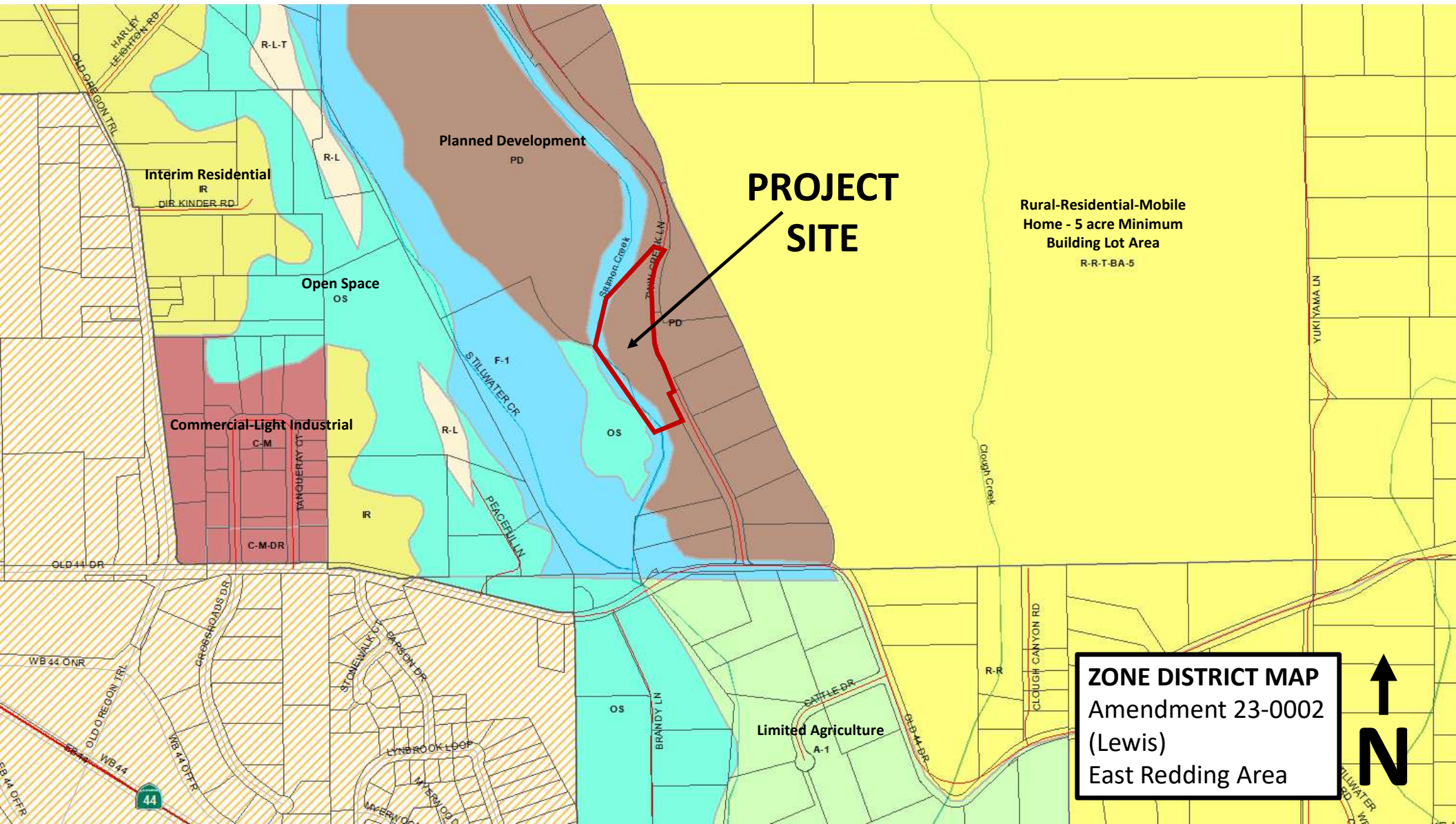




**PROJECT
SITE**

**GENERAL PLAN MAP
Amendment 23-0002
(Lewis)
East Redding Area**



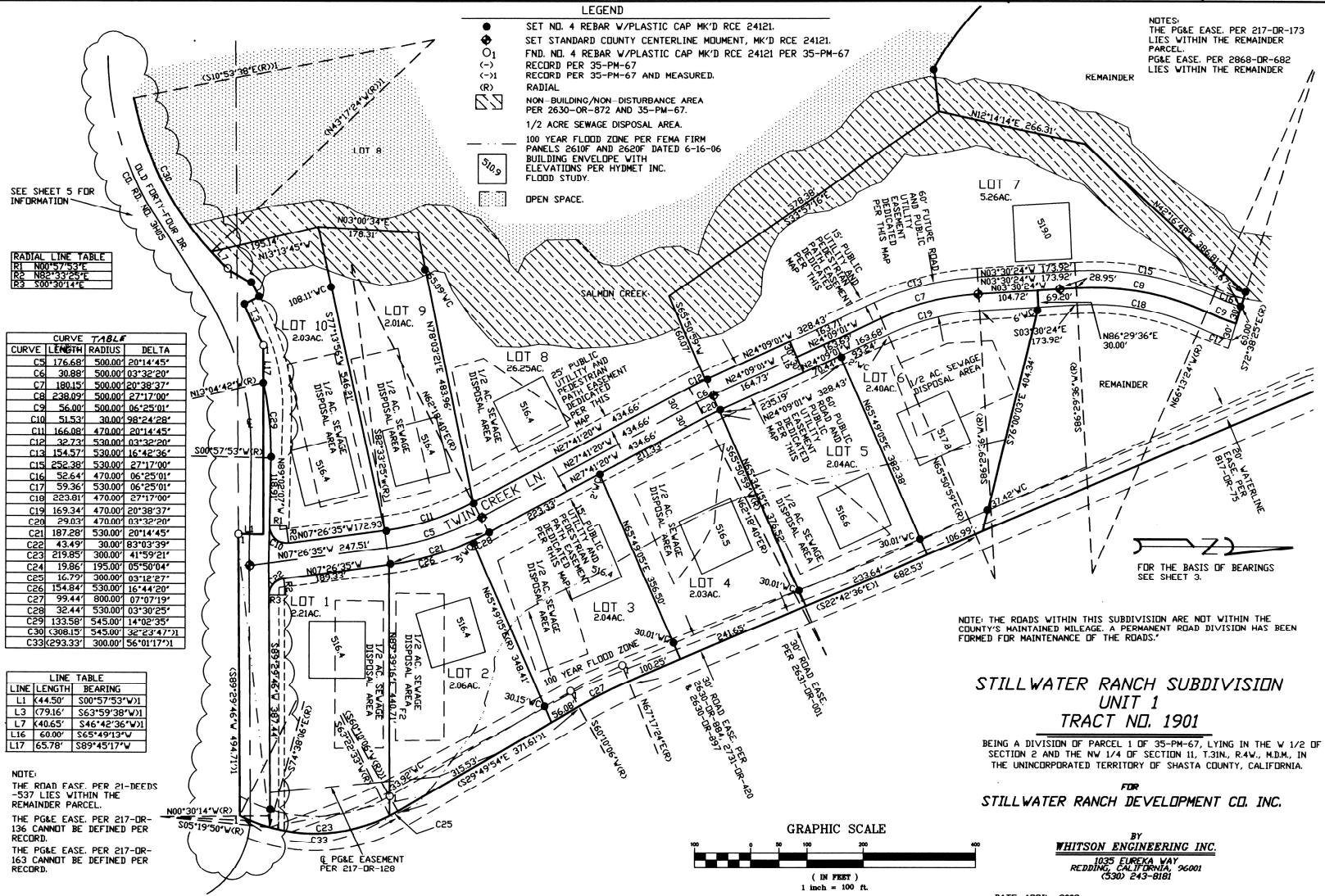


**PROJECT
SITE**

Rural-Residential-Mobile
Home - 5 acre Minimum
Building Lot Area
R-R-T-BA-5

**ZONE DISTRICT MAP
Amendment 23-0002
(Lewis)
East Redding Area**





NOTES:
 THE PG&E EASE. PER 217-DR-173 LIES WITHIN THE REMAINDER PARCEL
 THE PG&E EASE. PER 2868-DR-682 LIES WITHIN THE REMAINDER

**STILLWATER RANCH SUBDIVISION
 UNIT 1
 TRACT NO. 1901**

BEING A DIVISION OF PARCEL 1 OF 35-PM-67, LYING IN THE W 1/2 OF SECTION 2 AND THE NW 1/4 OF SECTION 11, T.31N., R.4W., M.D.M., IN THE UNINCORPORATED TERRITORY OF SHASTA COUNTY, CALIFORNIA.

FOR
STILLWATER RANCH DEVELOPMENT CO. INC.

BY
WHITSON ENGINEERING INC.
 1035 EUREKA WAY
 REDDING, CALIFORNIA, 96001
 (530) 243-8181

DATE: APRIL, 2008
 SCALE: 1"=100'

SHEET 4 OF 5

**TRACT MAP 1901 (Sheet 4 of 5)
 Amendment 23-0002
 (Lewis)
 East Redding Area**

ENVIRONMENTAL INITIAL STUDY

Tract 1901 and Zone Amendment 04-021
Stillwater Ranch Subdivision
Eckelman & Scarbrough, Inc.

June 24, 2005

INITIAL STUDY CHECKLIST References and Documentation

Prepared by
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT
PLANNING DIVISION
1855 Placer Street, Suite 103
Redding, California 96001

Tract 1901 and Zone Amendment 04-021 - Stillwater Ranch Subdivision - Eckelman & Scarbrough

**SHASTA COUNTY
ENVIRONMENTAL CHECKLIST FORM
INITIAL STUDY**

1. **Project Title:** Tract 1901 and Zone Amendment 04-021 - Stillwater Ranch Subdivision
2. **Lead agency name and address:**

Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001-1759
3. **Contact Person and Phone Number:** Zach Bonnin, Senior Planner (530) 225-5532
4. **Project Location:** East of Redding on Old 44 one-half mile north of State Route 44 Drive east of its intersection with Old Oregon Trail, Shasta County, CA, Township 31 North, Range 4 West, Section 2, within the Enterprise 7.5 minute USGS Quadrangle.
5. **Applicant Name and Address:** Eckelman and Scarbrough PO Box 4930, Redding, CA 96049
6. **General Plan Designation:** Rural Residential "A"
7. **Zoning:** Rural Residential combined with Mobile Homes with a 5 acre minimum (RRT-BA5) and Limited Agriculture (A-1-T)
8. **Description of Project:** The project includes a 10-parcel subdivision and a rezone from Rural Residential combined parcel. The project was revised and that portion of the project has since been removed. Future with Mobile Homes with a 5-acre minimum (RRT-BA5) and Limited Agriculture (A-1-T) to the Rural Residential with a Building Site Minimum (RR-BSM) zone district. The entire parcel is approximately 158 acres and is on both sides of Salmon Creek. Seven of the ten parcels are located within the 100-year flood plain. The remainder parcel is approximately 131 acres and is located on the west side of Salmon Creek. Further development was originally proposed to occur on the remainder development on the remainder portion of the property is subject to a feasibility study and further review.

At this point, it is assumed that the homes will utilize individual wells and septic systems. Construction will include access and internal roadways, easements for power utilities, and non-building, non-disturbance zones to protect Stillwater and Salmon Creeks, which run generally north to south through the project site. The creeks converge at the southernmost portion of the west part of the site. One of the internal roadways will cross Salmon Creek. A 33 foot road easement is indicated on the site map running east-west through the upper third of the project site. **Figure 1** is a site location map. **Figure 2** depicts the current site plan. Please note that the project was formerly called Miller Ranch.

The project is located in what is referred to as the South Central Region in the Shasta County General Plan.

9. **Surrounding Land Uses and Setting:** The project is located at the confluence of Salmon and Stillwater Creeks. Located at the confluence is a relatively new bridge on Old Highway 44 over Stillwater Creek at the southern end of this project. The soils are typical of floodplains and are a loamy mix that has been used for agricultural purposes in the past. There is currently one residence on the property with its associated accessory structures.

Old 44 Drive forms the southern boundary, and rural residential development, light industrial uses, and undeveloped properties to the west and north of the project site. To the east of the site lies undeveloped oak woodlands, and the land slopes steeply upward from the eastern boundary.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):** Department of Fish and Game, Army Corps of Engineers

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.

<input checked="" type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Agricultural Resources	<input checked="" type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Geology / Soils
<input checked="" type="checkbox"/> Hazards & Hazardous Materials	<input checked="" type="checkbox"/> Hydrology / Water Quality	<input checked="" type="checkbox"/> Land Use / Planning
<input checked="" type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Population / Housing
<input checked="" type="checkbox"/> Public Services	<input checked="" type="checkbox"/> Recreation	<input checked="" type="checkbox"/> Transportation / Traffic
<input checked="" type="checkbox"/> Utilities / Service Systems	<input checked="" type="checkbox"/> Mandatory Findings of Significance	

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the 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.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Zach Bonnin, Senior Planner at (530) 225-5532.

Zach Bonnin
Zach Bonnin, Senior Planner

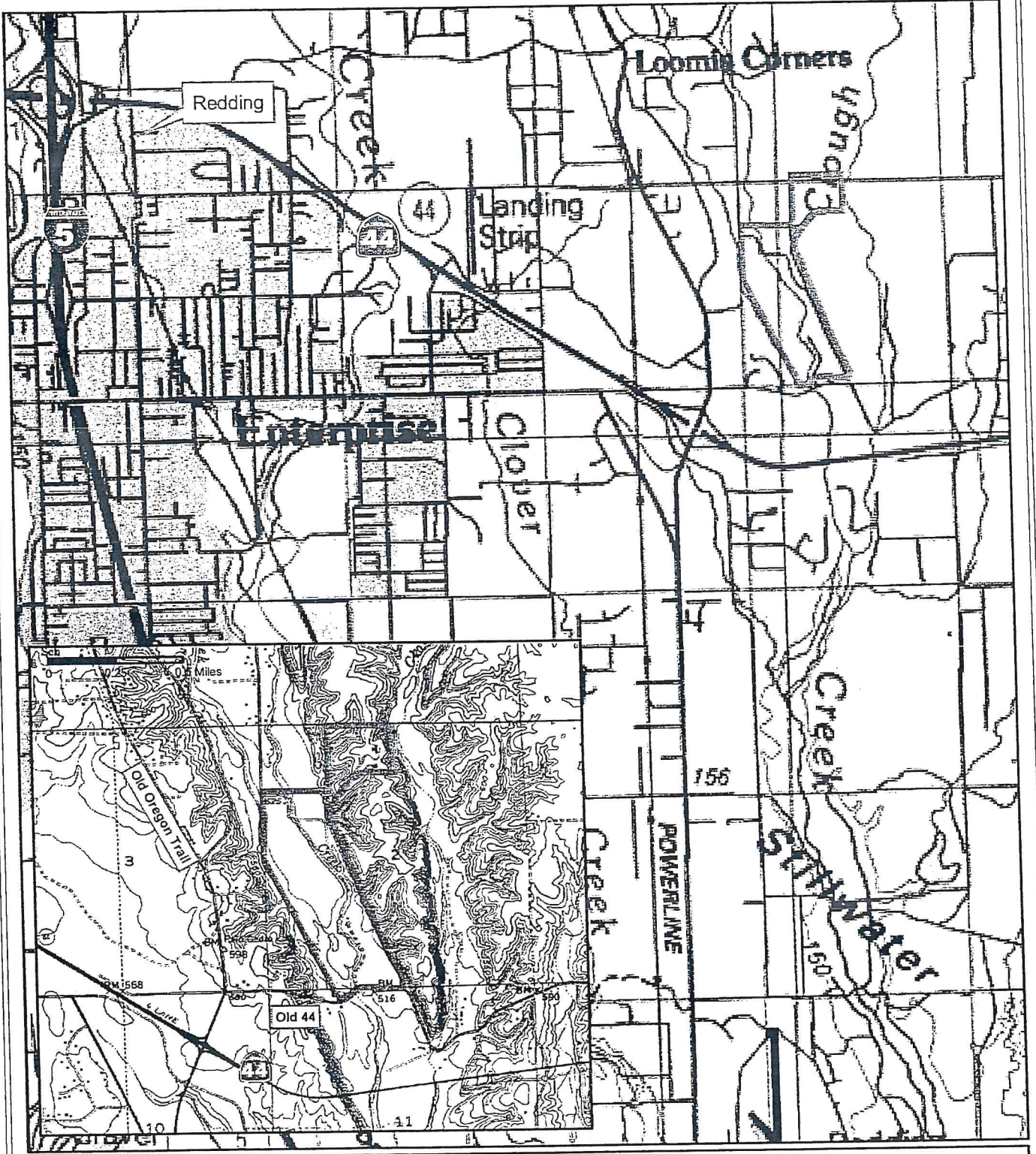
6-23-05
Date

Richard Bonnin/For:
Russ Mull, R.E.H.S., A.I.C.P.
Director of Resource Management

6-23-05
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 parenthesis following each question. A "No Impact" answer is adequately supported if all the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more, "Potentially Significant Impact" entries when the determination is made, an EIR is required.
- 4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVIII, "Earlier Analyses," may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures: For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify the following:
 - 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 significant.



 Project Site

 0 0.25 0.5 Miles



 Gallaway Consulting Inc.
7 Sierra Nevada Court, Chico, CA 95926

Figure 1.

Issues:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS -- 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) Substantially degrade the existing visual character or quality of the site and its surroundings?			●	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			●	

DISCUSSION

I. a. **No Impact.** The project site is not considered a scenic vista. It is located in the lower foothills east of Redding, CA. and has traditionally been used for agriculture.

I. b. **No Impact.** The project site is not located along a scenic vista, nor does it contain scenic features.

I. c. **Less than Significant.** The project site is situated between existing development and the foothills east of Redding. Agricultural use over the years has disturbed the existing vegetation, except for riparian vegetation along the banks of the creeks, which will be retained as a part of the non-build, non-development portion of the project.

I. d. **Less than Significant.** Construction of the proposed project would result in the introduction of new sources of nighttime light. New light sources include street lights, along with light generated by the headlights of vehicles. New light sources typically result in a greater overall level of light at night, thus reducing night sky visibility and affecting the general character of the existing community. Stationary light sources have the potential to adversely affect adjacent properties through a "spillover" effect. However, based on the current site plan, internal roads are restricted to within the center of the development, and the lots are quite large in comparison to surrounding residences. In addition, existing residences in the general project vicinity are removed from the project site at enough distance that security and/or outside lighting on the lots will not affect them.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
<p>II. AGRICULTURE 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) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:</p>				
<p>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</p>			●	
<p>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</p>			●	
<p>c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?</p>			●	
<p>DISCUSSION:</p> <p>II. a. Less than Significant. Although the site has been traditionally used for agriculture, the site is not considered Prime or Unique Farmland or Farmland of Statewide importance. In fact, the site has been dry-farmed as soils are marginal for agricultural uses.</p> <p>II. b. Less than Significant. Portions of the site are zoned A1- 5, which according to Chapter 17.04 of the Shasta County Zoning Code allows home occupation on parcels 5 acres or larger with a zoning permit. Other portions are zoned BA-5, which allows building on a 5-acre minimum parcel. The zoning code indicates that actual lot sizes will be determined by county development standards, including wastewater disposal capabilities and water availability, which could result in parcels larger than five acres.</p> <p>II. c. Less than Significant. The project will result in the conversion of land that has historically been used for agriculture to large lot home parcels. However, as mentioned above, the land is marginal for farming and portions of it are fallowed annually due to substandard soils for agricultural use.</p>				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				●
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		●		
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		●		
d) Expose sensitive receptors to substantial pollutant concentrations?				●
e) Create objectionable odors affecting a substantial number of people?			●	
<p>DISCUSSION:</p> <p>III. a. No Impact: This project will not conflict with or obstruct implementation of any air quality plans in Shasta County.</p> <p>III. b. Less than Significant with Mitigation Incorporation. Implementation of the proposed project would result in the generation of short-term construction-related air pollutant emissions. Exhaust emissions from construction equipment would contain reactive organic gases (ROG), nitrogen oxides (NOx), CO and PM10. PM10 emissions would also result from windblown dust (fugitive dust) generated during grading activities.</p> <p>Construction-related impacts are generally short-term in duration, but may still cause adverse air quality impacts. Fine particulate matter (PM10) is the pollutant of greatest concern with respect to construction activities.</p> <p>PM10 emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle and construction equipment exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM10. Such emissions could cause adverse health effects as well as nuisance concerns, if not properly controlled. Construction work associated with the project will include earthwork, grading, and fill. These activities will generate dust. The county is currently in non-attainment status for PM10, which includes dust. Although</p>				

construction impacts are temporary and would cease once construction is completed, they nevertheless would have a potentially significant impact on air quality while such activities occur. The CEQA document prepared for the project will recommend mitigation measures to reduce impacts to air quality to a less than significant level.

III. c. **Less than Significant with Mitigation Incorporation.** Construction activities will generate a temporary increase in PM10 emissions, however mitigation measures recommended in the CEQA document would reduce potential emissions, and emissions would cease once construction work is completed.

III. d. **No Impact.** The project site is not located near sensitive receptors. Sensitive receptors are not expected to reside within the project site. However, according to the Shasta County Air Quality Management District (AQMD), residents in the general area have made occasional complaints about objectionable odors from an unidentified light industrial use. There are several light industrial uses in the general project vicinity, i.e., a body shop, an excavation business, and a lumber yard. The AQMD has not been able to identify the source of the odor.

III. e. **Less than Significant.** No new odor-producing activities are proposed, other than that associated with equipment exhaust during construction activities. Diesel fuel fumes may be noticeable in the vicinity of the site; however, diesel fumes will be a short-term effect. All equipment will comply with local and state emissions standards.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	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 Game or 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, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?		●		
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		●		
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?				●

DISCUSSION:

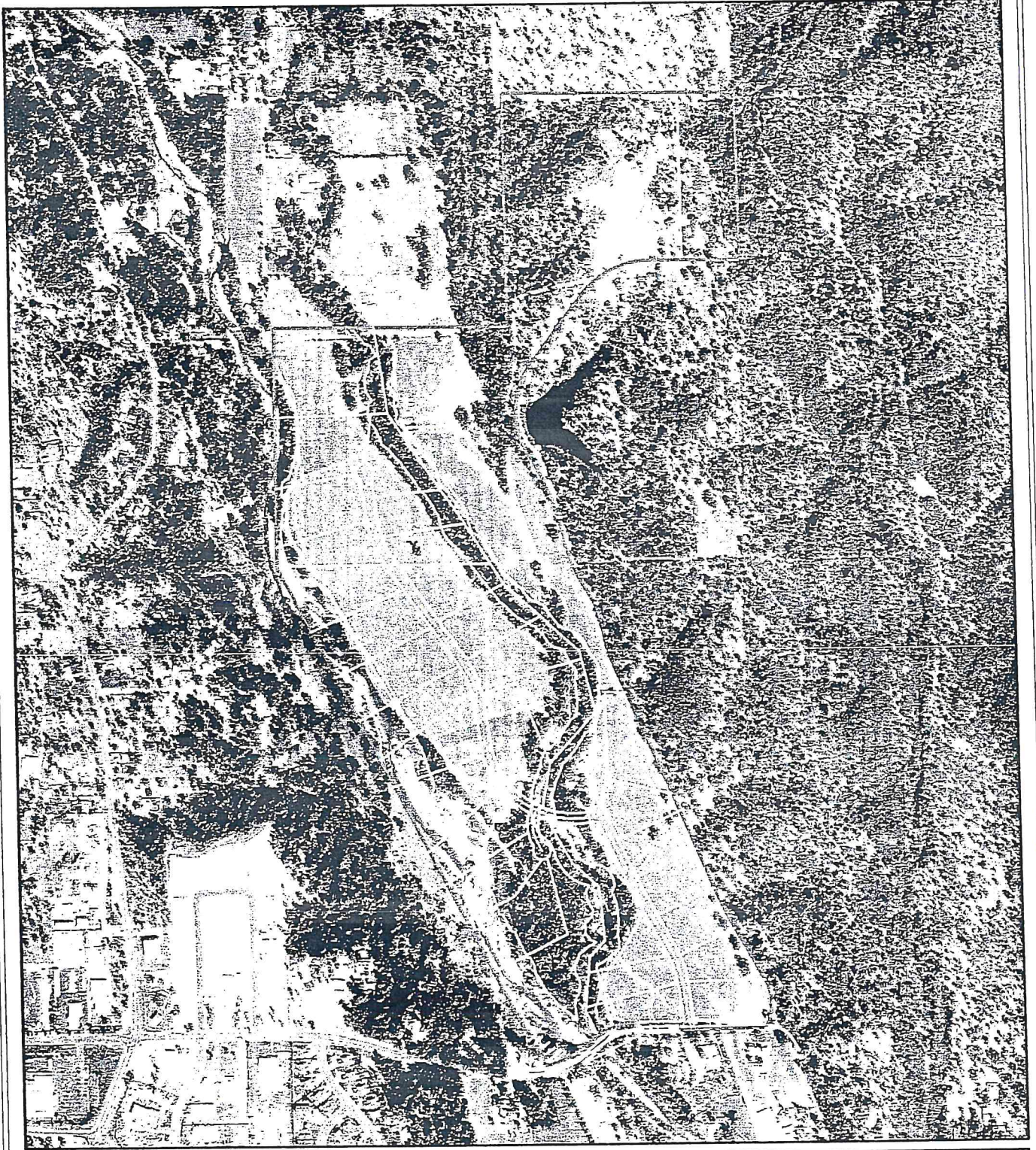
IV. a. Less than Significant with Mitigation Incorporated. A California Natural Diversity Database (CNDDDB, 2003) search of the project area and surrounding lands was performed (**Figure 3**). The results of the search indicated that the following sensitive plant and animal species and habitat occur within a one mile radius of the project site:

- Silky Cryptantha
- Red Bluff dwarf rush
- Slender orcutt grass
- Henderson's bent grass

Only silky Cryptantha is known to occur within the project boundaries. Silky Cryptantha (*Cryptantha crinita*) is a CNPS List 1B annual herb, 4 to 16 inches tall, with small white flowers. It occurs in the north end of the Sacramento Valley in Shasta and Tehama counties and has been detected within the mid western boundary of the project site, in the Stillwater Creek drainage. Suitable habitat includes sand and gravel deposits associated with seasonal and, less frequently, perennial streams generally below 1,000 feet elevation (Bureau of Land Management 2002). California Native Plant Society List 1B plants are native California species, subspecies or varieties that are rare, threatened, or endangered in California and elsewhere. Silky Cryptantha is also a federal species of concern. Surveys will be performed for the CEQA document, which, if found, will also recommend mitigation measures to protect the silky Cryptantha.

According to the Biological Characterization prepared by North State Resources (NSR), eight elderberry (*Sambucus* sp.) bushes occur within the southern portion of the project site. Although the project site is north of the area designated as critical habitat by the USFWS for valley elderberry longhorn beetle (VELB), potentially suitable habitat occurs onsite. The valley elderberry longhorn beetle (VELB) is dependent on elderberry, which is a riparian shrub and a common component of the remaining riparian forests of the Central Valley.

The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is currently listed federally and by the state as Threatened. Use of the plants by the beetle, a woodborer, is rarely apparent. Frequently, the only exterior evidence of the shrub's use by the beetle is an exit hole created by the larva just before the pupa stage. Larvae appear to be distributed in stems that are 1.0 inch or greater in diameter at ground level. Therefore, US Fish and Wildlife Service has determined any stem 1.0 inch or greater to be critical habitat and requires a 100 foot or greater open space buffer, unless mitigated by an approved off-site mitigation bank. The CEQA document will require a formal VELB survey to determine the presence or absence of the beetle, and will recommend mitigation measures to protect this species.



0 500 1,000 Feet



Gallaway
Consulting Inc.
1300 Nevada Court, Suite 100, CA 95926

Figure 2.

IV. b. Less than Significant with Mitigation Incorporation. Two creeks are included within the project boundaries. Salmon Creek runs generally north-south through the center of the project site. Stillwater Creek forms the western boundary of the project site. Salmon Creek and Stillwater Creek confluence at the southern boundary, and Stillwater Creek joins the Sacramento River approximately 8 miles south downstream. Both creeks are lined by Valley oak riparian forest. The Shasta County General Plan makes provisions for the protection of riparian habitat. In particular, Chapter 6, the Resources Group, Section 6.6, Fish and Wildlife Habitat, calls for the following measures to protect existing riparian habitat:

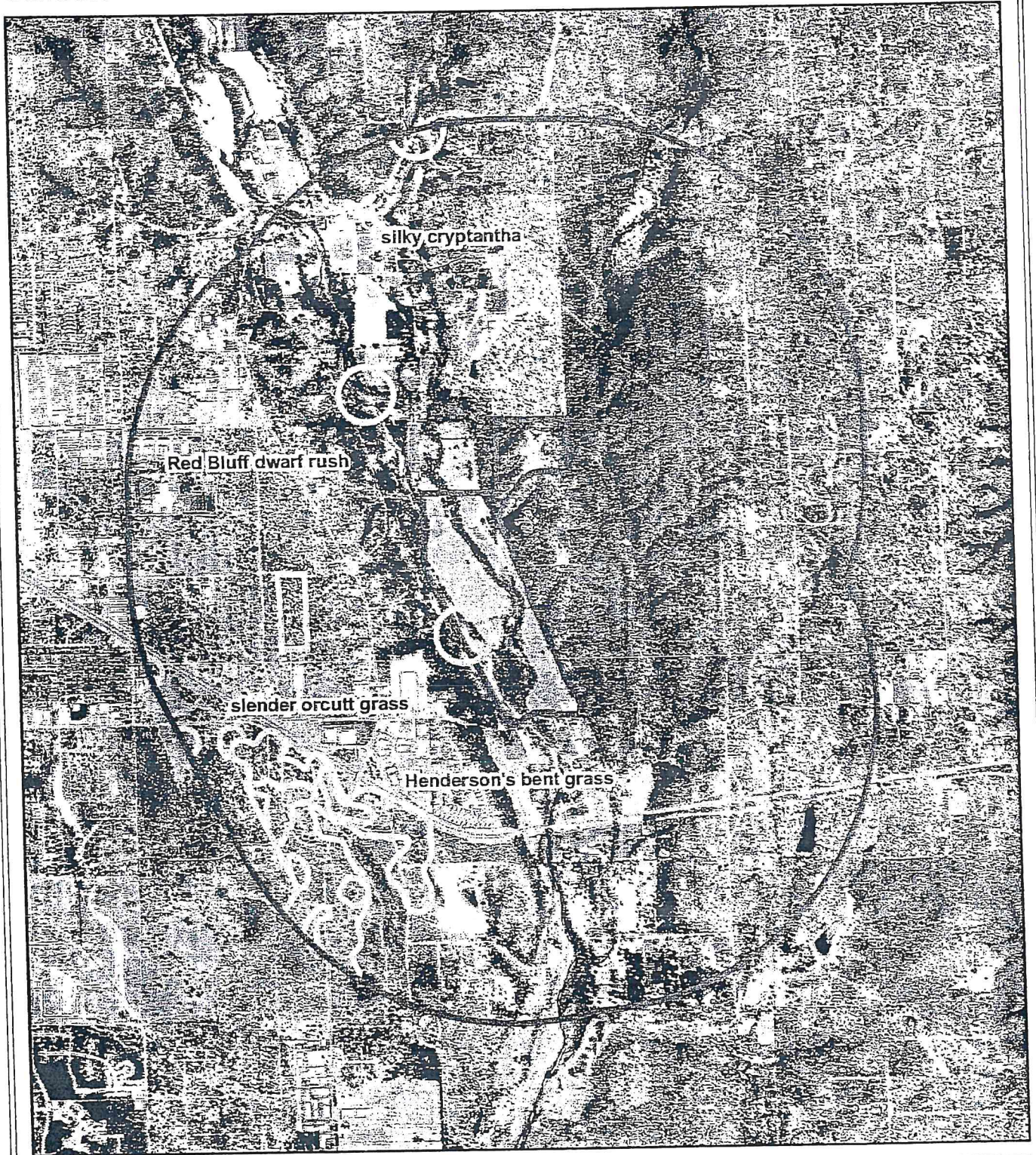
- design of grading and road construction
- establishment of a development set-back
- the siting of structures, including clustering
- regulation of vegetation removal




In addition, according to the current site plan, the applicant intends to avoid construction of homes or related infrastructure within the 100-year flood limits of the creeks. This would include protection of the riparian habitat.

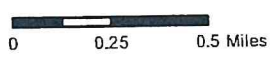
Blue oak– gray pine woodland is found adjacent to the pasture lands which dominate the project area. Although not specifically protected within the Shasta County General Plan, California Department of Fish and Game has designated blue oak woodlands as a "threatened" natural community (S Rank 3.2). According to a Biological Characterization prepared by NSR in 2003 noted that approximately 20% of their study area contains blue oak-gray pine woodlands.

It is noted that the project site map indicates very large lots, and it is possible that the project could be designed to avoid impacts to both riparian and blue oak habitats. Otherwise, the CEQA document will recommend mitigation measures designed to protect these resources.

IV. c. Less than Significant with Mitigation Incorporation. North State Resources prepared a Delineation of Waters of the US in November 2003, the results of which are summarized in the Biological Characterization. A total of 0.18 Waters of the US were mapped on the NSR delineation: 0.16 acres of seasonal wet meadow in the northeast corner of the project site and 0.02 acres of ephemeral creek in the lower southeast portion of the project area. According to the current site plan, no development is proposed for the area of seasonal wet meadows. The ephemeral creek traverses lot 5 in a generally east-west direction before emptying into Salmon Creek. No vernal pool habitat or other seasonally ponded features were observed by NSR. It is possible to protect the ephemeral stream through project design, and disturbance to existing wetlands and Other Waters of the United States should be avoided to the greatest extent possible through the implementation of set-backs of enough width to adequately protect the resource (50 feet from the top of each bank). Where complete avoidance is not possible, impacts should be minimized to the greatest extent practicable. Before construction occurs that may impact Waters of the United States, the project proponent will be required to obtain a 1603 Streambed Alteration permit with California Department of Fish and Game (CDFG), a water quality certification and construction stormwater permit from the Regional Water Quality Board (Clean Water Act, Section 401), an Army Corps of Engineers (COE) Nationwide permit (Clean Water Act, Section 404), and final approval by CDFG. These permits are contingent on successfully completing the CEQA process. These conditions will be imposed through mitigation measures in the CEQA document prepared for the project.



-  Project Site
-  1 Mile Buffer of Project Site
-  CNDDDB Occurrences



 Gallaway
Consulting Inc.
7969 Nevada Loop, Littleton, CO 80120

Figure 3.

IV. d. Less than Significant with Mitigation Incorporation. According to the Biological Characterization prepared by NSR, the Salmon and Stillwater Creek channels were not included in the study because the applicant proposes to avoid construction of any sort within the 100 year flood limits of these waterways. The report further states that Stillwater Creek provides habitat for fall/late fall run, spring run, and Winter run Chinook salmon at its confluence with the Sacramento River approximately 8 miles downstream of the project site. However, according to research conducted by NSR, "... warm water temperatures in the summer (or lack of water altogether) and other limiting factors prevent year round use of the creek by juvenile Chinook salmon or steelhead near the project site." However, there remains the low probability that the creek could provide habitat for these protected species, and the CEQA document prepared for the project will recommend mitigation measures, if necessary, for the protection of salmon and steelhead trout. In addition, the Shasta County General Plan makes provisions for the protection of salmon habitat, specifically Policy 6.7.4, FW-e states that salmon spawning gravel shall be protected from the mouth of Stillwater Creek to the Highway 299E bridge.

IV. e. Less than Significant. The City of Redding does not have a specific tree protection ordinance, however, the General Plan contains language protecting riparian habitat (see discussion under IV. b, above), and language to conserve oak woodland areas designated as Natural Resource Protection Habitat. As noted on the current site plan for the project, the majority of oak woodlands on the project site are avoided by site design.

IV. f. No Impact. Shasta County does not have in place any habitat conservation plans, and the project would not conflict with any such local, regional or state plans.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	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 as defined in §15064.5?			●	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		●		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				●
d) Disturb any human remains, including those interred outside of formal cemeteries?		●		

DISCUSSION:

V. a. Less than Significant. According to the Archaeological Inventory Survey prepared for the site by Jensen and Associates in April 2003, the site has been subject to ground disturbing activities, but appears to contain lands ranging from low to high sensitivity for prehistoric sites, and low to moderate sensitivity for historic features. This report is confidential as it contains sensitive information regarding the location of

a historical site and is not included in publicly available documents. The survey was performed on both the project site and an additional acreage to the northeast. The additional acreage contains buildings constructed in the 1940s and 1950s. Due to the fact that this area is not planned for development and that the buildings' potential historical significance have been upgraded and/or replaced, discussion of these existing buildings is not within the scope of this Initial Study. The survey found no evidence of demonstrably historic-period homesteading or occupation or use. The negative results are partially attributable to ongoing farming and ranching uses, and to past fires which have destroyed some earlier features which may have once existing within the project area.

V. b. **Less than Significant with Mitigation Incorporated.** Evidence of prehistoric presence was observed at one location on the project site. A single prehistoric site designated Miller #1 was identified and recorded, and has been recommended as potentially significant under CEQA Significance Criterion (d) for research and information values. Although it appears that the archaeological site is located in an area of the project site not planned for development, standard mitigation measures to protect cultural resources will be required as a part of the CEQA document.

V. c. **No Impact.** There are no known unique paleontological resources on the project site. The project would not disturb any unique geological features.

V. d. **Less than Significant with Mitigation Incorporation.** It is not anticipated that the implementation of the proposed project would result in any significant adverse impacts to cultural resources. However, there is the potential for unknown/undocumented cultural resources, including human remains, to be uncovered during work activities; therefore, the CEQA document will recommend standard mitigation measures to protect potential cultural resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:			●	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			●	
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), creating substantial 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?		●		

DISCUSSION:

VI. a. i. **Less than Significant.** Although the Shasta County General Plan indicates that Shasta County as a whole is a seismically active region, the project site is not located in an area of known earthquake faults or seismic activity, nor is it located within or adjacent to an Alquist-Priolo Earthquake Fault Zone.

VI. a. ii. **Less than Significant.** Shasta County historically has a low level of seismic activity. According to the General Plan, in well over 100 years there has been no significant property damage or loss of life due to earthquakes occurring within or near the County.

VI. a. iii. **Less than Significant with Mitigation Incorporation.** The Shasta County General Plan notes that liquefaction is most likely to occur in alluvial (geologically recent, unconsolidated sediments) and stream channel deposits, especially when the ground water table is high. Areas of potential liquefaction are located in the north central valley area. The Preliminary Soil Investigation prepared for the project site by KC Engineering Company in June of 2004 indicates that the site is underlain by Recent Alluvium which consists of alluvium, old alluvium, and young stream deposits. Although the Soil Investigation report concludes that the property contains buildable areas, KC Engineering recommends that each potential building site be evaluated individually to determine its suitability for construction.

VI. a. iv. **Less than Significant.** According to the General Plan, landslides are more prevalent in the eastern and northern portions of the County and are commonly related to the sedimentary and volcanic rocks in these vicinities. In the Whitmore Quadrangle mapped by G.A. MacDonald and P.A. Lydon, 1972, slumping and landsliding were widespread and attributed to poorly consolidated sedimentary rocks overlain by massive volcanic rocks. This type of instability has occurred in the Montgomery Creek Formation, in mudflow deposits of the Tuscan Formation, and in the sedimentary rocks of the Chico and Red Bluff Formations. Landslides in the western portion of the County are not as widespread, but occur in areas of sedimentary and volcanic rocks. Seismically induced landsliding is not considered a significant hazard in Shasta County.

VI. b. **Less Than Significant With Mitigation Incorporation.** Since the ground surface will be disturbed by grading and use of construction equipment, there is an increased potential for erosion during the construction process. Erosion impacts arising from construction activities will be temporary, and will be less than significant once work is completed. The CEQA document will require mitigation in the form of a grading plan and a site specific erosion control plan and/or a Storm Water Pollution Prevention Plan.

VI. c. **Less than Significant with Mitigation Incorporation.** Please see the discussion under VI. d, below.

VI. d. **Less than Significant with Mitigation Incorporation.** According to the General Plan, most of Shasta County is characterized by moderately expansive soils with areas of low expansiveness in the South Central Region and southeastern corner of the County. This hazard is identifiable through standard soil tests. Its effects on structures can be mitigated through the requirement of proper engineering design and standard corrective measures.

VI. e. **Less than Significant with Mitigation Incorporation.** Based on the Preliminary Soils Investigation, the project site does contain buildable areas. Due to the recommendation that each site be evaluated individually for suitability, it is also recommended that the evaluation include suitability for use of septic systems and alternative wastewater disposal.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VII. 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 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 for people residing or working in the project area?				●
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				●
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				●

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

VII. a. Less than Significant. The only potentially hazardous materials that would be used during project construction would be motor vehicle fuels and oils that would present a minor hazard, and only if spillage occurs. Any potential for the release of hazardous materials into the environment is regulated through existing federal and state laws. These regulations require emergency response from local agencies to contain hazardous materials.

VII. b. Less than Significant with Mitigation Incorporation. Construction activities associated with the project typically include refueling and minor maintenance on construction equipment on location, which could lead to minor fuel and oil spills. The use and handling of hazardous materials during construction activities would occur in accordance with applicable federal, state, and local laws including California Occupational Health and Safety Administration (CalOSHA) Requirements. Any fuel spills are expected to be minor. Nevertheless, such spills are considered potentially significant unless mitigation is incorporated. Mitigation to reduce this potential impact to a level that is less than significant will include a Spill Prevention, Control, and Containment Plan. The proposed project will not create a significant hazard to the public or the environment through the routine transport, use, disposal of hazardous material, or increase the risk of an explosion or the release of hazardous substances into the environment or adversely affect overall public safety.

VII. c. No Impact. The project site is not located near an existing or proposed school. Besides the construction activity hazards discussed above, the project will not emit or generate hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste.

VII. d. No Impact. According to Department of Toxic Substance Control records, two possible hazardous waste facilities are located in Shasta County: one in the City of Shasta Lake and a second in the vicinity of Shasta General Hospital.

VII. e. No Impact. The project site is not located within two miles of a public use airport.

VII. f. No Impact. The project site is not located within the vicinity of a private airport.

VII. g. No Impact. The project would not result in any impact to emergency response or evacuation plans.

VII. h. Less than Significant with Mitigation Incorporation: The project site is located in the lower foothills east of Redding. The eastern border of the project site abuts undeveloped oak woodlands. Development and canopy cover exist to the north, west, and south of the project site. In addition, the Shasta County General Plan defines the project area as a very high risk for wildland fire. The General Plan concludes that as a general rule, wildland fire hazards do not preclude development; yet they do require that development meet special standards commensurate with the degree of risk. The State of California has adopted minimum fire safety standards per section 4290 of the Public Resources Code. The California Department of Forestry and Fire Protection (CDF) is responsible for administering these standards. Shasta County has adopted into its development standards Fire Safety Standards for Parcel Maps and Subdivisions in Shasta County which meets or exceeds the State's standards. These development standards address access, road widths, bridges, building construction, and hydrant and

water systems. A section on mitigation measures is also included. The standards are particularly helpful in that they directly relate to fire hazard severity classifications.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?		●		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			●	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		●		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?		●		
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?		●		
f) Otherwise substantially degrade water quality?		●		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				●
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				●
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a			●	

levee or dam?				
j) Inundation by seiche, tsunami, or mudflow?				

DISCUSSION:

VIII. a. Less than Significant with Mitigation Incorporation. This project will require a General Construction Stormwater Permit as part of the RWQCB permit process. Obtaining this permit is considered adequate mitigation that reduces potentially significant water quality impacts to a less than significant level. It is also noted that the project applicant would be assessed developer mitigation fees to offset the County's costs to accomplish connection and infrastructure improvements.

VIII. b. Less than Significant. The Water Use and Wastewater Treatment Report cited in the County's General Plan contains an extensive discussion of the surface and groundwater resources of Shasta County. A major conclusion of this discussion is that the water resources of Shasta County are more than adequate to meet its existing and future needs. The problem is that these resources are not uniformly distributed throughout the County. This fact has major implications for the geographic distribution of future growth, as discussed in the Community Development Group section of the General Plan.

The Community Development Group concludes that the developable land supply is more than adequate to accommodate the population growth and its concurrent residential and employment land use requirements, as projected for the next 20 years (the General Plan was adopted in 1997). However, the supply of developable lands, especially the lands of higher suitability, is not uniformly distributed throughout the County. Two planning areas, the South Central Region (SCR) (in which the proposed project is located) and Northeast Shasta contain 100% of those lands classified as very high or highly suitable for development.

VIII. c. Less than Significant with Mitigation Incorporated. Although the project plans to avoid creeks and their corresponding 100-year flood plain, there is a home site indicated for the small ephemeral drainage which crosses lot 5. This drainage empties into Salmon Creek. In addition, this project will require excavation, grading, roadway construction, and loss of vegetation, which has the potential to result in erosion and adverse impacts on water quality. There is the potential for erosion of soils and siltation of waterways as a result of the construction activities of the proposed project. Construction activities will be performed in accordance with Appendix 33 (Excavation and Grading) of the Uniform Building Code to ensure that development incorporates appropriate design provisions to protect waterways and reduce erosion. Other mitigation measures may be developed in other sections of the CEQA document that will ensure the minimization of erosion.

VIII. d. Less than Significant with Mitigation Incorporation. Drainage patterns and surface runoff amounts are the result of a number of factors including slope, soil permeability, vegetation, and surface type. Changes to these factors that occur as the result of new development can result in a substantial increase in runoff amounts. Substantial increases in runoff can cause flooding or contribute to flooding in a flood-prone area, exceed the capacity of existing or planned storm water or create new sources of polluted runoff. All projects that propose earth moving activities which would significantly alter drainage patterns are required to obtain a grading permit and/or submit a grading and drainage plan. The CEQA document will propose other mitigation measures to ensure that proper design, grading, and wetland mitigation practices be implemented so there will be a less than significant impact resulting from flooding and polluted runoff.

VIII. e. **Less than Significant with Mitigation Incorporated.** See VIII. d), above. Mitigation Measures developed in the CEQA document in the Biological Resources and Geology and Soils section would control the amount of sediment that would be generated by the project construction. Other mitigation measures developed for this section would ensure that proper design and grading are implemented so there will be a less than significant impact resulting from flooding and polluted runoff.

VIII. f. **Less than Significant with Mitigation Incorporation.** Regulatory permits and other standard measures to protect water quality will be developed as a part of the CEQA document.

VIII. g. **No Impact.** As discussed previously, there are no plans to place structures of any sort within the 100 year floodplain of Stillwater and Salmon Creeks.

VIII. h. **No Impact.** See VIII. g), above.

VIII. i. **Less than Significant.** According to the Shasta County General Plan, dam failure inundation hazards present major health and safety implications in the SCR Planning Area (in which the project is located), particularly in the vicinity of the Shasta Lake and Whiskeytown Reservoir dams. Failure of Shasta Dam would result in the inundation of most of Redding within less than an hour of failure. Within two hours, all of Anderson and much of the Sacramento River Valley downstream of Redding would be inundated. However, the General Plan concludes that, considering existing development patterns and trends, particularly in the SCR, and the unlikelihood of a dam failure, it would be infeasible to preclude future development from locating in dam inundation areas. It is possible, however, to discourage critical structures (hospitals, fire, and police stations) and high occupancy structures (schools, theaters, and public meeting places) from locating in these areas. No critical or high occupancy structures as defined in the General Plan are proposed for the project site.

VIII. j. **Less than Significant.** The proposed project is not located near any large bodies of water subject to seiche or tsunami. The project is not located near any volcanoes, and is therefore not likely to experience mudflows.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?				●
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			●	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				●

DISCUSSION:

IX. a. **No Impact.** The project site is located to the east of existing development and would not divide an established community.

IX. b. **Less than Significant.** According to the Shasta County Zoning Ordinance, development of residential housing is allowed in the A1-5 and BA-5 zones as long as parcel sizes remain at the minimum allowable acreage. However, the CEQA document will contain recommendations for lot sizes, conforming setbacks, etc. should the project require an Administrative Permit, a Zoning Permit, or a Use Permit from the County.

IX. c. **No Impact.** No applicable habitat conservation plan or natural community conservation plan exists for the area. Please see the discussion regarding protection of trees in the Biological Resources section.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
X. 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:

X. a. **No Impact.** The project site is not located on an area of known mineral resources.

X b. **No Impact.** See X. a), above.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			●	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				●
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			●	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		●		

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

DISCUSSION:

XI. a. Less than Significant. The project is located in an area which contains rural residential and light industrial uses. It would not expose persons to noise levels above those in excess of standards stated in the General Plan (60 dB for residential uses).

XI. b. No Impact. The project is not located in an area of groundborne vibration or groundborne noise levels.

IX. c. Less than Significant. At present, the project site is a vacant field, historically used for agriculture. Construction and build out of the project will increase onsite noise levels. With the exception of temporary construction-related noise, however, these levels are not expected to exceed the acceptable range for noise as stated in the General Plan. Please see the discussion for IX. d), below.

IX. d. Less than Significant with Mitigation Incorporation. There would be a temporary increase in noise levels associated with project construction. The earth moving/grading phase is not expected to require blasting or pile driving. Once construction is completed, noise generated by these activities would cease. The CEQA document will require that the project implement Caltrans standard specification, Section 7-1.01L, "Sound Control Requirements".

XI. e. No Impact. The project is not located within two miles of any airport.

XI. f. No Impact. See XI. e), above.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			●	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				●

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				●
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DISCUSSION:

XII. a. Less than Significant. The project consists of the construction of 34 homes on large lots. The introduction of 34 homes with an average occupancy rate of approximately 2.52 persons per household (US Census Bureau, California, Shasta County statistics) would result in a population growth of approximately 86 persons.

XII. b. No Impact. The project would not result in the displacement of existing housing.

XII. c. No Impact. The project would not result in the displacement of any numbers of people.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?		●		
Police protection?		●		
Schools?		●		
Parks?		●		
Other public facilities?		●		

DISCUSSION:

XII. a. Less than Significant with Mitigation Incorporation. The Shasta County General Plan contains the following information regarding public services: Fire Control agencies in Shasta County operate at all three levels of government.

Federal - The U.S. Forest Service (USFS) is responsible for wildland fire control on Forest Service administered lands.

State - California Department of Forestry and Fire Protection. The CDF is responsible for wildland fire control outside of Forest Service or city boundaries on approximately 1.1 million acres of private wildlands. CDF protects an additional 250,000 acres of USFS and BLM lands through an agreement with

those agencies. There are five (5) CDF Battalions in Shasta County which support fire fighting equipment and personnel with ten (10) seasonal fire stations.

Local - Fire agencies serving the unincorporated areas of Shasta County include twelve (12) community fire districts, nineteen (19) volunteer fire companies, and one (1) Shasta County Fire District station at the Redding Station 43. The nineteen volunteer fire companies are operated under the jurisdiction of the Shasta County Fire Department, as is the County Fire District station. The community fire districts, on the other hand, are separate legal entities with legally drawn boundaries. Community fire districts have boards of directors and budgets separate from that of the Shasta County Fire Department.

The unincorporated areas of Shasta County receive general public safety and law enforcement services from the Shasta County Sheriff's Office. The areas are covered by three geographic patrol areas with stations in the City of Shasta Lake, Anderson, and Burney. Each area has responsibility for several beats. Approximately thirteen deputies report to each station. In addition, the Lakehead and Shingletown areas have resident deputies. The Sheriff's Office has a total of 153 sworn deputy positions and 88 non-sworn positions. Forty-one percent are assigned to custody division (County Jail). The 1997 annual cost of a sworn officer is approximately \$55,000 exclusive of equipment costs. The growth of Shasta County during the planning period will require expansion of the Sheriff Department to serve the needs of new residents of unincorporated areas. Coordination between the Sheriff Department and Planning Division will be useful in identifying future service needs and areas where development could occur without generating new demands for sheriff protection. New developments in the unincorporated, urban areas of the County will need to use physical designs that develop a sense of community identity and self-protection.

Schools in Shasta County are experiencing funding difficulties, according to the General Plan. In the rural areas of the County, the recreation demands of residents are no less than those of persons residing in urban areas, but they are of a different nature. Open lands are close at hand, population densities are low, and opportunities for informal or passive recreation activities are more readily available. Schools and service organizations play a major role in meeting most, if not all, the needs of rural community residents for developed recreation facilities.

The introduction of approximately 86 persons from the project will not strain existing fire and police protection resources, nor will they have a significant impact on area schools and recreation facilities. However, the County may want to assess development impact fees to further reduce any impacts to public services.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. RECREATION --				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				●
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				●

DISCUSSION: XIV. a. No Impact. The anticipated increase in persons using existing parks as a result of the project is not anticipated to have a significant impact on recreation facilities.				
XIV. b. No Impact. The project does not include construction of recreational facilities.				
	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?		●		
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?		●		
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				●
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				●
e) Result in inadequate emergency access?		●		
f) Result in inadequate parking capacity?				●
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?		●		
DISCUSSION: XV. a. Less than Significant with Mitigation Incorporated. According to the General Plan, the County has the challenge of balancing the need for coordinated planning in the SCR area with the needs of three incorporated cities for urban and suburban development. An estimated 85 percent of the County's population resides in the SCR. Consequently, the bulk of trips originating or terminating in the County occur in this location. It must simultaneously accommodate rural and small community growth throughout the entire County. Any successes with planning in this environment will be dependent on how well County plans integrate with those of the other jurisdictions. Complicating the problem is the presence of Interstate 5 and the County being located within a regional recreation				

center, two significant factors that influence total trips impacting both resident life styles as well as the overall efficiency of the local transportation network.

The Institute of Transportation Engineers Trip Generation Manual indicates that single-family detached dwellings generate an average of 10 trips per weekday per vehicle. The average is derived from a maximum of 21.9 and a minimum of 4.3 trips. The County may require a traffic analysis to determine the significance of the possibility of 680 trips per day from the project site (assuming two cars per household).

XV. b. **Less than Significant with Mitigation Incorporation.** The traffic study mentioned in XV. a), above, will determine whether the project will increase traffic levels to a degree that exceeds level of service standards for County roads.

XV. c. **No Impact.** The project will have no effect on air traffic patterns.

XV. d. **No Impact.** Residents will access the project site via Old 44. Current site plans indicate internal access roads which are slightly curving and terminate in a bulb (see **Figure 2**, Site Plan).

XV. e. **Less than Significant with Mitigation Incorporation.** Although all lots are accessible by the internal roads, the current site plan indicates only one route of access/egress. This may present problems for emergency access in particular for wildland fires. Mitigation measures developed for the Hazards chapter may require a secondary access/egress route.

XV. f. **Less than Significant.** The project will provide adequate parking for residents and their guests. No commercial uses are planned for the site which would require parking for customers.

XV. g. **Less than Significant with Mitigation Incorporated.** According to the Shasta County General Plan, new development projects should be evaluated for their consistency with the County Bikeway Plan. Where appropriate, new development should dedicate land and/or construct/install bicycle facilities. Should the County require a traffic study for the CEQA document prepared for this project, the analysis should include an evaluation of consistency with the Bikeway Plan.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?		●		
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		●		

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?		•		
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			•	
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?		•		
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			•	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			•	

DISCUSSION:

XVI. a. Less than Significant with Mitigation Incorporation. The County General Plan notes the following about the use of septic systems:

The simplest system is the individual on-site septic tank and leach field serving a single dwelling. The advantage of this on-site wastewater treatment system is its relatively low cost and its water recharge characteristics. Disadvantages relate to the narrow requirements of this system with respect to soil characteristics, topography, and the absence of seasonal or year-round high groundwater levels. Failure of a septic tank system is its major disadvantage because it may result in contamination of groundwater or other health related problems. Unless this failure is evidenced by odor, visual or mechanical symptoms, it may go undetected indefinitely. With few exceptions these requirements severely limit their use in Shasta County in that it cannot be assumed that every lot in the County of any size will be able to support an on-site septic tank and leach field system. Generally, those areas of the County with the least constraints on the use of this system are located in the Sacramento Valley area and are most easily served by community sewer systems.

Determining individual on-site sewage disposal suitability requires site by site investigation. In areas of seasonal high groundwater, the County's on-site sewage disposal rules may require that wet weather testing, mathematical modeling, or groundwater determinations show that necessary suitability exists during "normal" rainy season conditions to allow safe operation of septic systems. It is anticipated that the development will be served by individual septic systems. As mentioned in the section on Geology and Soils, each are planned for building will undergo evaluation. This evaluation should include an analysis of suitability for septic tank use.

XVI. b. Less than Significant with Mitigation Incorporated. The project will utilize individual septic systems and wells and will not require connection to existing water or wastewater systems. Please see the discussion in XVI. a, above.

XVI. c. **Less than Significant with Mitigation Incorporated.** The project will introduce impervious surfaces to an area which previously had none, resulting in the need for the construction of stormwater drainage facilities. The County may require mitigation through the preparation of a Storm Drainage Plan, or a Stormwater Pollution Prevention Plan (SWPPP). In addition, the RWQCB will require a General Construction Stormwater permit.

XVI. d. **Less than Significant.** Please see discussion regarding water supply under VIII. b.

XVI. e. **Less than Significant with Mitigation Incorporated.** Please see the discussion under XVI. a, above.

XVI. f. **Less than Significant.** Shasta County is served by several landfills. In addition, the General Plan makes the following provisions for increasing landfill capacity as needed: New solid waste facilities may be conditionally permitted according to the zoning plan, if the site is first found to be favorably based on environmental and social constraints. This plan provides for new solid waste facilities to be conditionally permitted in all areas of the County as the need occurs. This requires the site to be compatible with adjacent land uses. Once the solid waste facility is approved, new land uses in the surrounding area must be regulated to avoid incompatibility with the solid waste facility.

XVI. g. **Less than Significant.** Solid waste collection and disposal within California is subject to the provisions of the California Integrated Waste Management Act. This legislation mandates a 50 percent reduction in the solid waste stream going to landfills by 2000. The project would comply with any regulations implemented to ensure that State mandates are met.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE --				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		●		
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 which will cause substantial adverse effects on human beings, either directly or indirectly?				●

DISCUSSION:

XVII. a. **Less than Significant with Mitigation Incorporated.** As discussed in Section IV, Biological Resources, there are riparian features within the project site. In addition, the site contains and is adjacent to elderberries, which could host the protected valley elderberry longhorn beetle. Silky Cryptantha has been identified on site. The CEQA document will make recommendations and develop mitigation measures to reduce impacts to these resources to a less than significant level.

XVII. b. **Less than Significant with Mitigation Incorporated.** Cumulative impacts associated with the proposed project include a potential increase in traffic and a temporary contribution to the cumulative degradation of regional air quality. In addition, there may be potential cumulative regional impacts related to the use of individual septic systems and to water supply. Mitigation measures provided in the CEQA document will reduce those impacts to a less than significant level.

XVII. c. **No Impact.** The construction of the Stillwater Ranch Subdivision project is not known to have environmental effects that directly impact or adversely affect human beings. The proposed project does not generate emissions or by-products as a result of manufacturing.

References:

Jensen and Associates, Archaeological Inventory Survey for the Proposed Miller Ranch Development, April 11, 2003.

KC Engineering, Preliminary Soils Investigation, Stillwater Ranch Subdivision, June 3, 2004.

North State Resources, Letter Summary of Miller Ranch Development Project, Biological Characterization, November 11, 2003.

Personal Communication, Ross Bell, Shasta County Air Quality Management District, August 4, 2004.

Shasta County General Plan, adopted in 1997.

Shasta County Zoning Code

US Census Bureau: <http://quickfacts.census.gov/qfd/states/06/06089.html>

BIOLOGICAL RESOURCES ASSESSMENT

PROPOSED STILLWATER RANCH LOT 7 RESIDENTIAL DEVELOPMENT SHASTA COUNTY, CALIFORNIA



Prepared for

Mark and Christine Lewis
3265 Rupert Road
Anderson, California 96007

Prepared by



VESTRA Resources Inc.
5300 Aviation Drive
Redding, California 96002

JULY 2023



July 26, 2023

GIS, Environmental, & Engineering Services

72312

Mark and Christine Lewis
3265 Rupert Road
Anderson, CA 96007

**RE: Biological and Cultural Resource Reports
Stillwater Subdivision, Lot 7 Building Envelope (APN 111-280-007)**

Dear Mr. and Ms. Lewis:

Enclosed is a Biological Resources Assessment for your proposed residential construction area on Lot 7 in the Stillwater Ranch subdivision. Please review, save a copy for your records, and submit to David Schlegel, Senior Planner, at the Shasta County Department of Resource Management Planning Division.

Please feel free to contact me with any questions at 530-223-2585. Thank you.

Sincerely,

VESTRA Resources, Inc.

A handwritten signature in black ink, appearing to read "Anna Prang". The signature is fluid and cursive, written over a light blue horizontal line.

Anna Prang
Senior Biologist

Attachments

cc: Brent Bryer (Brent@Northwest-Homes.com)
Nathan Sellers (shastalandsurveying@gmail.com)

BIOLOGICAL RESOURCES ASSESSMENT

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JULY 2023

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B	Web Soil Survey Map
C	U.S. Fish and Wildlife Service IPaC Species List

1.0 INTRODUCTION

1.1 Project Description

The Stillwater Ranch development is a residential subdivision that is currently under development within the city of Redding, California. The focus of this assessment is a single proposed lot (identified on the Tentative Parcel Map as Lot 7) within the subdivision. Because approval of the lot development requires an assessment of impacts to special-status wildlife and botanical resources, Shasta County Planning Department has requested completion of a Biological Resources Assessment of the building envelope within Lot 7.

The building envelope (i.e., where construction of the house and any permanent associated structures are proposed) is an approximately one-acre portion of the Lot 7 property. Proposed activities within the building envelope include the construction of a home, driveway, and associated landscaping. The property boundary and proposed building envelope are shown in the parcel map included as Appendix A.

The proposed building envelope is more than 50 feet away from the adjacent intermittent stream, Salmon Creek. No aquatic resources are present onsite. Within Stillwater Ranch, Covenants, Conditions, and Restrictions (CC&Rs) mandate that landscaping is designed to complement, protect, and harmonize with the natural terrain, existing trees, and vegetation. The driveway would meander through trees onsite. Therefore, no trees would be removed by the project.

1.2 Site Description

The Project Area for this Biological Resources Assessment includes the proposed building envelope on Lot 7, plus the surrounding area where indirect impacts from construction could occur. The building envelope is partially developed. A previous landowner installed a septic system, residential well, and a house pad on the lot to prepare for a planned construction project. The site is prepared for construction; however, no house was ultimately constructed on the lot. The remainder of the Project Area is naturalized non-native grassland and blue oak woodland.

1.3 Previous Environmental Review

A Biological Characterization Report was completed by North State Resources, Inc. (NSR), in 2003. This report analyzed an 85-acre area, which included the entire proposed Stillwater Ranch subdivision. Lot 7, which contains the Project Area, is located in the southernmost portion of the 85-acre area.

1.3.1 Previous Findings

Species observed onsite during the 2003 site survey were red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaidura macroura*), wrenit (*Chamaea fasciata*), house finch (*Carpodacus mexicanus*), turkey vulture (*Cathartes aura*), rufus-sided towhee (*Pipilo erythrophthalmus*), mallard (*Anas platyrhynchos*), scrub jay (*Aphelocoma coerulescens*), rock dove (*Columba livia*), belted kingfisher (*Ceryle alcyon*), California quail (*Callipepla californica*), killdeer (*Charadrius vociferus*), acorn woodpecker (*Melanerpes formicivorus*), red-shouldered hawk (*Buteo lineatus*), western fence lizard (*Sceloporus*

occidentalis), coyote (*Canis latrans*), gray squirrel (*Sciurus griseus*), beaver (*Castor canadensis*), and deer (*Odocoileus hemionus*).

The 2003 Biological Characterization Report states the following conclusions regarding habitat for special-status species:

- The 2003 botanical surveys did not detect the presence of any special-status plant species within the study area.
- 0.18 acres of Water of the United States were documented and mapped on the 85-acre site consisting of seasonal wet meadow and ephemeral creek.
- A reconnaissance-level pedestrian survey of the study site detected eight blue elderberry (*Sambucus mexicana*) shrubs; therefore, there is potentially suitable habitat on the site for the federally listed valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*).
- The reconnaissance-level fisheries analysis suggests that suitable spawning or migration habitat does not exist within the study area for the state or federally listed chinook salmon (*Oncorhynchus tshawytscha*) or Central Valley steelhead (*Oncorhynchus mykiss*).

In addition, a wetland delineation was completed in 2004 for the entire area by Gallaway Enterprises, Inc. The delineation found a total of 37 acres of seasonal wetland and fresh emergent wetland associated with Salmon Creek and Stillwater Creek. No aquatic features overlap with the Project Area.

2.0 GENERAL SETTING

2.1 Location

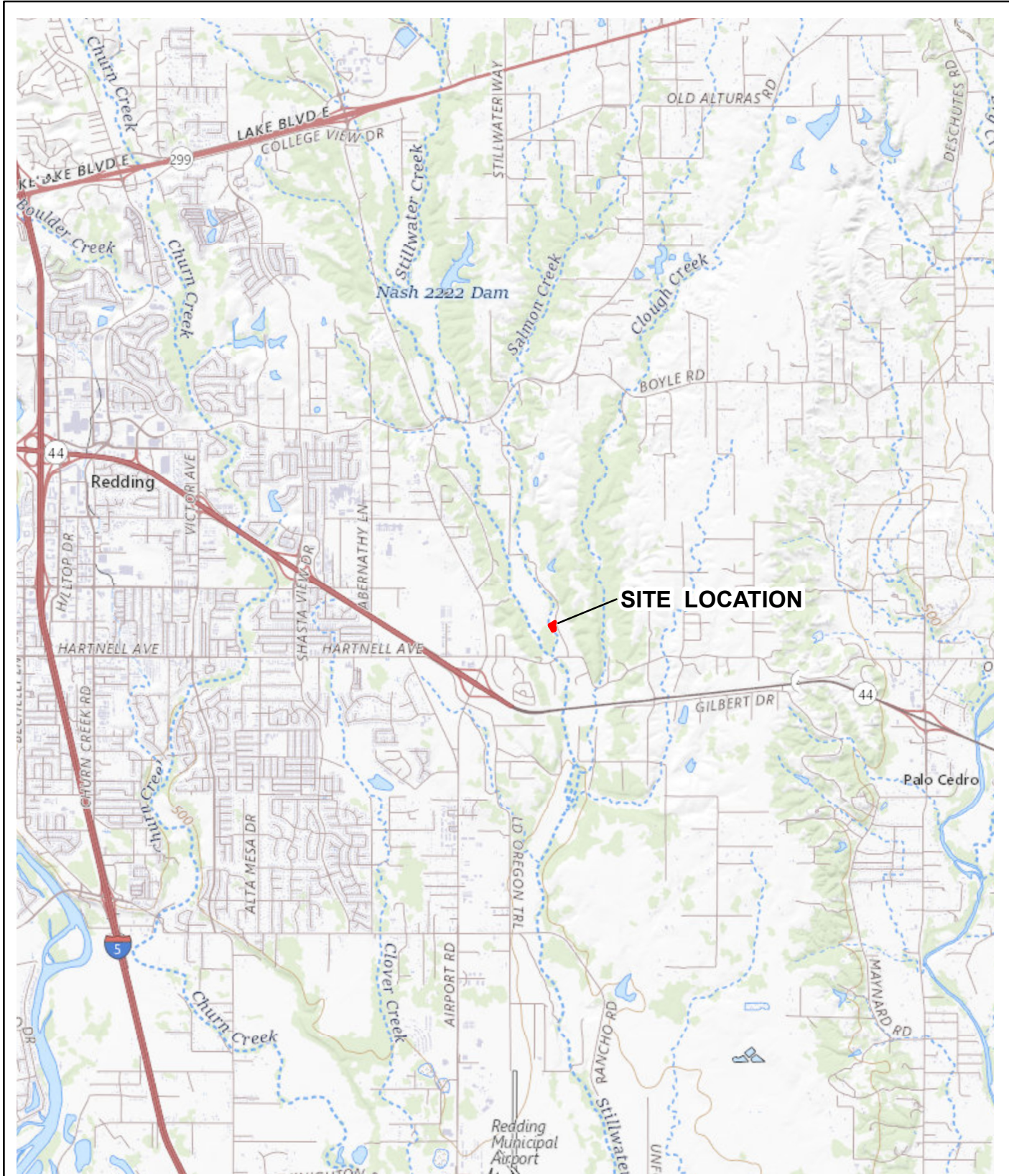
The Project Area is located in Redding on Shasta County Assessor Parcel Number (APN) 111-280-007. The Lot 7 building envelope is located east of Salmon Creek. The site is on Twin Creek Lane and is accessed from Old 44 Drive in northeast Redding. The site is in Township 31 North, Range 4 West, Section 2. The property is surrounded by open space and residential development. The general site location is shown on Figure 1.

2.2 Climate

The Redding area experiences an average of 34.62 inches of annual precipitation. Temperatures range between 16 degrees Fahrenheit (F) and 118 degrees F in a typical year. The year-round average high is approximately 79.1 degrees F (Western Regional Climate Center 2023).

2.3 Soils and Topography

According to the NRCS Custom Soils Resource Report, the site consists of “Ck” cobbly alluvial land, frequently flooded (see Appendix B). Topography is flat terrain with elevations ranging from approximately 515 to 520 feet above mean sea level.



SITE LOCATION

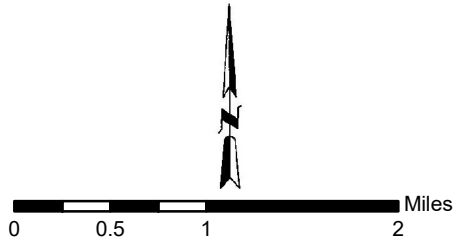


FIGURE 1
GENERAL SITE LOCATION
STILLWATER RANCH LOT 7
REDDING, CALIFORNIA

2.4 Vegetation Communities

Vegetation communities in the study area were classified based on descriptions provided in *A Guide to Wildlife Habitats of California* (CDFW 2014), the Vegetation Classification and Mapping Program (VegCAMP), and observations made during an onsite habitat assessment. Little to no VegCAMP information is available for the region; therefore, VegCAMP classifications were mapped to provide a small-scale delineation of habitat and ecosystems within the California National Vegetation System (Fish & Game Code Section 1940).

Within the Project Area, California Wildlife Habitat Relationship (CWHR) system identifies Valley Oak Woodland, Blue Oak-Foothill Pine, and Annual Grassland habitat types. The CWHR map is included as Figure 2. The site was further characterized according to VegCAMP definitions during the survey. The building envelope area is characterized as Urban. The Project Area surrounding the building envelope are Wild Oat-Annual Brome Grassland and Blue Oak Woodland.

2.4.1 Urban

The urban area onsite consists of the entire building envelope and the site entrance where a driveway has been partially installed. The building envelope is covered by a graded house pad, where fill dirt has been placed. The area is void of vegetation due to the inhospitable fill dirt as well as regular mowing that has been completed onsite. Even species that typically take over disturbed soils are absent from this area. Photographs of urban areas onsite are included as Figure 3 and Figure 4.

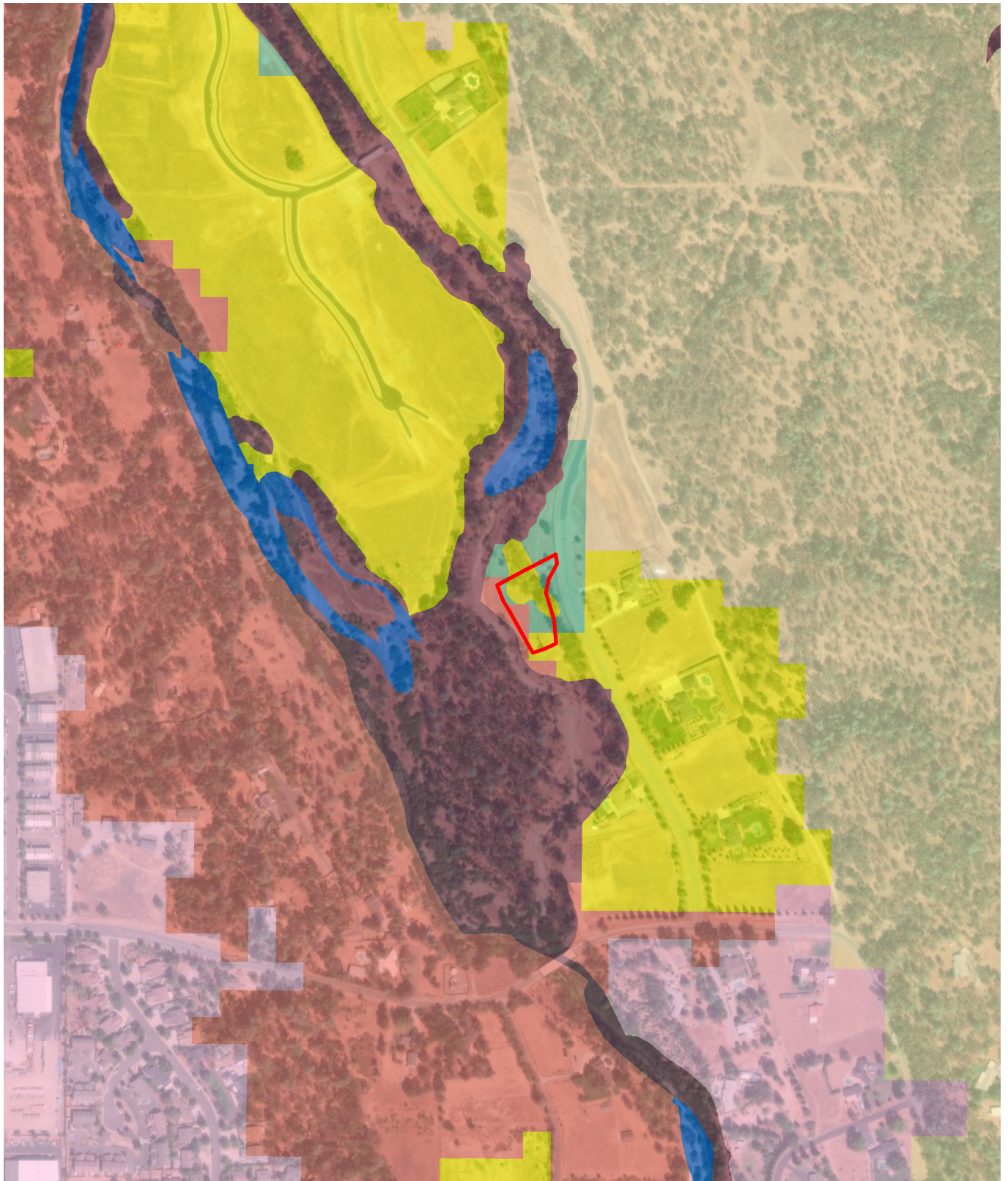
2.4.2 Blue Oak Woodland









The Blue Oak Woodland community onsite is located in the eastern edge of the Project Area and extends south of the property. Plant species in this community onsite include blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*), with an understory of dense wild oat (*Avena fatua*) monoculture. Other species may be present during the blooming period for annual forbs. Photographs of the blue oak woodland onsite are included as Figure 5 and Figure 6.

This vegetation community would not be disturbed by project activities. No oak trees would be removed as the house pad is already prepared and the trees are outside of the building envelope. The driveway will be designed to avoid tree removal. Smaller limbs may be trimmed to accommodate construction traffic, if needed.

2.4.3 Wild Oat-Annual Brome Grassland

The Wild Oat-Annual Brome Grassland community onsite exists outside of the building envelope. Dominant species observed include wild oat (*Avena fatua*) and yellow star thistle (*Centaurea solstitialis*). Photographs of the Wild Oat-Annual Brome Grassland onsite are included as Figure 7 and Figure 8.



- | | | | | | |
|-------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|--------------------------|
|  | Study Area |  | Blue Oak-Foothill Pine |  | Valley Foothill Riparian |
|  | Annual Grassland |  | Riverine |  | Valley Oak Woodland |
|  | Blue Oak Woodland |  | Urban | | |

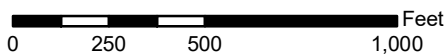


FIGURE 2
 CWR TYPES
 STILLWATER RANCH LOT 7
 REDDING, CALIFORNIA



SOURCE: MAXAR 2022 AERIAL PHOTOGRAPH; USFS CALVEG 2021

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Figure 3: Urban – Building Envelope



Figure 4: Urban – Driveway Location



Figure 5: Blue Oak Woodland (outside of building envelope)



Figure 6: Blue Oak Woodland (outside of building envelope)



Figure 7: Wild oat-annual brome grassland (N of building envelope)



Figure 8: Wild oat-annual brome grassland (W of building envelope)

2.5 Hydrology

According to a wetland delineation completed by Gallaway Enterprises, Inc., in 2004, the Project Area is an upland area that has a surrounding riparian vegetation area associated with Salmon Creek. No riparian habitat exists in the Project Area. According to the National Wetlands Inventory, Salmon Creek is a single-channel intermittent stream which runs west of the Project Area (Appendix C). The route of the stream channel was verified during the site surveys and the path of Salmon Creek is greater than 50 feet away from the building envelope.

According to review of Google Earth aerial imagery, the Salmon Creek stream channel becomes obstructed by ground disturbance 1.25 miles north of the Project Area, which limits the extent of its headwaters. Salmon Creek flows into Stillwater Creek approximately 0.25 miles downstream of the Project Area and continues unobstructed to the Sacramento River.

3.0 REGULATORY FRAMEWORK FOR BIOLOGICAL RESOURCES

This section describes the federal and state regulation of special-status species, waters of the United States, and other sensitive biological resources.

3.1 Federal Regulations

3.1.1 Federal Endangered Species Act

Section 9 of the federal Endangered Species Act of 1973 (ESA) prohibits acts that result in the “take” of threatened or endangered species. As defined by the Federal ESA, “endangered” refers to any species that is in danger of extinction throughout all or a significant portion of its current range. The term “threatened” is applied to any species likely to become endangered within the foreseeable future throughout all or a significant portion of its current range. “Take” is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Sections 7 and 10 of the federal ESA provide methods for permitting otherwise lawful actions that may result in “incidental take” of a federally listed species. Incidental take refers to take of a listed species that is incidental to, but not the primary purpose of, an otherwise lawful activity. Incidental take is permitted under Section 7 for projects on federal land or involving a federal action; Section 10 provides a process for non-federal actions. The act is administered by the U.S. Fish and Wildlife Service (USFWS) for terrestrial species.

3.1.2 Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Mitigation measures can be identified to avoid or minimize adverse effects on migratory birds.

3.2 State Regulatory Requirements

3.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) lists species of plants and animals as threatened or endangered. Projects that may have adverse effects on state-listed species require formal consultation with CDFW. “Take” of protected species incidental to otherwise lawful activities may be authorized under Section 2081 of the California Fish and Game Code. Authorization from the CDFW is in the form of an Incidental Take Permit, and measures can be identified to minimize take. CDFW Species of Special Concern are considered under the CESA.

3.2.2 Birds of Prey

Under Section 3503.5 of the California Fish and Game Code, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird, except as otherwise provided by this code or any regulation adopted pursuant thereto. Project features will be implemented to protect nesting migratory birds and birds of prey to comply with this code.

3.2.3 Fully Protected Species

California statutes also accord “fully protected” status to a number of specifically identified birds, mammals, reptiles, amphibians, and fish. These species cannot be “taken,” even with an incidental take permit (California Fish and Game Code, Sections 3505, 3511, 4700, 5050, and 5515).

3.2.4 Riparian Communities in California

U.S. Fish and Wildlife Service mitigation policy identifies California’s riparian habitats as belonging to resource Category 2, for which no net loss of existing habitat value is recommended (46 FR 7644, January 23, 1981). Riparian communities have a variety of functions, including providing high-quality habitat for resident and migrant wildlife, streambank stabilization, and runoff water filtration. Throughout the United States, riparian habitats have declined substantially in extent and quality compared with their historical distribution and condition. These declines have increased concerns about dependent plant and wildlife species, leading federal agencies to adopt policies to arrest further loss. CDFW has listed select riparian habitats as “Species of Special Concern” that must be addressed during CEQA and NEPA project analysis.

3.2.5 Migratory Birds

The California Fish and Game Code, Section 3513, states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA. Project features will be implemented to protect nesting migratory birds and birds of prey to comply with this code.

4.0 BIOLOGICAL SITE SURVEY

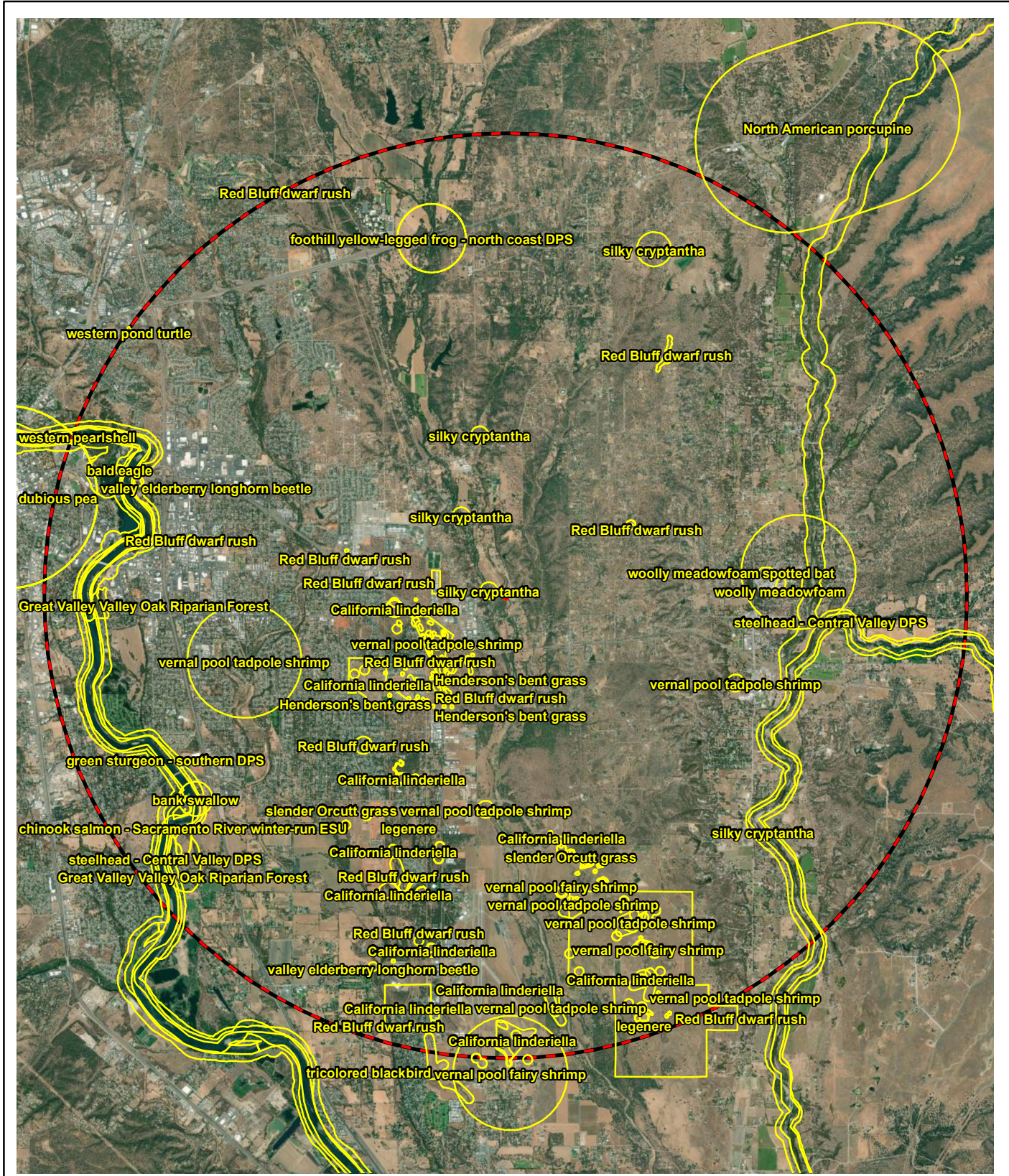
4.1 Pre-Survey Review

Special-status plant and animal species and sensitive habitats that have the potential to occur within the Project Area were determined, in part, by reviewing agency databases, literature, and other relevant sources. The following information sources were reviewed to aid this determination:

- Enterprise, California, USGS 7.5-minute quadrangle;
- Aerial photography of the Project Area and vicinity;
- The U.S. Fish and Wildlife Service (USFWS) official list of endangered and threatened species that may occur, or be affected by projects in Appendix C;
- The California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) (California Department of Fish and Wildlife 2023a) records for the Olinda, California, USGS 7.5-minute quadrangle and the eight surrounding quadrangles in Figure 9;
- The California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants (California Native Plant Society 2023) records for the Enterprise, California, USGS 7.5-minute quadrangle and the eight surrounding quadrangles;
- California Wildlife Habitat Relationships (CWHR) System (California Department of Fish and Wildlife 2021) on Figure 2;
- GIS shapefiles of designated critical habitat from the USFWS Critical Habitat Portal website;
- CDFW publications including State and Federally Listed Endangered, Threatened and Rare Plants of California (California Department of Fish and Wildlife 2023b); State and Federally Listed and Threatened Animals of California (California Department of Fish and Wildlife 2023c); and Special Animals List (California Department of Fish and Wildlife 2021d); and
- Pertinent biological literature including Bird Species of Special Concern in California (Shuford and Gardali 2008).

4.2 Survey Methods

A habitat assessment survey was completed within the Project Area to document site conditions. The survey was completed on July 10 and July 18, 2023. The site survey involved identifying habitat types within the Project Area. Any habitat types or specific habitat characteristics for potentially occurring special-status species were documented and photographed. All wildlife species and plant species observed during the survey were documented.



- CNDDB Occurrence
- Study Area
- 5-Mile Buffer Around Study Area

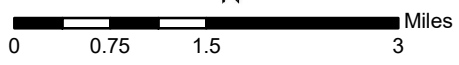


FIGURE 9
 CNDDB OCCURRENCES
 STILLWATER RANCH LOT 7
 REDDING, CALIFORNIA

SOURCE: MAXAR 2022 AERIAL PHOTOGRAPH; CDFW CNDDB JULY 2023

4.3 Survey Results

No special-status species were observed onsite during the survey. The following wildlife species were observed during the survey:

- Western fence lizard (*Sceloporus occidentalis*)
- Scrub jay (*Aphelocoma coerulescens*)
- Anna's hummingbird (*Calypte anna*)

No special-status plant species were observed during the survey. A large majority of the Project Area is graded house pad which is void of vegetation. The following plant species were observed surrounding the house pad within the Project Area:

- Wild oat (*Avena fatua*)
- Yellow star thistle (*Centaurea solstitialis*)
- Valley oak (*Quercus lobata*)
- Blue oak (*Quercus douglassii*)
- Mimosa tree (*Albizia julibrissin*)
- Tree of heaven (*Ailanthus altissima*)
- Foothill pine (*Pinus sabiniana*)
- Interior live oak (*Quercus wislizeni*)

5.0 POTENTIAL IMPACTS TO BIOLOGICAL RESOURCES

5.1 Special-Status Plant Species

5.1.1 Habitat Assessment

Special-status plant species include plants that are (1) designated as rare by CDFW or USFWS or are listed as threatened or endangered under the California Endangered Species Act (CESA) or Endangered Species Act (ESA); (2) proposed for designation as rare or listing as threatened or endangered; (3) designated as state or federal candidate species for listing as threatened or endangered; and/or (4) ranked as California Rare Plant Rank (CRPR) 1A, 1B, 2A, or 2B.

A list of regionally occurring special-status plant species was compiled based on a review of pertinent literature, the results of the field surveys, and a review of the USFWS species list, California Natural Diversity Database (CNDDDB) database records (Figure 9), and a nine-quad search (Enterprise and surrounding quads) of CNPS database records.

For each special-status plant species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat. The habitat assessment is provided in Table 1.

**Table 1
POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES**

Common Name	Scientific Name	Status (CDFW/CA/Fed)	Habitat Description	Potential to Occur in Project Area?	Project Impact
Dubious pea	<i>Lathyrus sulphureus</i> var. <i>argillaceus</i>	3	Oak woodlands, shrubby or grassy areas	Yes	Proposed disturbance area (building envelope) consists of graded construction fill with no vegetation present onsite. Species was not observed in during survey. Potential to occur in surrounding grassland and oak woodland. Would not be disturbed with implementation of invasive species control. No impact.
Redding checkerbloom	<i>Sidalcea celata</i>	3	Open oak woodlands	No	Proposed disturbance area (building envelope) consists of graded construction fill with no vegetation present onsite. Species was not observed in Project Area during survey. Potential to occur in surrounding grassland and oak woodland. Would not be disturbed with implementation of invasive species control. No impact.
Woolly meadowfoam	<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>	4.2	Marshes and swamps, edge of vernal pools	No	No wetland or vernal pool habitat in Project Area. No impact.
Red Bluff dwarf rush	<i>Juncus leiosperums</i> var. <i>leiosperums</i>	1B.1	Vernal pools in chaparral, woodland, meadows, valley and foothill grassland; up to 3000 feet elevation	No	No wetland or vernal pool habitat in Project Area. No impact.
Henderson's bent grass	<i>Agrostis hendersonii</i>	3.2	Vernal pools in valley and foothill grasslands	No	No wetland or vernal pool habitat in Project Area. No impact.
Big-Scale balsamroot	<i>Balsamorhiza macrolepis</i>	1B.2	Open rocky/grassy slopes within foothill woodland, valley grassland communities	No	Site lacks rocky, grassy slopes typical of habitat for this species. No impact.

**Table 1
POTENTIALLY OCCURRING SPECIAL-STATUS PLANT SPECIES**

Common Name	Scientific Name	Status (CDFW/ CA/Fed)	Habitat Description	Potential to Occur in Project Area?	Project Impact
Sulphur Creek brodiaea	<i>Brodiaea matsonii</i>	1B.1	Endemic to upper reaches of Sulphur Creek in Redding, CA	No	Site outside of species range. No impact.
Silky cryptantha	<i>Cryptantha crinite</i>	1B.2	Gravelly streambeds in cismontane woodland, lower coniferous forest, riparian forest, valley and foothill grasslands	No	Although this species occurs nearby in Stillwater Creek (Figure 9), no habitat occurs in the Project Area. No impact.
Legenere	<i>Legenere limosa</i>	1B.1	Vernal pools	No	No wetland or vernal pool habitat in Project Area. No impact.
Slender Orcutt grass	<i>Orcuttia tenuis</i>	1B.1 / SE / FT	Vernal pools	No	No wetland or vernal pool habitat in Project Area. No impact.
Pink creamsacs	<i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>	1B.2	Strictly endemic to ultramafic soils within chaparral, woodland, meadows, valley and foothill grassland, elevation up to 3000 feet.	No	Site lacks ultramafic soils (see Appendix B). No impact.
Jepson's horkelia	<i>Horkelia dancifolia</i> var. <i>indicta</i>	1B.1	Broadly endemic to ultramafic soils in dry open areas	No	Site lacks ultramafic soils (see Appendix B). No impact.

Key: Federally Threatened (FT); CNPS Rare Plant Ranks: 1B = Rare, threatened, or endangered in California and elsewhere; 2B= Rare, threatened, or endangered in California, but more common elsewhere; Threat Ranks: .1 = Seriously endangered in California (over 80% of occurrences threatened-high degree and immediacy of threat); .2 = Endangered in California (20-80% occurrences threatened); .3 = Not very threatened in California (<20% of occurrences threatened / low degree of threat or no current threats known)

Of the twelve special-status plants species evaluated, two were determined to have a potential to occur, while the rest were determined to have no potential or unlikely to occur due to lack of habitat onsite. Species determined to have potential to occur within the Project Area include:

- Dubious pea (*Lathyrus sulphureus* var. *argillaceus*)
- Redding checkerbloom (*Sidalcea celata*)

5.1.2 Project Impact Discussion

Rare Plants

In general, projects could potentially impact rare plants through direct or indirect effects from proposed activities. In undisturbed landscapes, construction activities could result in the removal of native vegetation which could remove or kill plants. Indirect impacts from construction projects can potentially include displacement of special-status plants due to introduction of non-native species that could alter the habitat quality onsite, resulting in loss of rare plants.

The proposed activities include construction of a house and associated driveway and landscaping structures within the building envelope. The building envelope consists of imported soil that has been regularly mowed to ground level since its installation (see Figure 3). Little to no vegetation would be disturbed by the proposed activities.

The vegetation communities that occur in the Project Area, outside of the building envelope, could potentially provide habitat for dubious pea (*Lathyrus sulphureus* var. *argillaceus*) and Redding checkerbloom (*Sidalcea celata*). No disturbance is proposed in these areas and development will be limited to the boundary of the building envelope, which lacks vegetation. Therefore, the project would have **no impact** on the potentially occurring rare plant species.

Several non-native invasive plant species occur onsite in dense populations, including yellow star thistle (*Centaurea solstitialis*), which has already reduced the habitat quality for native vegetation. While these species occur outside of the proposed building envelope, they are adjacent to areas where construction will occur. Invasive plant species control is recommended during any development onsite to control the spread of these species to other undisturbed areas in the surrounding landscape.

5.2 Special-Status Animal Species

Special-status animal species include species that are (1) listed as threatened or endangered under the CESA or the ESA; (2) proposed for federal listing as threatened or endangered; (3) identified as state or federal candidates for listing as threatened or endangered; and/or (4) identified by the CDFW as Species of Special Concern or California Fully Protected Species.

A list of regionally occurring special-status wildlife species was compiled based on a review of pertinent literature and consultations with the USFWS Information for Planning and Consultation (iPAC) database (Appendix C), California Wildlife Habitats Relationship (CWHR) system (Figure 2), and California Natural Diversity Database (CNDDDB) database records (Figure 9). For each special-status wildlife species, habitat and other ecological requirements were evaluated and compared to the habitats in the study area and immediate vicinity to assess the presence of potential habitat. A listing of the habitat assessments is provided in Table 2.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS ANIMAL SPECIES**

Common Name	Scientific Name	Status (CDFW/CA/Fed)	Habitat Description	Potential to Occur in Project Area?	Project Impact
Birds					
Tricolor blackbird	<i>Agelaius tricolor</i>	SSC/ST/--	Near marshes and canals with dense emergent vegetation	No	Lack of dense marshes for breeding. No impact.
Bank swallow	<i>Riparia riparia</i>	--/ST/--	Nests in vertical sandy stream or riverbanks; usually colonial.	No	Lack of vertical or sandy banks. No impact.
Bald eagle	<i>Haliaeetus leucocephalus</i>	FP/SE/FDR	Near open water, nesting habitat consists of large trees usually within riparian forest.	No	Lack of nesting and open water onsite. No impact.
Northern spotted owl	<i>Strix caurina</i>	--/ST/FT	Old growth mixed conifer and hardwood forest with dense, multi-layer canopy.	No	Lack of nesting, roosting, or foraging habitat. No impact.
Mammals					
Spotted bat	<i>Euderma maculatum</i>	SSC/--/--	Open, dry habitats, rocky areas for roosting. Roosts in vertical cliffs and ledges, forage near a water source.	No	Lack of roosting habitat onsite. Foraging habitat absent most of year when stream is dry. No impact.
Reptiles & Amphibians					
Western pond turtle	<i>Actinemys marmorata</i>	SSC/--/--	Aquatic; bask on submerged logs and retreat to deep, standing water; may lay eggs in adjacent upland areas	No	Aquatic habitat is outside of Project Area. Grassland generally provides nesting habitat; however nearby Salmon Creek dries annually before nesting season occurs so unlikely for upland areas onsite to provide nesting habitat. No impact.
Foothill yellow-legged frog	<i>Rana boylei</i>	SSC/--/--	Perennial, fast-flowing streams; deposit eggs on underside of rocks; may migrate in winter within streams up to 1 km. Does not leave aquatic habitat.	No	Nearby Salmon Creek may provide habitat. However, there is no aquatic habitat within 50-feet of Project Area. No impact.
Western spadefoot toad	<i>Spea hammondi</i>	--/--/--	Grasslands, oak woodlands, chaparral, and vernal pool habitat for breeding.	No	Site lacks vernal pools, ponds with seasonally moist soils. No impact.

**Table 2
POTENTIALLY OCCURRING SPECIAL-STATUS ANIMAL SPECIES**

Common Name	Scientific Name	Status (CDFW/ CA/Fed)	Habitat Description	Potential to Occur in Project Area?	Project Impact
Fish and Aquatic Vertebrates					
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	--/FT	Drainages within the Sacramento and San Joaquin watersheds including the Sacramento River.	Yes	Nearby Salmon Creek may provide habitat. Creek is 50+ feet outside of building envelope. Salmon Creek is low quality habitat for fish migration or passage.
Sacramento River winter-run Chinook salmon	<i>Oncorhynchus tshawytscha</i> pop. 7	--/SE/FE, EFH	Drainages within the Sacramento and San Joaquin watersheds including the Sacramento River. Essential Fish Habitat (EFH) includes Sacramento River and all tributaries.	Yes	No impacts to EFH because streams and riparian habitat are outside of Project Area. No impact.
Green sturgeon	<i>Acipenser medirostris</i> pop.1	--/--/FT	Pop. 1 spawns in the mainstem lower Sacramento River below, at times above the Red Bluff Diversion Dam and lower Feather and Yuba Rivers.	No	Nearby Salmon Creek lacks sufficient depth for species. No impact.
Invertebrates & Insects					
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	--/--/FT	Vernal pools	No	No vernal pool habitat in Project Area. No impact.
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	--/--/FE		No	No vernal pool habitat in Project Area. No impact.
Monarch butterfly	<i>Danaus plexippus</i>	--/--/CE	Widespread, migratory; roost in tree foliage, utilize milkweed (<i>Asclepias</i> sp.) as host plant	Yes	Milkweed could occur in grassland but would not be disturbed by project activities. No impact.
Valley Elderberry longhorn beetle	<i>Desmocerus californicus dimorphus</i>	--/--/FT	Dependent on host plant elderberry.	No	Lack of Elderberry in Project Area as observed during survey. No impact.
<p>Key: Federally Endangered (FE); Proposed Federally Endangered (PFE), Federally Threatened (FT); Proposed Federally Threatened (PFT); Federal Candidate (FC); Federally Delisted and Under Review (FDR); California Endangered (CE); Proposed California Endangered (PCE); California Threatened (CT); Proposed California Threatened (PCT); California Fully Protected (CFP); California Species of Special Concern by DFG (CSC); California Sensitive (CS). CNPS Rare Plant Ranks: 1B = Rare, threatened, or endangered in California and elsewhere; 2B= Rare, threatened, or endangered in California, but more common elsewhere; Threat Ranks: .1 = Seriously endangered in California (over 80% of occurrences threatened-high degree and immediacy of threat); .2 = Endangered in California (20-80% occurrences threatened); .3 = Not very threatened in California (<20% of occurrences threatened / low degree of threat or no current threats known)</p>					

Of the fifteen special-status species evaluated, three were determined to have a potential to occur, while the rest were determined to have no potential or are unlikely to occur. Species determined to have potential to occur within the Project Area are discussed below, while species that were determined to be absent are not discussed further. Special-status wildlife species that are known to occur, or have the potential to occur, within the Project Area include:

- Monarch butterfly (*Danaus plexippus*)
- Central Valley steelhead (*Oncorhynchus mykiss*)
- Sacramento River winter-run Chinook salmon (*Oncorhynchus tshawytscha* pop. 7)

Monarch butterfly

Danaus plexippus

The monarch butterfly is widely distributed across the United States, occurring in a variety of urban and rural habitat types, especially those that support milkweed (*Asclepias* spp.) and other flowering forbs that the species forages upon for nectar. Monarchs lay eggs on plants in the milkweed family (Asclepiadaceae) and larvae feed only on milkweeds (Xerces 2021). During breeding and migration, adult monarch butterflies require a diversity of blooming nectar resources, which they feed on throughout their migration routes and breeding grounds (spring through fall).

In 2014, monarchs were petitioned to be listed under the federal ESA. In December 2020, the USFWS found that listing was warranted but precluded by other listing actions on its National Priority List. The monarch is currently slated to be listed in 2024. In California, monarchs are included on the CDFW Terrestrial and Vernal Pool Invertebrates of Conservation Priority list.

Migratory western monarchs depart their overwintering groves in mid-winter to early-spring. Throughout the spring and summer, monarchs breed, lay their eggs on milkweed, and migrate across multiple generations within California and other states west of the Rocky Mountains. The USFWS has identified geographic “Recommended Management Timing Windows” based on the timing of breeding and larval deposition in relation to their migratory route. The Project Area occurs in the summer breeding zone for monarchs, which has a recommended management window occurring between November 1 and April 1 annually.

Due to their reliance on milkweed for egg deposition and larval development, habitat is considered present if any milkweed is growing onsite. The proposed building envelope is void of vegetation and therefore does not support milkweed. There is potential for milkweed to grow in the Blue Oak Woodland and Wild Oat-Annual Brome Grassland that occurs outside of the building envelope. No disturbance is proposed outside of the building envelope. Therefore, the project will have **no impact** on monarch butterflies.

Central Valley Steelhead Distinct Population Segment (DPS)

Oncorhynchus mykiss pop. 11

Central Valley steelhead include naturally spawned anadromous steelhead and steelhead from three major Fish Hatchery Programs (NOAA Steelhead, 2021). The population can be found throughout the Sacramento and San Joaquin rivers and their tributaries. This, in part, is attributed to the natural and man-made impassable barriers within the rivers (i.e., Shasta and Keswick dams) and this DPS excludes fish originating from San Francisco and San Pablo bays. Central Valley

steelhead are confined to non-historic spawning habitat due to present barriers, but population numbers have improved within their range since 2010.

Steelhead adult and juveniles prefer habitat with submerged boulders and clay, undercut banks, and large woody debris to provide feeding opportunities and shelter. The adult population migrations occur in the winter, beginning during peak flows between December and February, and they typically spawn from February to April. Most juveniles feed and grow in their natal streams for one or two years before migration in late December through the beginning of May, peaking in mid-March. Juveniles and resident adults prefer complex habitat boulders, submerged clay and undercut banks, and large woody debris that provide feeding opportunities, segregation of territories, a refuge from high velocities, and cover from predators.

Salmon Creek is a tributary of Stillwater Creek, which does provide potential habitat for steelhead (Haney 2015). The status of this species in Salmon Creek is unknown. Salmon Creek is an intermittent stream which typically dries enough to lose connectivity with Stillwater Creek between March and April, according to Google Earth aerial imagery and personal observations by the landowner. There is potential for steelhead resident adults or juveniles to enter lower reaches of Salmon Creek during periods of high flow. However, the section of stream adjacent to the site provides low-quality habitat because it lacks riparian canopy which would provide shade cover and woody debris that are important components for steelhead habitat. Additionally, fish passage is obstructed 1.25 miles upstream due to channel disturbance. These fish could inhabit downstream Stillwater Creek during the spring through fall; however, no habitat occurs onsite during most of the year when Salmon Creek is dry.

A buffer between the stream and the building envelope are included in the design (Appendix A). No disturbance is proposed outside of the building envelope. No impacts to Salmon Creek or any riparian habitat would be disturbed. Therefore, the project will have **no impact** on steelhead.

Sacramento winter-run Chinook salmon

Oncorhynchus tshawytscha pop.7

The Sacramento winter-run Chinook salmon includes all spawned winter-run Chinook salmon from the Sacramento River and its tributaries (NOAA 2021). Winter-run Chinook salmon historically ranged into the upper reaches of the Sacramento in areas of the McCloud, Pit, and Little Sacramento river systems. This population is now unable to access the historical ranges due to construction of Shasta and Keswick dams (USFWS Chinook, 2021). The current range includes the Project Area (CNDDB 2023e). The status of this species in Salmon Creek is unknown. Winter-run Chinook salmon begin migrating up the Sacramento River between December through May and remain until August, spawning in the summer months between April through August.

Similar to steelhead, winter-run Chinook may occur onsite during periods of high flow during the winter and early spring months. Salmon Creek does not provide spawning habitat because it is dry during the spawning season for winter-run Chinook. The section of stream adjacent to the site provides low-quality habitat because it lacks riparian canopy which would provide shade cover and woody debris that are important components for Chinook habitat. Additionally, fish passage is obstructed 1.25 miles upstream due to channel disturbance. There is no disturbance proposed outside of the building envelope, which is greater than 50-feet away from the stream channel. No impacts to Salmon Creek or any riparian habitat would be disturbed. Therefore, the project will have **no impact** on winter-run Chinook salmon.

5.3 Raptors and Other Migratory Birds

Raptor species (birds of prey) and migratory birds may nest in trees and other vegetation located within or in the immediate vicinity of the Project Area. All raptors and migratory birds, including common species and their nests, are protected from “take” under the California Fish and Game Code Section 3503 and 3503.5, and federal Migratory Bird Treaty Act (MBTA). Human presence and construction noise can lead to nest disturbance, which could ultimately result in nest abandonment by the adult birds and cause mortality of eggs or chicks. To ensure that no bird nest is disturbed by project activities, a survey by a qualified biologist is recommended prior to start of work to avoid impacts to nesting raptors and other migratory birds as described in Section 6.1.

5.4 Rare Natural Communities and Sensitive Habitats

Natural communities are evaluated using NatureServe’s Heritage Methodology, the same system used to assign global (“G”) and state (“S”) rarity ranks for plant and animal species in the CNDDDB. Natural communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes.

Communities respond to environmental changes and can be thought of as an indicator of the overall health of an ecosystem and its component species. Rare and sensitive natural communities are those communities that are of highly limited distribution. They may or may not contain rare, threatened, or endangered species. Based on the vegetation communities present onsite, there are no sensitive natural communities within the Project Area.

5.5 Critical Habitat and Essential Fish Habitat

Critical habitat in the state of California is considered, “...a specific geographic area that contains features essential for the conservation of a threatened or endangered species that may require special management and protection” (USFWS, 2017). According to the USFWS Critical Habitat Online Mapper, the Project Area is not located in Critical Habitat for any species. **No impact.**

Essential Fish Habitat (EFH) is designed by National Oceanic and Atmospheric Administration (NOAA) Fisheries as identified in Fisheries Management Plans to maintain healthy habitat for commercial and recreational fisheries. The Sacramento River and nearly all tributaries are included in the EFH for Chinook salmon. The project occurs greater than 50 feet outside of the Salmon Creek stream channel and there is little riparian habitat onsite. The project would have **no impact** on EFH.

6.0 RECOMMENDATIONS

Incorporating the following recommendations would avoid and minimize the potential environmental impacts from construction and long-term operation of the proposed residential development so that the project has no impact on sensitive biological resources.

6.1 Nesting Bird Preconstruction Survey

If noise-generating construction activities will occur during the nesting season for birds, a qualified biologist should conduct preconstruction surveys within seven days before these activities begin. If nesting birds are found, the CDFW will be notified and consulted. An appropriate buffer, as determined by CDFW and the qualified biologist, will be placed around the nest until the young have fledged. If an active raptor nest is found during the surveys, no construction activities shall occur within 250 feet of the nest unless a different buffer zone is approved by CDFW. Construction may resume once the young have left the nest or as approved by the qualified biologist.

6.2 General Wildlife Measures

Construction operations shall cease at night onsite to avoid interference with nocturnal wildlife dispersal or foraging.

Illumination on the proposed residences shall be directed downward to contain light such that the ongoing use of the site does not cause ongoing light pollution to the Salmon Creek corridor.

Construction equipment shall be inspected by the operator each day to ensure wildlife is not present. If any animals are encountered, then they shall be allowed to leave on their own accord or humanely relocated to appropriate habitat outside of harm's way.

6.3 Plant Conservation

Invasive species control measures shall be implemented during construction onsite. After working onsite where non-native invasive species are present, wash construction equipment including tracks or tires to remove plant materials prior to entering another site where these species do not already occur.

7.0 SUMMARY

The surrounding undisturbed oak woodland provides nesting habitat for songbirds and raptors. The project would have no impacts to nesting birds with implementation of standard preconstruction nesting bird surveys prior to construction within the building envelope (see Section 6.1).

The creek corridor may provide general habitat for common wildlife species. Therefore, recommendations in Section 6.2 would avoid impacts from project activities during construction and long-term occupation of the Project Area.

The surrounding grassland and blue oak woodland could potentially provide habitat for special-status species including monarch butterfly and two rare plant species, dubious pea (*Lathyrus sulphureus* var. *argillaceus*) and Redding checkerbloom (*Sidalcea celata*). Because no ground disturbance or construction is proposed in these areas, the project would result in **no impact** to these special-status species.

Invasive plant species occur surrounding the building envelope. Therefore, invasive species control is recommended (see Section 6.3) so the project has **no impact** on native plant species.

The building envelope will remain 50 or more feet away from the Salmon Creek stream channel. Therefore, there will be **no impact** to the aquatic environment or fish species including steelhead or Chinook salmon.

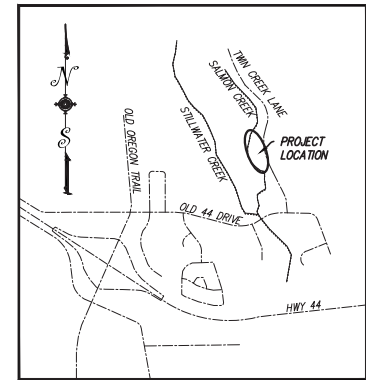
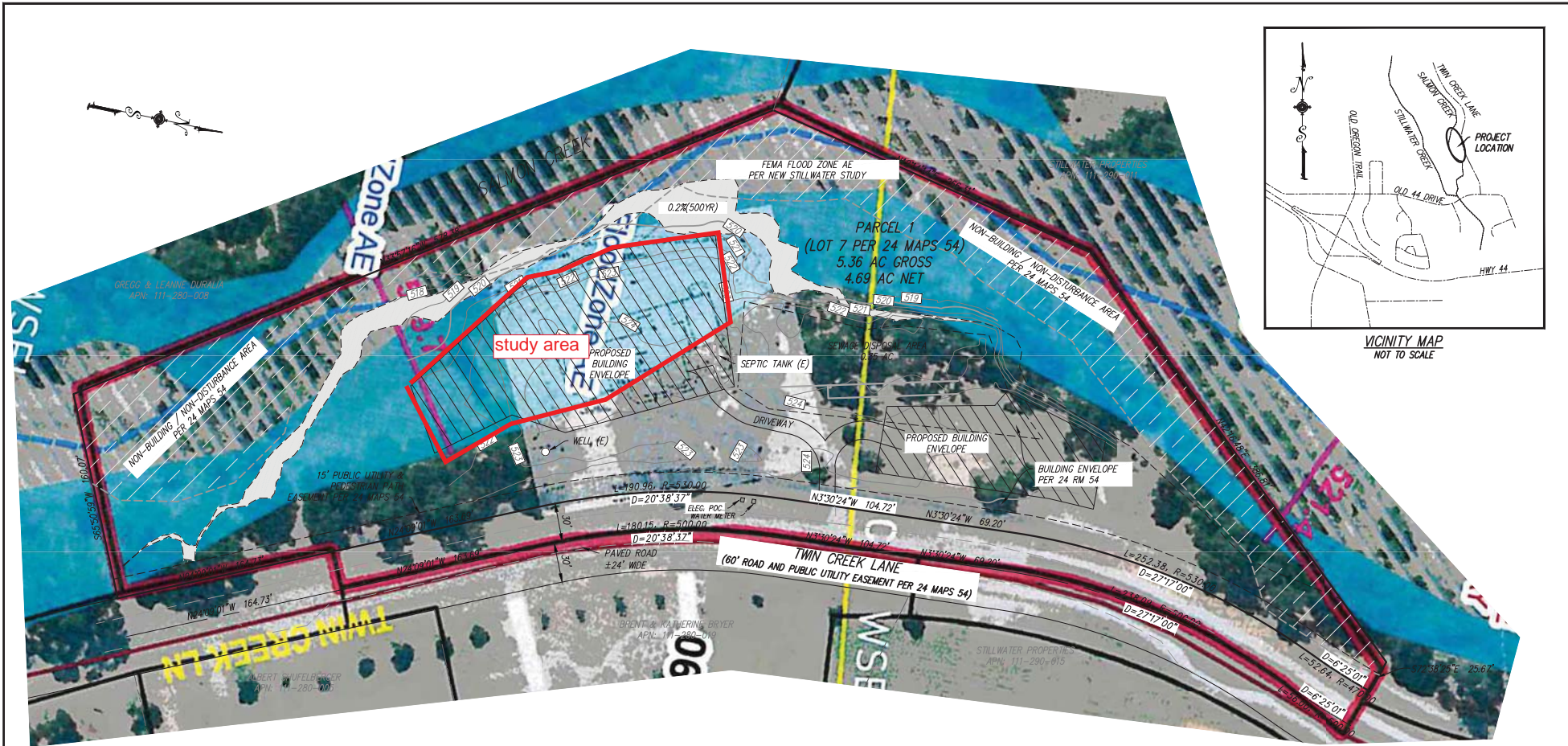
8.0 REFERENCES

- California Department of Fish and Wildlife (CDFW). 2023a. California Interagency Wildlife Task Group. 2023. CWHR version 9.0 personal computer program. Sacramento, CA.
- CDFW 2023b. State and Federally Listed Endangered, Threatened and Rare Plants of California. Accessed July 2023.
- CDFW. 2023c. State and Federally Listed and Threatened Animals of California. Accessed July 2023.
- CDFW. 2023d. Special Animals List. July 2023. Accessed July 2023.
- Calflora. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2021. Berkeley, California. <https://www.calflora.org/> (Accessed: Aug 10, 2021).
- California Native Plant Society, Rare Plant Program. 2023a. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed August 10th, 2021].
- DeBecker, S. and A. Sweet. 1988. Crosswalk between WHR and California vegetation classifications. Pages 21-39 in: K.E. Mayer, and W.F. Laudenslayer, eds. 1988. A Guide to Wildlife Habitats of California. State of California, The Resources Agency, Department of Forestry and Fire Protection, Sacramento, California.
- Haney, Eric. Steelhead Abundance - Linear Features [ds185]. CDFW. 03/25/2015. Biogeographic Information and Observation System (BIOS). Retrieved July 2023.
- Helm, B. P. 1998. Biogeography of eight large branchiopods endemic to California. Pp. 124–139 in C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferrin, Jr., and R. Ornduff, eds. Ecology, Conservation, and Management of Vernal Pool Ecosystems—Proceedings from a 1996 Conference. California Native Plant Society, Sacramento, California.
- Holland, R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. State of California, The Resources Agency, Department of Fish and Game, Sacramento, California. Available online at: <https://www.cal-ipc.org/docs/ip/inventory/pdf/HollandReport.pdf>. Accessed October 18th, 2021.

- Johnston, Dave. Tatarian, Greg. Pierson, Elizabeth. Trapp, Gene. 2004. California Bat Mitigation Techniques, Solutions, and Effectiveness. Published December 29, 2004. HT Harvey & Associates.
- Mayer, K.E., and William F. Laudenslayer, Jr., Editors. 1988. A Guide to Wildlife Habitats of California. California Department of Forestry and Fire Protection. 166 pp.
- National Oceanic and Atmospheric Administration (NOAA), United States Department of Commerce, 2021. Central Valley Steelhead. <https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon>. Accessed November 9th, 2021.
- National Oceanic and Atmospheric Administration (NOAA), United States Department of Commerce, 2021. Central Valley Spring-Run Chinook Salmon. <https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon>. Accessed November 9th, 2021.
- National Oceanic and Atmospheric Administration (NOAA), United States Department of Commerce, 2021. Sacramento River Winter-Run Chinook Salmon. <https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon>. Accessed November 9th, 2021.
- Natural Resources Conservation Service (NRCS), United States Department of Agriculture. Web Soil Survey. Available online at the following link: <http://websoilsurvey.sc.egov.usda.gov/>. Accessed: October 15th, 2021.
- Rogers, D. Christopher. Revision of the nearctic *Lepidurus* (Notostraca). *Journal of Crustacean Biology*, vol. 21, no. 4. (2001).
- Sawyer, J.O., T. Keeler-Wolf, J.M. Evens, 2009. A Manual of California Vegetation, 2nd Edition. California Native Plant Society Press, Sacramento, CA.
- Shasta County General Plan. Revised September 2004. Shasta County Department of Resource Management, Planning Division. Chapter 6.7. Pp 6.7.08.
- Shuford, W. D., and Gardali, T., editors. 2008. California Bird Species of Special Concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. *Studies of Western Birds* 1. Western Field Ornithologists, Camarillo, California, and California Department of Fish and Game, Sacramento. Accessed on July 17 and July 24, 2019.
- U.S. Fish and Wildlife Service. 2021. Critical Habitat - Salmon and Steelhead (all West Coast): Steelhead (California Central Valley DPS). USFWS West Coast Regional Office.

- U.S. Fish and Wildlife Service. 2021. Chinook Salmon. USFWS West Coast Regional Office. <https://wildlife.ca.gov/Conservation/Fishes/Chinook-Salmon>. Accessed on November 9th, 2021.
- U.S. Fish and Wildlife Service. 2007. Vernal Pool Fairy Shrimp 50Year Review: Summary and Evaluation. Sacramento Fish and Wildlife Office, Sacramento, California.
- Vaughan, T., O. O' Shea. 1967. Roosting ecology of the pallid bat, *Antrozous pallidus*. *Journal of Mammalogy*, 67: 91-102.
- Verts, B., L. Carraway (1998). *Mammals of Oregon*. Berkeley: University of California Press Berkeley / Los Angeles / London.
- Western Regional Climate center, 2021. Cooperative Climatological Data Summaries: Western Regional Climate Center, cited 2021: Redding Climate Summary. [Available https://wrcc.dri.edu/Climate/west_lcd.php]
- Xerces Society. August 31, 2021. Western Monarch Butterfly Section 7 Conservation Recommendations. (https://xerces.org/sites/default/files/publications/21-015_USFWSWesternMonarchConsRecs.pdf)
- Zika, Peter F. 2015, *Juncus leiospermus* var. *leiospermus*, in Jepson Flora Project (eds.) Jepson eFlora, Revision 3, /eflora/eflora_display.php?tid=60374, accessed on June 22, 2020.

Appendix A
Tentative Parcel Map



VICINITY MAP
NOT TO SCALE

PARCEL INFORMATION

APN: 111-280-007
 OWNERS: MARK & NGOC THAO CHRISTINE LEWS
 PHONE: (530) 949-1261
 MAILING ADDRESS:
 3254 LEMURIAN ROAD
 REDDING, CA 96002

MAP PREPARED BY:
 SHASTA LAND SURVEYING, INC.
 A PROFESSIONAL CORPORATION
 PHONE: (530) 515-4948
 MAILING ADDRESS:
 P.O. BOX 1021
 PALO CEDRO, CA 96073

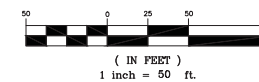


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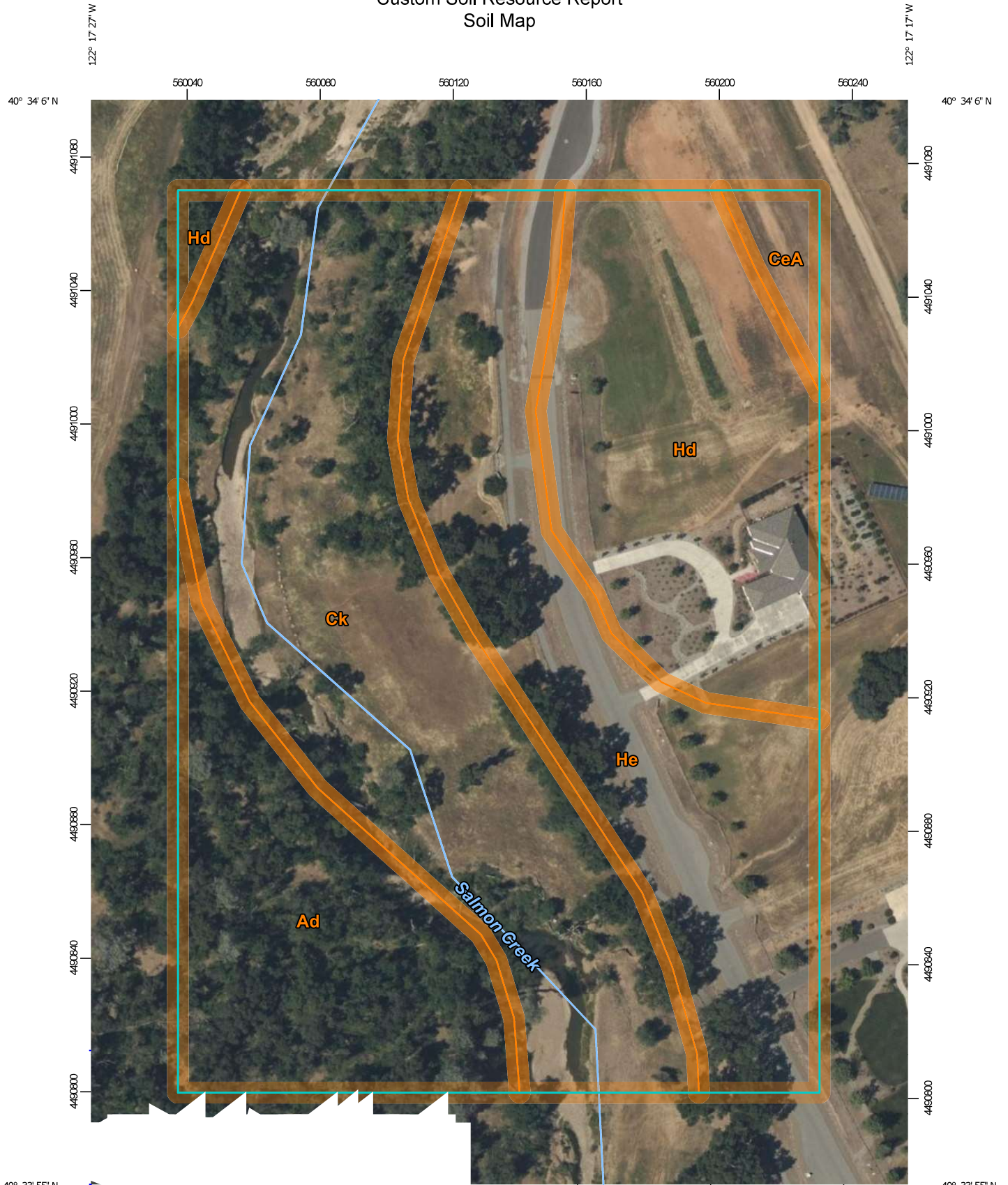
TENTATIVE PARCEL MAP

FOR
 MARK & NGOC THAO CHRISTINE LEWS
 BEING A SINGLE PARCEL, PARCEL MAP OF LOT 7 PER THE
 STILL WATER RANCH SUBDIVISION, UNIT 1 (24 MAPS 54) IN
 THE SOUTHWEST ¼ OF S.2, T.31N., R.4W., M.D.B.&M.
 IN THE UNINCORPORATED TERRITORY OF THE
 COUNTY OF SHASTA, STATE OF CALIFORNIA

GRAPHIC SCALE



Custom Soil Resource Report Soil Map

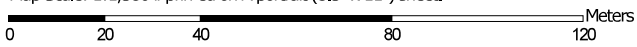


40° 33' 55" N

122° 17' 27" W



Map Scale: 1:1,580 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



United States Department of the Interior



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

In Reply Refer To:
Project Code: 2023-0106191
Project Name: Stillwater Ranch

July 18, 2023

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

(916) 414-6600

PROJECT SUMMARY

Project Code: 2023-0106191
Project Name: Stillwater Ranch
Project Type: Residential Construction
Project Description: Subdivision Lot 7 building envelope
Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.5668612,-122.2897692166942,14z>



Counties: Shasta County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 7 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

BIRDS

NAME	STATUS
Northern Spotted Owl <i>Strix occidentalis caurina</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1123	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Valley Elderberry Longhorn Beetle <i>Desmocerus californicus dimorphus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7850	Threatened

CRUSTACEANS

NAME	STATUS
Conservancy Fairy Shrimp <i>Branchinecta conservatio</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8246	Endangered
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened
Vernal Pool Tadpole Shrimp <i>Lepidurus packardii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2246	Endangered

FLOWERING PLANTS

NAME	STATUS
Slender Orcutt Grass <i>Orcuttia tenuis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1063	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Vestra
Name: Anna Prang
Address: 5300 Aviation Drive
City: Redding
State: CA
Zip: 96002
Email: aprang@vestra.com
Phone: 5302232585

31 July 2023

VESTRA Resources, Inc
5300 Aviation Dr.
Redding, CA 96002

ATTN: Anna Prang / Senior Biologist

SUBJ: Cultural Resource Inventory of APN 111-280-007-000, within the Stillwater Ranch Subdivision in Shasta County, California

Dear Ms. Prang:

The following letter report presents the results of the Archaeological Inventory for a proposed building envelope (~1 acre) within APN 111-280-007-000, in the Stillwater Ranch Subdivision in Shasta County, California. The archaeological survey meets the state requirements defined by the California Environmental Quality Act (CEQA) of 1970, and the responsibilities codified in Public Resource Code sections 5097, and its implementing guidelines 21082 and 21083.2.

Introduction

The Stillwater Ranch residential subdivision is land located adjacent to the north side of Old 44 Drive, along Stillwater and Salmon Creeks, approximately 1/4 mile north of State Route 44, east of Redding in Shasta County, California. Proposed action for APN 111-280-007-000 involves the development of the property for residential use. The Project area encompasses approximately 1 acre on the Enterprise USGS 7.5' Quadrangle (Figure 1).

AnthropologyRx was retained by VESTRA Resources, Inc. to conduct a cultural resources inventory for the purpose of identifying cultural resources within the Project area. The scope of work for this project included three tasks: (1) archaeological records research at the Northeast Information Center (NEIC) in Chico CA, (2) field survey, and (3) preparation of a letter report documenting the results of the records search and the survey.

The archaeological field survey was conducted for this project was conducted on 14 July 2023 and the archaeological records search was completed on 20 July 2023. **No cultural resources were identified within the project area.** The project, as currently designed, is not anticipated to have an adverse effect on a cultural resource.

Regulatory Context

This section briefly discusses the nature and extent of State regulations that apply to the Project. As part of the compliance process the Project must comply with CEQA as amended; and its implementing regulations and guidelines, codified in Title 14 of the California Code of Regulations (CCR), which provide agencies guidance for compliance with environmental regulations.

The CEQA applies to certain projects requiring approval by State and/or local agencies. Property owners, planners, developers, as well as State and local agencies, are responsible for complying with CEQA's

requirements regarding the identification and treatment of historical resources. Applicable California regulations are found in California PRC Sections 5020 through 5029.5 and Section 21177, and in CEQA (CCR Sections 15000 through 15387). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (PRC Section 21084.1). A substantial adverse change includes demolition, destruction, relocation, or alteration that would impair the historical significance of a resource (PRC Section 5020.1). PRC Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the California Register of Historical Resource (CRHR) is presumed to be historically or culturally significant. If a resource is determined ineligible for listing on the CRHR, the resource is released from management responsibilities and a project can proceed without further cultural resource considerations.

Under CEQA, cultural resources that will be affected by an undertaking must be evaluated to determine their eligibility for listing in the CRHR (PRC Section 5024.1(c)). For a cultural resource to be deemed eligible for listing, it must meet at least one of the following criteria:

1. is associated with events that have made a significant contribution to the broad patterns of California History and cultural heritage; or
2. is associated with the lives of persons important to our past; or
3. embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic value; or
4. has yielded or is likely to yield, information important to prehistory or history.

The eligibility of archaeological sites is usually evaluated under Criterion 4 its potential to yield information important to prehistory or history. Whether or not a site is considered important is determined by the capacity of the site to address pertinent local and regional research themes. The process for considering cultural resources on CEQA projects is essentially linear, although in practice it may overlap or be compressed. Evaluating prehistoric properties involves four basic tasks: (1) development of an archaeological research design (2) field excavations, (3) laboratory analysis, and (4) report preparation and eligibility determination.

As the significance of cultural resources is best assessed with regard to environmental and cultural contexts, descriptions of the natural and cultural setting of the project region are presented below.

Background

Prehistory

Archeological studies have been largely confined to two areas within Shasta County; the Sacramento River and adjoining areas and the Pit River in and around Lake Britton. Much of the archaeological data that have been gathered over the past five decades of research has come from various archaeological excavations conducted in the region. These data have contributed to the knowledge of local archaeological patterns and chronologies that span the past 8,000 years. The archaeological data for the region support the ethnographies of the Wintu and the linguistic patterns of the Penutian and Hokan stock.

Several cultural chronologies have been developed or applied within the study area (Farber and Neuenschwander 1984; Fredrickson 1973; Sundahl 1992, Willey and Phillips 1958). Farber and Neuenschwander (1984) advanced a very simple chronology for the region based on excavations at the Squaw Creek site. The chronology developed by Fredrickson (1973) for the North Coast Ranges has been applied to the region (c.f. Peak & Associates 1984). Fredrickson's periods are generally similar to those offered earlier by Willey and Phillips (1958) and have a wide area of applicability, however, as pointed out by Farber and Neuenschwander (1984) the latest prehistoric period defined by Fredrickson, the Emergent Period, implies aspects of cultural development that are not documented ethnographically or

archaeologically in much of Shasta County. Accordingly, Sundahl's (1992) chronology has been accepted as the standard for the region. Sundahl defined four cultural periods: the Borax Lake Pattern (8,000-5,000 B.P.), the Squaw Creek Pattern (5000-3000 B.P.), the Whiskeytown Pattern (4,000-1,500 B.P.), and the Shasta Pattern (post 1,500 B.P.).

Borax Lake Pattern (8,000-5,000 B.P.)

The earliest evidence for human occupation in Upper Sacramento Region generally falls between 8,000-5,000 B.P. Due to low population densities, a highly mobile hunter-gatherer lifestyle, and poor preservation of plant and animal remains, archaeological data from this period is limited. The region's early inhabitants lived in small inter-family groups and were part of the Hokan linguistic stock. Sites were small and tend to be found in various foothill and mountain habitats in Northern California. There are some flake-based industries from near Redding (Sundahl 1976), but none have been reported along the Pit River and its environs. Fluted points and long-stemmed versions of the Great Basin Stemmed series have been reported from Goose Lake (Hughes 1977) and Fall River Mills Valley (Peak 1979). Jensen and Farber (1982) excavated an encampment north of the project area near Macdoel characterized by Great Basin Stemmed series points.

Within Shasta County, Component I at Squaw Creek dates to the Borax Lake Period. At this time contacts with the North Coast Ranges and Central Valley are evident, with Borax Lake Wide Stems and other wide stem variant points present (Clewett 1977, Clewett and Sundahl 1983, Hildebrandt and Darcangelo 2008). The Lorenzen site (Baumhoff and Olmsted 1963), far up the Pit River drainage, also contained Borax Lake points. Kowta (1984) observed some relationship between site location for this temporal period and Elk distribution in northern California. Overall, the Borax Lake Culture was largely successful, occupying land from modern day Clear Lake, north into Oregon, and east to the Feather River (Hildebrandt and Darcangelo 2008).

Squaw Creek Pattern (5000-3000 B.P.)

The Squaw Creek Pattern is characterized by artifacts recovered from excavations in the northern and eastern foothills, Squaw Creek drainage, the upper Sacramento River drainage, and the southern Cascade Range. One of the earliest defined occupational phases during this period is the Pollard Flat phase from northern Shasta County (Basgall and Hildebrandt 1987). This period also characterizes the early portion (through about 3,000 B.P.) of Component II at Squaw Creek and Component III at Clickapudi (Clewett and Sundahl 1979, 1980, 1981, 1982). All of these components are quite similar in that a wide variety of tool forms are present, including a relatively high frequency of non-utilitarian tools, reflecting a variety of activities at the site. Projectiles, such as the Squaw Creek Contracting Stem atlatl dart point, leaf-shaped projectile points, McKee Unifaces, shaped handstones, and decorated portable rocks are typical of this period (Hildebrandt and Darcangelo 2008). Basgall and Hildebrandt (1987:445) interpret this as reflecting a rather stable version of a forager settlement/subsistence strategy wherein a group moves regularly from one base camp to another located in areas where resources are readily obtained near the base camp, and suggest that the sites were occupied for relatively lengthy periods each year because a long-lasting warm-dry interval had created a favorable ecological situation (West 1987:36-55). The decrease in forager mobility is also seen in by the formation of larger winter habitation sites (Hildebrandt and Darcangelo 2008).

Whiskeytown Pattern (4,000-1,500 B.P.)

The Whiskeytown Pattern overlaps the Squaw Creek Pattern by 1,000 years. This period is represented by the latter part of Component II at Squaw Creek, all of Component II at Clickapudi and the Vollmers phase in the Sacramento Canyon. This phase is characterized by the continued use of the atlatl with large and medium-sized Clickapudi Series corner-notched projectile points, the introduction of portable bowl

mortars and notched stone fishing net sinkers, and an increase in the use of riverine environments (Hildebrandt and Darcangelo 2008; Sundahl 1992).

There is a notable increase in the number of sites during this period and a reduced intensity of occupation at individual sites, accompanied by a greater diversity of artifact assemblages between sites. Basgall and Hildebrandt (1987:449) suggest that this represents a greater reliance on a fission-fusion adaptive strategy wherein the population gathered in large residential base camps in the fall and winter, but in the spring divided into small groups that moved regularly to favored collection areas. Therefore, the majority of sites dating to this period reflect the small, specialized, resource collection camps. Winter base camps include well-developed middens with a diverse artifact assemblage and non-utilitarian artifacts are common (Hildebrandt and Darcangelo 2008).

Shasta Pattern (Post 1,500 B.P.)

The Shasta Pattern marks the arrival of the Wintu people to the region approximately 1,300 years ago (Meighan 1955). Prior to the arrival of this linguistically and culturally different group of people to the area, adaptive changes in the local population's technology began as the environment became cooler and wetter. The Wintu arrived in the area with technology already adapted to a riverine environment and quickly expanded their territory (Sundahl 1992).

The introduction of the bow and arrow occurs during this period. There appears to be less emphasis on big game hunting and more emphasis on vegetable food collecting and processing (Meighan 1955). Archaeological investigations at many sites in what is now Shasta Lake describe ashy middens located on the stream terraces with house pits, small projectile points (Desert Side-Notched and Gunther series, more commonly referred today as the Tolowat series), food remains from mussels shells, bi-pointed fish gorges and tipped harpoons, bone gaming pieces, shells, beads, ornaments, and vast quantities of fire cracked rock. These types and quantities of artifacts are found in large, permanent villages that were inhabited by the Wintu (Hildebrandt and Darcangelo 2008; Sundahl 1992).

Ethnography

Shasta County is home to five major linguistically related Native American tribes: the Wintu, Yana, Shasta, Achumawi and Atsugewi. The Project Area is within lands traditionally occupied by the Wintu (Du Bois 1935; Kroeber 1925; Lapena 1978). The following ethnographic summary is not intended as a thorough description of Wintu culture but instead is meant to provide a background to the present cultural resource investigation with specific references to the Project Area. In this section, the past tense is sometimes used when referring to native peoples because this is a historical study. This convention is not intended to suggest that Wintu people only existed in the past. To the contrary, the Wintu have strong cultural and social identities today.

The Wintu are the northernmost dialectical groups of the Wintun, whose territory roughly incorporates the western side of the Sacramento Valley from the Carquinez Straits north to include most of the upper Sacramento River drainage, the McCloud River, and the lower reaches of the Pit River (Kroeber 1925:348). The length of the Wintun territory brought about a diverse social environment and a wealth of trade opportunities (Kroeber 1925:357).

The Wintu people are from the Penutian linguistic stock, which are thought to have migrated from the north approximately 1,300 years ago. They brought with them a more sedentary, riverine focused lifeway (Sundahl 1992). The Wintu augmented riverine protein resources by hunting large game and small mammals (Du Bois 1935:9-18). Terrestrial plant foods were weighted toward the acorn, and the seasonal procurement of vegetable foods occurred throughout the territory (Lapena 1978:338; Du Bois 1935:18).

Villages were usually situated along rivers and streams or close to springs where reliable water supplies allowed a semi-permanent occupation. Major villages were located along the river banks, with locations oriented to higher spots on the natural levees. Smaller villages tended to be along the tributary streams and near springs. Cultural resources surveys in the region have demonstrated that there was very heavy use of tributary streams and other areas at a distance from the main river, while early ethnographies had emphasized the concentration of population along the Sacramento (Sundahl 1992; Du Bois 1935).

Based on the results of previous survey work within the general region (e.g., Jensen 1994; 1996; J. Johnson 1984; K. Johnson 1974), the range of Native American site types for the general area included the following:

- Surface scatters of lithic artifacts and debitage, often but not always associated with dark brown to black "midden" deposits, resulting from village encampments. Typically, such sites are located adjacent or close to water sources, such as Stillwater Creek.
- Surface scatters of lithic artifacts and debitage without associated middens, resulting from short-term occupation and/or specialized economic activities.
- Bedrock milling stations, including both mortar holes and metate slicks, located in areas where bedrock is exposed, particularly along stream channels.
- Petroglyphs, especially "pitted" or "cupped" bedrock outcrops.
- Isolated finds of aboriginal artifacts and flakes.

History

Although Spanish explorers and missionaries settled in California in 1769, they remained on the coast, leaving the northeast corner of the state for later exploration. For more than half a century after the Spanish occupied California, Shasta County remained locked in its geographic isolation, a land unknown to all Euro-Americans. Mexico established its independence from Spain in 1821, California became a semi-independent colony of the new Mexican Republic (Beck and Haase 1974).

The first reported Wintu contact with Euro-Americans occurred in 1826 and 1827 when expeditions of Hudson's Bay Company trappers and traders led by Peter Skene Ogden, and American trapper Jedidiah Smith and his party, made forays into the region (Mackie 1997; Morgan 1953). The British Hudson's Bay Company had established a western headquarters at Fort Vancouver on the Columbia River, and the company's governor, Dr. John McLoughlin, saw profit in furs to the south (Cline 1974).

During his 1826-27 expedition with the Snake River brigade, Peter Skene Ogden became the first fur hunter to reach the Pit River. Ogden named the waterway the Pit River because of the number of animal pit traps that he observed along its banks. Ogden's exploration opened the area to other trappers. In 1846, by the onset of the war with Mexico, British and American fur traders and immigrants had carried out a substantial exploration of northern California, including the Upper Pit River country and Shasta County (Morgan 1953).

Pierson B. Reading came west in 1843 with the Chiles-Walker party (Smith 1995). Reading passed through Shasta County before eventually arriving at Sutter's Fort. He worked for Sutter for a year, and with Sutter's help, was able to obtain a land grant of 26,000 acres from the Governor Micheltorena in 1844 (City of Redding 2019). The grant, Rancho Buena Ventura, was the most northerly land grant in California. A house was constructed for Reading's overseer of the rancho in 1845 and the land was stocked with cattle. Reading later built an adobe on the west bank of the Sacramento River near the confluence with Cottonwood Creek, seven miles east of the community of Cottonwood (Haslam 1993). Reading first discovered gold in Clear Creek in 1848, the area initially did not attract the large numbers of miners, however, the discovery proved the existence of profitable placer deposits in Shasta County,

making it certain others would also come crowding to sluice the gravels and pan the dark sands of the local rivers and streams (Smith 1995).

The Rancho Buena Ventura lands included the future town of Redding. Redding proper was originally known as Poverty Flats until the Southern Pacific Railroad built tracks through the future town site and renamed the area Redding in honor of railroad man Benjamin P. Redding. Locals resisted the new name and in 1874 rechristened the town Reading in honor of the early pioneer. The Southern Pacific prevailed, and by 1880, the community's name was restored to Redding (City of Redding 2019).

Shasta County was established in 1850, one of the 27 original counties in California. At first it included all the territory that later became Modoc and Lassen counties, as well as portions of Plumas, Siskiyou and Tehama counties. The original County seat was located at Reading's Ranch near Cottonwood (California Association of Counties 2014).

From 1852 through the rest of the nineteenth century mining was the industry in the region and remained important to the local economy during the twentieth century as well, the mineral wealth of the Shasta area is in the form of copper in deposits of massive sulfide ore that also contains zinc, lead, silver, and gold, among other minerals. Quartz deposits, which elsewhere have provided a more stable base for the gold mining economy, are rare within this region (Lydon and O'Brien 1974:17).

The second prominent industry of the Shasta County region was lumbering. Initially, the lumber industry supplied the settlers and miners in the region with wood for constructing houses, wagons, and flumes. The industry grew in spurts in the 1900s. The San Francisco earthquake of 1906 created a surge in the demand for lumber when people were rebuilding, but when San Francisco had been reconstructed, the demand for lumber waned (Lawson 1986:89-92).

The next surge in the lumber industry came with the United States' entry into WWI. The country needed lumber for the construction of barracks at training bases and California's resources helped supply that need. WWII brought similar demands on the lumber industry, which continued after the war when soldiers returning to the United States wanted to purchase homes made affordable by loans available through the GI Bill. Although there was a slight lull in the market in the 1950s, the 1960s and 1970s brought a rebound to the industry as the Baby Boomers--the children born in the late 1940s and 1950s--reached maturity and started their own families, driving up the demand for new housing (Lawson 1986:89-92).

Archaeological Records Search

On 20 July 2023, Kevin Dalton, the principal for AnthropologyRx, conducted a records search (File Number NE23-328) at the NEIC in Chico, California. The NEIC, an affiliate of the State of California Office of Historic Preservation is the official state repository of archaeological and historical records and reports for an 11-county area that includes Shasta County. The records search included a review of all study reports on file within a 1-mile radius of the Project Area. A search of cultural resources included a 1-mile radius. Sources consulted include archaeological site and survey base maps, survey reports, site records, and historic General Land Office (GLO) maps.

Included in the review were:

- California Inventory of Historical Resources (California Department of Parks and Recreation 1976)
- California Historical Landmarks for Shasta County (CA-OHP 1990)
- California Points of Historical Interest (CA-OHP 1992)

- Historic Properties Directory (CA-OHP April 2012), including the National Register of Historic Places, California Historical Landmarks, and California Points of Historical Interest
- Historic Spots in California (Kyle 1990)
- Shasta County Historical Society website

Review of historic registers and inventories indicate that no historical landmarks or points of interest are present in the Project area or within the search radius. Review of archaeological site and survey maps revealed that the Project included as part of three prior cultural resource surveys (Table 1).

Table 1. Summary of Previous Cultural Resources Studies within Project Area

NEIC Number	Author(s)	Year	Report Title
10349	Jensen, Sean M	2008	[REDACTED]
7046	Jensen, Sean M	2006	[REDACTED]
5628	Jensen, Peter M.	2003	[REDACTED]

The results of the records search indicate that no prehistoric or historic-era archaeological resources are recorded within the Project area. Six archaeological resources were noted to occur within the 1-mile search radius (Table 2).

Table 2. Summary of Documented Cultural Resources within Search Radius

Primary Number	Trinomial	Type	Description	NRHP/CRHR Eligibility
P-45-003493	CA-SHA-3493H	HIS	[REDACTED]	Unknown
P-45-003549	CA-SHA-3499	PRE	[REDACTED]	Unknown
P-45-003663	CA-SHA-3663H	HIS	[REDACTED]	Unknown
P-45-003664	CA-SHA-3664H	HIS	[REDACTED]	Unknown
P-45-004254	CA-SHA-4254	PRE	[REDACTED]	Unknown
P-45-004255	CA-SHA-4255	PRE	[REDACTED]	Unknown

*Cultural resource information, including location, is protected by state regulations in accordance with CEQA. Report Titles from Table 1 and Descriptions from Table 2 have been redacted (Shasta County).

Field Methods

AnthropologyRx principal, Kevin Dalton, conducted a field survey of the Project Area on 20 July 2023. Project design drawings, topographic maps, aerial imagery, roads, and local landmarks were used to correctly identify the Project area.

The project area has been subjected to a range of past ground disturbing activities, including farming, ranching, and residential use. As well, limited tree and brush removal, access road grading, and placement of overhead and buried utilities have resulted in minimal to moderate impacts to ground surface and sub-

surface components at various locations. Stillwater Creek runs seasonally and is immediately west property boundary.

Ground surface visibility was good throughout the cultural resource survey, averaging 40%. The entire Project area was surveyed using intensive survey coverage with transects spaced at 10-meter intervals (Figure 2). During the archaeological field survey, digital photos were taken of the Project Area and surroundings (Figures 3 and 4).

Study Findings and Management Recommendations

This cultural resource inventory was conducted to satisfy requirements of CEQA and the responsibilities codified in Public Resource Code sections 5097, and implementing guidelines 21082 and 21083.2. No cultural resources were identified within the project area.

The following recommendations are made to ensure that cultural resources are not adversely affected by the proposed project.

Unanticipated Discovery of Cultural Resources

If previously unidentified cultural resources are encountered during project implementation, avoid altering the materials and their stratigraphic context. A qualified professional archaeologist should be contacted to evaluate the situation. Project personnel should not collect cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, pestles, and dark friable soil containing shell and bone dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails; and refuse deposits or bottle dumps, often located in old wells or privies.

Encountering Native American Remains

Although unlikely, if human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and the County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American and prehistoric, the Native American Heritage Commission must be contacted by the Coroner so that a “Most Likely Descendant” can be designated and further recommendations regarding treatment of the remains is provided.

The Project as presently designed is not expected to have an adverse effect on cultural resources.

Thank you for allowing AnthropologyRx the opportunity to work on this project.

Respectfully,



Kevin Dalton, MA, RPA
Founder/Principal, AnthropologyRx

References Cited

- Basgall, Mark E. and William R. Hildebrandt
1987 Prehistory of the Sacramento River Canyon, Shasta County, California. California Department of Transportation, Redding.
- Baumhoff, Martin A., and David Olmsted
1963 Radiocarbon Support for Glottochronology. *American Anthropologist* 65(2):278-284.
- Beck, Warren A., and Ynez D. Haase
1974 *Historical Atlas of California*. University of Oklahoma Press
- California Association of Counties
2014 The Creation of Our 58 Counties. Electronic Document.
<https://www.counties.org/general-information/creation-our-58-counties>. Accessed on September 8, 2019.
- City of Redding
2019 Historic Redding California. Electronic Document.
<https://www.cityofredding.org/about-us/brief-history-of-redding>. Accessed on September 8, 2019.
- Clewett, E.
1975 Activities and Conclusions of the 4-SHA-46 delimitation Investigation conducted by the S.C.A. District II Archeological Survey.
- Clewett, S. Edward
1977 CA-Sha-475: An Interim Report on Squaw Creek #1, a Complex Stratified Site in the Southern Klamath Mountains, Shasta College, Redding.
- Clewett, S. Edward and Elaine Sundahl
1979 Clikapudi Archaeological District: Research Design. Shasta- Trinity National Forest, Redding.
1980 Clikapudi Archaeological District: 1979 Field Research. Shasta-Trinity National Forest, Redding.
1981 Clikapudi Archaeological District: 1980 Field Research. Shasta-Trinity National Forest, Redding
1982 Clikapudi Archaeological District: 1981 Field Research. Shasta-Trinity National Forest, Redding, 1982
1983 Archaeological Excavations at Squaw Creek, Shasta County, Shasta-Trinity National Forest, Redding.
- Cline, Gloria Griffin
1974 Peter Skene Ogden and the Hudson's Bay Company, University of Oklahoma Press, Norman.
- Dotta, James A.
1980 Some Elements of Wintu Social Organization as Suggested by Curtin's 1884-1889 Notes. *Occasional Papers of the Redding Museum* 239(1):118-131.

Dotta, James A., and J. Moore

- 1964 Site record for P-45-000501 (CA-SHA-501). Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.

Du Bois, Cora.A.

- 1935 Wintu Ethnography. University of California Publications in American Archaeology and Ethnography, Vol. 36. University of California Press. Berkeley, CA.

Farber, Alfred and Neal Neuenschwander

- 1984 Archaeological Test Excavation at the Fay Hill Site, CA-Sha-1481, Shasta County, California. Bureau of Land Management, Redding.

Fisher, Jim

- 2000 Site record for P-45-005105. Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.

Fredrickson, David A.

- 1973 Early Cultures of the North Coast Ranges, California. Ph.D. dissertation, University of California, Davis.

General Land Office (GLO) Plat Maps

- 1855 Original Survey, Township 32 N., Range 5 W., Shasta County
1866 Original Survey, Township 32 N., Range 5 W., Shasta County
1870 Original Survey, Township 32 N., Range 5 W., Shasta County
1938 Dependent Resurvey, Township 32 N., Range 5 W., Shasta County
1970 Supplement Plat, Township 32 N., Range 5 W., Shasta County

Haslam, Gerald W.

- 1993 The Great Central Valley: California's Heartland. University of California Press.

Hildebrandt, William R. and Michael J. Darcangelo

- 2008 Life on the River: The Archaeology of an Ancient Native American Culture. Berkeley, CA: Heyday Books.

Hughes, Richard E.

- 1977 The Archaeology of the Burrell Site, CA-Mod-293, a Lowland Occupation Site in the Goose Lake Basin, Northeast California. Report to the National Endowment for the Humanities, Washington D.C.

Gudde, Erwin G.

- 1969 California Place Names. University of California Press, Berkeley.

Jensen, Peter, and Alfred Farber

- 1982 Archaeological Data Recovery Program at CA-Sis-342 on 02-Sis-97 P.M. 41.5 to 42.3. California Department of Transportation, Sacramento.

Kalso, Stinson, Duarte, Austed

- 1971 Site record update for P-45-000501 (CA-SHA-501). Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.

Kowta, Makoto

-
- 1984 Further Thoughts on Maidu Prehistory: A View from Chico. Paper Presented at the Annual Meetings of the Society for California Archaeology, Salinas, 1984.
- Kroeber, Alfred L.
1925 Handbook of the Indians of California. Bureau of American Ethnology Bulletin 78. Washington, D.C.
- Douglas E. Kyle
1970 Historic Spots in California. Hoover, Rensch, and Rensch, Fourth Edition. Stanford University Press.
- LaPena, F. R.
1978 Wintu. In Handbook of North American Indians, Vol. 8, California. R.F. Heizer, ed., Washington, D.C.: Smithsonian Institution.
- Lawson, John D.
1986 Redding and Shasta County: Gateway to the Cascades. Windsor Publications, Northridge, California.
- Mackie, R. S.
1997 Trading Beyond the Mountains: The British Fur Trade on the Pacific 1793-1843. Vancouver, BC: UBC Press.
- McGann, D.
1992 Site record for P-45-000889 (CA-SHA-889). Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.
- McGann, D. and M. Clark
1991 Site record for P-45-000322 (CA-SHA-322). Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.
- Meighan, Clement W.
1955 The Archaeology of the North Coast Ranges. University of California Archaeological Survey Reports 30:1-39.
- Metsker Map
1959 Township 32 N., Range 5 W., Redding, Keswick, Newtown, Buckeye, Silverthorn, Matheson.
- Morgan, D.L.
1953 Jedediah Smith and the Opening of the West. Bison Books: University of Nebraska.
- Peak, Ann S.
1979 Cultural Resources Assessment of the Thomas Ryan Indian Allotment in the Fall River Valley, Shasta County, California. National Park Service, Tucson.
- Peak & Associates, Inc.
1984 Cultural Resources Study for the Pit 3, 4, & 5 Project, Shasta County, California. Pacific Gas and Electric Company, San Francisco.
- Sanborn-Perris Map Company, Ltd. (Sanborn)
1885 Sanborn Fire Insurance Map from Redding, Shasta County, California. 2 Sheets
-

Smith, Dottie

- 1995 Historic Data Inventory of the Shasta County Interlakes Special Recreation Management Area. Cultural Resources Publications, Eric Ritter, Ed.

Sundahl, Elaine

- 1976 Churn Creek: A Possible Early Lithic Locality in Shasta County, California. Paper presented at the Meeting of the Society for California Archaeology, San Diego.
1992 Cultural Patterns and Chronology in the Northern Sacramento River Drainage. Proceedings of the Society for California Archaeology 5:89-112.

United States Geological Survey (USGS)

- 1901 Redding Topographic Map, 125,000 scale.
1944 Redding Topographic Map, 62,500 scale.
1946 Redding Topographic Map, 62,500 scale.
1957 Redding Topographic Map, 24,000 scale.

Vaughan, Trudy

- 1989 Archaeological Concerns with the Proposed Extension of the Sacramento River Trail, Shasta County.
2001 Archaeological Reconnaissance Proposed Renovation of "The Plunge" Redding's Municipal Swimming Pool, Shasta County, California.

Vaughan, Trudy and Elaine Sundahl

- 2002 Archaeological Investigations at CA-SHA-891 in the McConnell Arbortum of the Turtle Bay Exploration Park, Redding, Shasta County, California.

West, G. James

- 1987 Late Pleistocene/Holocene Vegetation and Climate. In: Prehistory of the Sacramento River Canyon, Shasta County, California. California Department of Transportation.

Whiteaker, Gary

- 2006 Cultural Resource Inventory and Historic Architecture Evaluation for the Redding Property Associates Proposed Medial Office Project, on 2.4 Acres in the City of Redding, Shasta County, California. Manuscript on file at the Northeast Information Center of the California Historical Resources Information Center.

Willey, Gordon R. and Phillip Phillips

- 1958 Method and Theory in American Archaeology. The University of Chicago Press, Chicago.

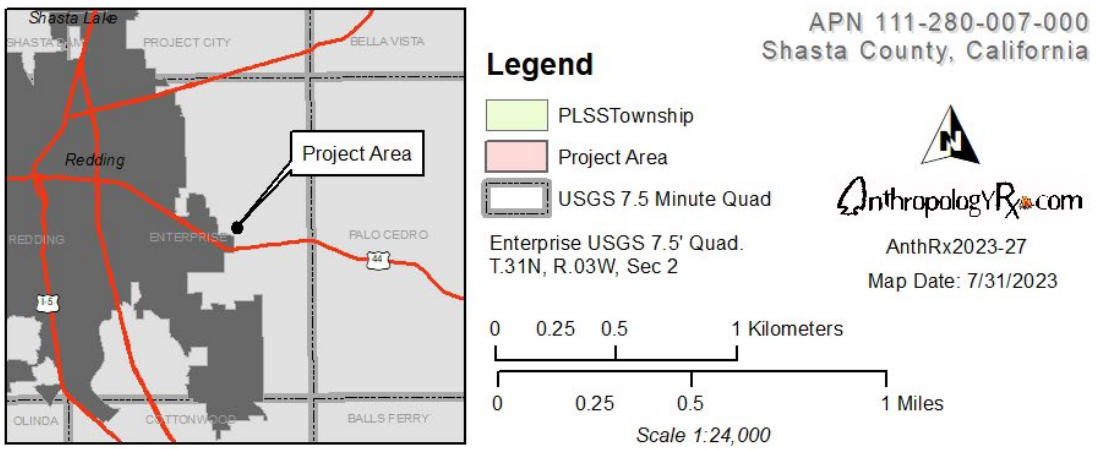
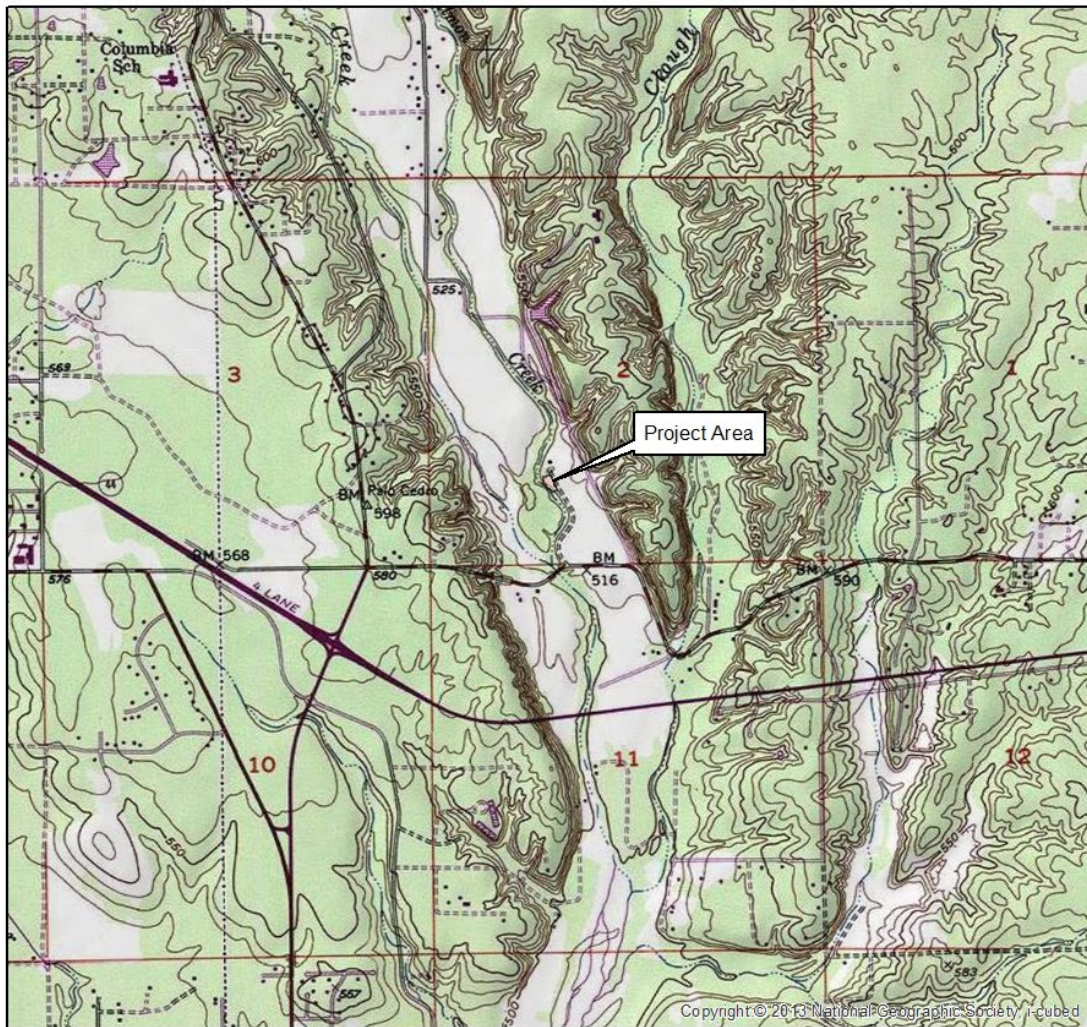


Figure 1. Project and Survey Area.

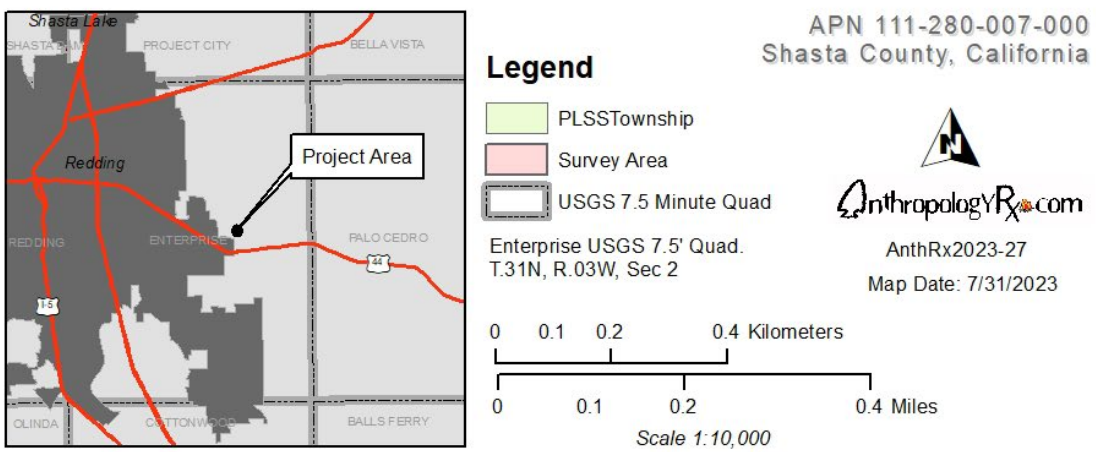
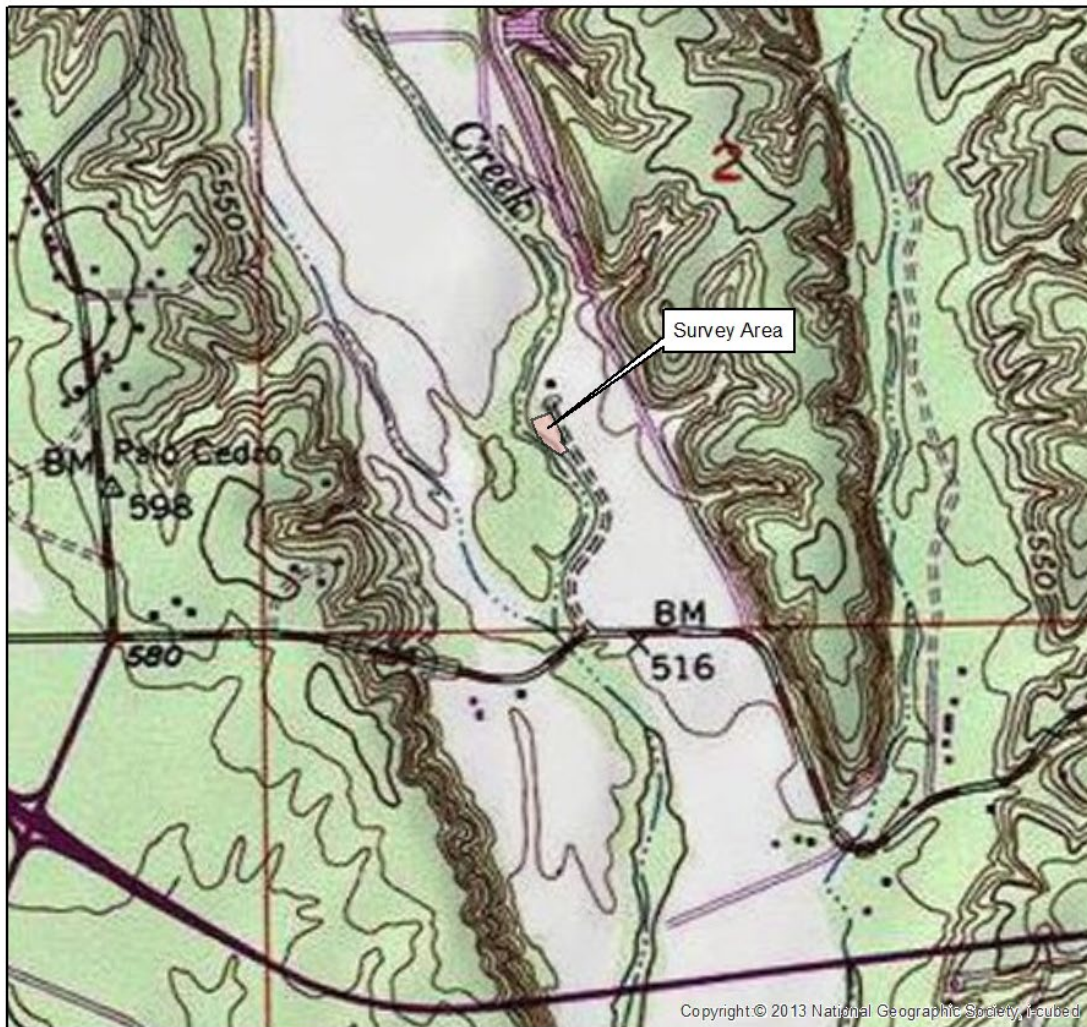


Figure 2. Close-up of Survey Area.



Figure 3. Overview of Project and survey Area. Cut grass represents the building envelope. View is to the North (IMG_6609, 20230714).



Figure 4. Overview of Project and survey Area. View is Northwest (IMG_6612, 20230714).