Community and Economic Development
Planning Division

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Director BB

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PLANNING COMMISSION DATE: October 7, 2014

AGENDA ITEM: #1

GP	**#2014-003**	**General Plan Amendment, Rezone, and 21 Lot**
CZ	**#2014-003**	**Residential Subdivision**
S	**#2014-001**	
APN	**059-200-004**	**Applicant: Paul Contreras**
CEQA	**#2014-026**	**Mitigated Negative Declaration**

REQUEST:

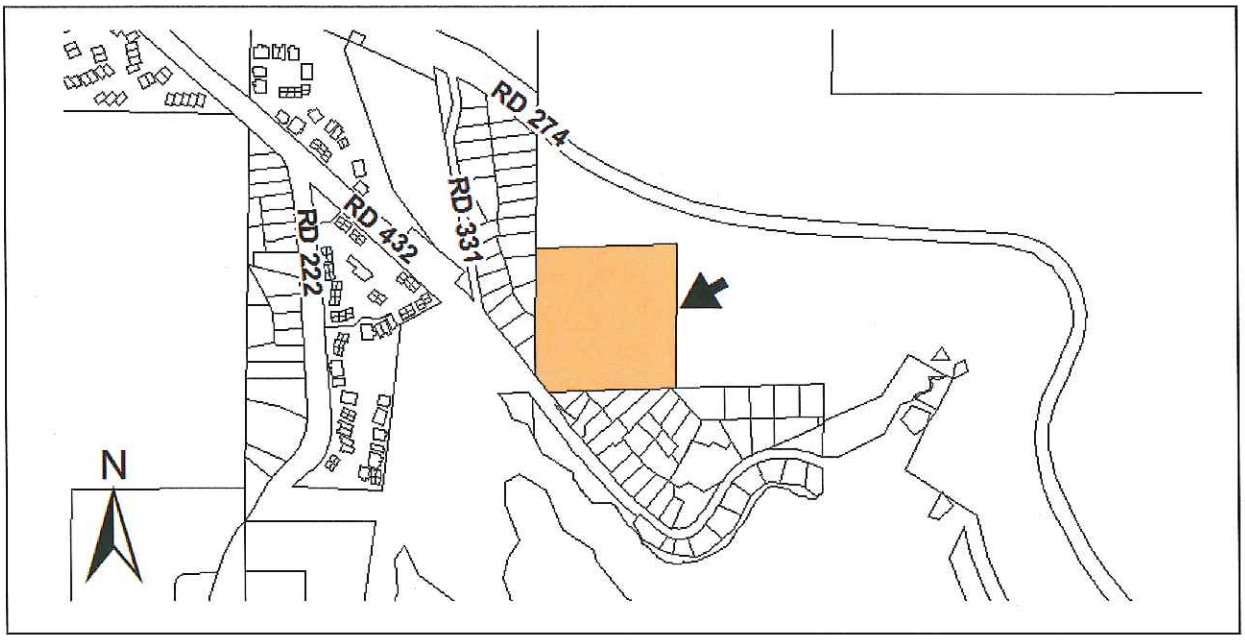
Paul Contreras is requesting approval of a General Plan Amendment to LDR (Low Density Residential) Designation, a Rezone to RUS (Residential Urban Single Family) District, and a tentative subdivision map for 21 residential lots.

LOCATION:

The property is located on the east side of Road 432, approximately 280 feet south of its intersection with Road 331 (no situs), Bass Lake.

ENVIRONMENTAL ASSESSMENT:

A Mitigated Negative Declaration (MND #2014-26) has been prepared and is subject to approval by the Planning Commission.



RECOMMENDATION: Recommend approval of the General Plan Amendment #2014-003, Rezone #2014-003, Tentative Subdivision Map #2014-001, Mitigated Negative Declaration (MND #2014-26), and Mitigation Monitoring and Reporting Program subject to conditions.

STAFF REPORT October 7, 2014
GP #2014-003
CZ #2014-003
S #2014-001

GENERAL PLAN DESIGNATION (EXHIBIT A):

SITE: PI (Public Institutional) Designation

PROPOSED: LDR (Low Density Residential) Designation

SURROUNDING: LDR (Low Density Residential) Designation
PI (Public Institutional) Designation

ZONING (EXHIBIT B)

SITE: POS (Public Open Space) District

PROPOSED: RUS (Residential Urban Single Family) District

SURROUNDING: POS (Public Open Space) District
RMS (Residential Mountain Single Family) District
RRM (Residential Rural Multiple Family) District

LAND USE:

SITE: The Project site is predominantly vacant with some storage buildings being used by the County.

SURROUNDING: Parcels to the northwest and south are residential parcels and the parcel to the north and east is Forest Service land.

SIZE OF PROPERTY (EXHIBIT C): Approximately 10 acres.

ACCESS (EXHIBIT C):

The subdivision is proposed to be accessed from Road 432.

WILLIAMSON ACT:

The subject property is not under to a Williamson Act (Agricultural Preserve) contract.

BACKGROUND AND PRIOR ACTIONS:

No previous entitlements have been approved for the project site.

PROJECT DESCRIPTION:

Paul Contreras is requesting approval of a General Plan Amendment from PI (Public Institutional) Designation to LDR (Low Density Residential), a rezone from POS (Public Open Space) District to RUS (Residential Urban Single Family) District, and a tentative subdivision map for 21 residential lots .

ORDINANCES/POLICIES:

Section 18.12.010 of the Madera County Zoning Ordinance outlines land uses in the RUS (Residential Urban Single Family) zone district.

Madera County General Plan: LDR (Low Density Residential) Designation

Madera County Code (Chapter 17.20 regulates tentative subdivision maps)

California Government Code Title 7 (Subdivision Map Act).

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ANALYSIS:

The project site is located on the north side of Bass Lake which comprises approximately 10 acres. The landscape of the project site is in an oak woodland/mountain setting. The current primary use of the site is for storage buildings and storage of County equipment. While the County is the current owner of the parcel, a real estate contract is in process for the sale of the property to Mr. Contreras after approval of the project.

The area within the tentative map boundaries is being requested to be changed to a LDR (Low Density Residential) General Plan Designation from PI (Public Institutional) and to RUS (Residential Urban Single Family) Zone District from POS (Public Open Space). This designation and district are consistent with the surrounding residential lots which were created by the Falls Tract Subdivision. There is Forest Service land located to the north and east of the project site.

Access to the project site is being taken from Road 432 and through an easement which is agreed to and being recorded from an adjoining parcel which also has access to Road 432. There are existing easements throughout the area which could have potentially been used for access which were created as part of the Falls Tract subdivision map, but were not selected to be the best sources of access for this project. All internal roads lengths meet requirements imposed by the Fire Division and Public Works Department. Service connections for sewer service are secured through the Public Works Department (Service Area 2) and water service is being provided by Bass Lake Water Company. Twenty sewer units have already been secured and one additional unit must be acquired. A Will Service letter from Bass Lake Water Company has already been issued for the project.

In March 2014, an application for the Preliminary Subdivision Map was submitted. The map was circulated and comments were provided to the applicant. Based on those comments, the tentative map was prepared and submitted in August, 2014. The lots range from approximately 17,000 to 34,000 square feet in size.

The tentative map was circulated to internal departments and external agencies. Comments were received from the Assessor's Office, Engineering Department, Environmental Health Department, Fire Department, Road Department, Caltrans, and the North Fork Rancheria. Comments have also been received from surrounding properties voicing their concerns over sewer hook-up availability, water, and access issues.

FINDINGS OF FACT:

1. *The proposed subdivision and its design or improvements are consistent with the policies, goals, and objectives of the applicable land use plan.* Secondary access has been addressed per General Plan policy 6.C.5 - *The County shall require development to have adequate access for fire and emergency vehicles and equipment*. *All major subdivisions shall have two points of ingress and egress.* Also, the water system and sewer system are consistent with Title 13 requirements and all requirements set forth by the State.

2. *The tentative subdivision map meets all of the requirements or conditions imposed by the Subdivision Map Act and Title 17 of the Madera County Code.* All requirements and proposed conditions are consistent with the Subdivision Map Act and Title 17 or the

Madera County Code including water and wastewater design, road standards, and lot design. This application includes a general plan amendment and rezone, meeting requirements of the Subdivision Map Act for consistency. All requirements listed in Title 17 for tentative subdivision maps have been included on the map.

3. *The site is physically suitable for the type and density of development.* The project site is predominantly surrounded by residential development. The lot sizes are compatible with lot sizes in the vicinity. Drainage and traffic design are acceptable per the Public Works Department.

4. *The design of the subdivision or the proposed improvements are not likely to cause substantial environmental damage or substantially and avoidably injure fish or wildlife or their habitat.* A biological assessment was prepared for the project and mitigation measures are required included biological habitat protection and avoidance.

5. *The design of the subdivision or the type of improvements will not be detrimental to the public health, safety, and welfare.* The project is designed to provide for adequate access, sewer system hook-ups are secured through the Public Works Department, and a will serve letter has already granted by the Bass Lake Water Company indicating they can and will provide water service to the project.

6. *The land is not subject to a contract entered into pursuant to the California Land Conservation Act of 1965 (and the resulting parcels following a subdivision of that land would be too small to sustain their agricultural use).* The subject property is not subject to a Williamson Act Contract.

GENERAL PLAN CONSISTENCY STATEMENT:

The proposed General Plan designation and zone district are consistent with each other and with the surrounding area.

The project provides for the development 21 residential lots which is approximately 2 dwelling units per acre. The density falls within the range of allowed density in the proposed General Plan designation of LDR (Low Density Residential) of 1-7.5 dwelling units per acre.

The LDR (Low Density Residential) designation provides for single family detached and attached homes, secondary residential units, bed-and-breakfast establishments, limited agricultural uses, public and quasi-public uses, and similar and compatible uses.

RECOMMENDATION:

The analysis contained in this report supports approval of the General Plan Amendment (GP #2014-003), Rezone (CZ #2014-003), Tentative Subdivision Map (S #2014-001), and Mitigated Negative Declaration (MND #2014-26) and Mitigation Monitoring and Reporting Program subject to compliance with the conditions.

CONDITIONS:

See attached conditions of approval.

JB

STAFF REPORT October 7, 2014
GP #2014-003
CZ #2014-003
S #2014-001

ATTACHMENTS:

1. Exhibit A, General Plan Map
2. Exhibit B, Zoning Map
3. Exhibit C, Assessor Map
4. Exhibit D, Tentative Map
5. Exhibit E, Aerial Map
6. Exhibit F, Topographical Map
7. Exhibit G, Initial Study
8. Exhibit H, Mitigated Negative Declaration
9. Exhibit I, Biological Assessment
10. Exhibit J, Assessor's Office comments
11. Exhibit K, Engineering Department comments
12. Exhibit L, Environmental Health Department comments
13. Exhibit M, Fire Department comments
14. Exhibit N, Road Department comments
15. Exhibit O, Caltrans comments
16. Exhibit P, North Fork Rancheria comments
17. Exhibit Q, Bass Lake Water Company Will Serve Letter

JB

CONDITIONS OF APPROVAL

PROJECT NAME: Subdivision #2014-001, General Plan Amendment #2014-003, Rezone #2014-003, Contreras

PROJECT LOCATION: East side of Road 432, approximately 280 feet south of its intersection with Road 331 (no situs), Bass Lake

PROJECT DESCRIPTION: Division of 10 acres into 21 residential lots, a general plan amendment, and a rezone

APPLICANT: Paul Contreras

CONTACT PERSON/TELEPHONE NUMBER: (559) 760-0527

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
ENGINEERING DEPARTMENT					
1	The identified parcel is located **in Flood Zone "D"** as shown on the latest Flood Insurance Rate Maps (FIRM), an area determined to be outside the 100-year flood plain. A parcel identified as not being located within a Special Flood Hazard area may be subject to localized drainage problems that are site specific and not included in this flood zone determination.				
2	The property is within Madera County Service Area 2A S, Bass Lake Sewer District (SA2A S). APN 059-200-004 currently has 20 Sewer Units allocated. The proposed Subdivision will require 21 Sewer Units to be in compliance with the county ordinance. Hence, the project will need to obtain 1 more Sewer Unit. Please contact our department to obtain information regarding availability and the process to achieve adequate capacity.				
3	The proposed Subdivision will be served by the Bass Lake Water Company. A Will Serve Letter which allows the development to connect to their water system is required.				
4	Drainage plan will need to be submitted to the Engineering Department which will demonstrate that each property will retain all run-off generated by their parcel, OR a Community Retention Basin that may require an OUTLOT to serve its use.				
5	The Map shows that the right-of-way will be utilized as Public Utility Easements (PUEs), this is acceptable to our department but the easements will need to be formed.				
ENVIRONMENTAL HEALTH DEPARTMENT					
1	This proposed subdivision shall be served by a community water system and a community sewer system. Water and sewer services for any structures, on any lots, within this development must be connected to an approved community water system as well as a community sewer system. *[MCC 17.48.020 & 17.48.010]				
2	This development is located within Madera County Service Area (CSA) SA 2 S and is included with the County Sewer Master Plan and therefore shall connect to it as an approved community sewer system for each individual parcel within the subdivision. The development shall comply with all CSA requirements.				
3	This development is located within the Bass Lake Water Company and will require a Will Serve Letter as approval of water connection for this proposed subdivision.				
4	Mandatory Solid Waste collection service is recommended.				
FIRE DEPARTMENT					
1	A comprehensive Fuel Reduction Plan shall be completed in conjunction with the Fire Marshal?s Office and approved by the Madera County Fire Marshal. Fuel reduction plans shall be required for all developments within State Responsible Areas designated as Wildland Urban Interface. Due to the extreme vegetation in the area major fuel reduction shall be completed based upon site inspection conducted by the Fire Marshal. The Fuel Reduction Plan shall be submitted, approved, implemented and completed as required by the County Fire Marshal prior to recordation of the final map.				
2	All roads accessing the project shall be identified by name and signed at intersections. All cul-de-sac roads shall be signed “NOT A THROUGH ROAD” at intersections.				
3	A fire suppression hydrant system shall be available to within 1000 feet of the frontage of each proposed parcel. Acceptable hydrants shall be able to produce no less than 1,000 gpm at 20 psi for 2 hours. Hydrants shall be tested and approved prior to the recordation of the final map.				
4	The subject property is within State Responsibility Area (SRA); as such a Registered Licensed Professional Forester must determine whether the project site requires a timberland conversion. Contact shall be made with either a Registered Licensed Professional Forester or the CAL-Fire Forestry division in Mariposa (209) 966-3622 extension 218 to determine if any state forest issues will need to be addressed. Documentation of the forester’s determination will be needed prior to approval of the final map.				
PLANNING DEPARTMENT					
1	The final map shall be prepared and processed in accordance with Title 7 of the California Government Code and Title 17 of the Madera County Code.				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
2	The applicant's engineer shall submit the construction plans for all improvements (i.e., water, sewer, drainage, roads, etc.) required for this subdivision to the Planning Department simultaneously with the final subdivision map filing.				
3	All construction plans shall be reviewed and approved by all Subdivision Committee members (Planning, Road, Fire, Environmental Health, and Engineering Departments) prior to issuance of any or all construction permits from a department or departments.				
4	The applicant's engineer after Subdivision Committee approval of all construction plans shall submit a reproducible copy of said construction plans to the Planning Department for signature by all Subdivision Committee members authorized agent prior to issuance of any or all construction permits.				
5	Relocation of all existing utility lines, if any, shall not be at the County's expense. The relocation shall be completed prior to final map approval. If bonding is utilized, inclusion of the relocation cost(s) shall be included in the cost estimate and certified as acceptable by the appropriate public utility(s).				
6	All improvements (water, sewer, roads, street signs, hydrants, utilities, vegetation clearing, etc.), including any necessary easements, required by the appropriate governmental agencies and/or public utilities shall be installed to each lot, unless bonded, prior to final map approval. Written certification that each improvement has been installed or will be bonded shall be submitted to the Planning Department by the responsible permitting agency/utility.				
7	Use of the outlot(s) is restricted to the specific use(s) indicated on the final map. Any deviation will require the approval of the County of Madera.				
8	Pursuant to the California Government Code (Subdivision Map Act), public utilities or public entities whose easements are affected by the map have thirty (30) days to determine of the map will unreasonably interfere with the free and complete exercise of the easements. A copy of the map and the easement(s) must be sent by certified mail to the affected public utility or entity by your project surveyor/engineer. Either a copy of the surveyor/engineer's notice to the utility/entity with a copy of the dated certified return receipt of a letter of consent to the recording of the map from the utility/entity must be provided to the Planning Department prior to final map approval.				
9	The term of the subdivision map shall be extended for a period of time to the longer of, (i) the expiration date of the Development Agreement as set forth in Section 3.8 thereof, including any extensions thereof, or (ii) the term of such maps under applicable provisions of the Subdivision Map Act, including any non-discretionary extensions and any granted discretionary extensions thereof.				
10	The final subdivision map shall require written approvals and Certificates of Acceptability from the Madera County Fire, Road, and Environmental Health Departments.				
11	The final subdivision map shall require the signature of the Madera County Engineer/Surveyor and his Certificate of Acceptability.				
12	A Subdivision Guarantee, current within 30 days, shall be provided to the Planning Department simultaneously with the final map.				
13	Payment of all current, supplemental, pending supplemental, delinquent, and estimated taxes, as applicable, shall be made prior to approval of the final subdivision map.				
14	A recording fee, based upon the number of final map sheets, shall be provided to the Planning Department for use in the final map recordation.				
15	A fee for the recording of the Right-to-Farm Notice required in conjunction with this proposal shall be provided to the Planning Department.				
16	Corrective comments pertinent to the final map may be stipulated upon review of the final map for compliance with State law, County ordinance and conditions of approval.				
17	The applicant shall apply to the Planning Department for a road name and pay for all required signs. Signs shall be approved and payment shall be received prior to final map approval.				
18	Each addressable structure shall have its address posted on it. If the posted address is not visible from the roadway to which the address is issued, the address shall also be posted at the intersection of that roadway and the driveway serving the structure. Multiple addresses shall be posted on the same post.				
19	Under provisions of County Code Chapter 15.03, the applicant shall dedicate land or pay a fee in lieu of dedication of land for parks and recreational facilities.				
ROAD DEPARTMENT					
1	As a condition of approval, the proposed subdivision shall have two points of access onto a through road.				
2	All proposed roads shall not exceed the maximum dead end road length.				
3	All centerline information must be shown on the map for the proposed roads (MCC 17.72.100.G). The existing as well as all proposed roads shall comply with all applicable County Codes and Standards, and be designed to meet CALTRANS and AASHTO Standards. All off-site roadways connecting the project to Road 432 must meet Caltrans and / or AASHTO Standards. Existing roadways that do not meet the minimum geometric and / or structural standards must be brought up to such standards (MCC 17.32.080 and 17.32.090).				

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks
4	All internal roads shall meet minimum AASHTO 'Very low volume design standards'.				
5	All internal roads shall be paved and must meet current County Standard.				
6	Prior to any road construction where such construction is proposed within an existing public right-of-way, the developer will apply for an Encroachment and Construction Permit at the Road Department. These permits must be approved prior to any construction (MCC 17.72.040.A).				
7	The application materials will include a plan and profile for all proposed road structures, or related improvements drawn to a scale approved by the Road Department, copies of R value tests, calculation of storm drainage facilities, calculations of cut and fill, and an engineer's cost estimate. The plans will include: existing and proposed property lines, topographic contours at intervals of 20 feet, existing fences, buildings, and any infrastructure. A vicinity map, typical cross sections and construction details, proposed improvements, and any other information deemed appropriate by the Road Commissioner or his designee (MCC 17.32.040.C).				
8	The design and construction of all roads and road appurtenances will be the responsibility of the developer, who will employ a California registered civil engineer and/or a California registered land surveyor to do all survey work, and a California registered civil engineer to do all road and road appurtenance design, construction supervision, and inspections (MCC 17.72.050).				
9	Documentation of all road and road appurtenance construction will include: a written statement signed and stamped by a California registered civil engineer, which attests to the fact that the road and all road appurtenances were designed and constructed in accordance with county code and adopted standards (either CALTRANS or AASHTO). Copies of compaction tests and inspection logs and reproducible AS-BUILT plans, signed and stamped by a California registered Civil engineer or California licensed land surveyor (MCC 17.32.060). All construction documentation must be submitted for review and approved by the Road Department prior to the recordation of the final map except when a bond or other acceptable form of security is offered (MCC 17.32.070).				
10	The geometric design of all roads and road appurtenances will be in accordance with county standards road specifications and, or any concept not mentioned either CALTRANS or AASHTO standards (MCC 17.32.080).				
11	All required road improvement shall be constructed in accordance with the approved plans and specifications, subject to inspection and acceptance by the Road Department. Inspections costs incurred will be paid by the subdivider as provided in section 17.24.300 (Ord. 278.A, sec 16, 1964 & Ord. 278 sec 802f.1, 1963) (MCC 17.44.050).				
12	All internal roads shall be maintained by the Project. A maintenance provision through CC&R's or other maintenance mechanism shall be in place prior to recordation.				
13	All appurtenances, such as gates, fences, private sign shall be located outside the proposed right-of-way.				
14	If gates are proposed, then adequate area shall be provided to store vehicles outside the public R/W. Plans shall be submitted to the Road Department for review and approval.				
15	Prior to the recordation of the Final Map, the applicant shall pay the appropriate fees for the fabrication and installation of all road signs required.				
ASSESSOR'S OFFICE					
1	The applicant shows all improvements on applicants land.				
2	The applicant files 1 Completed Assessor's Form AO 93 regarding the Subdivision/Parcel Map improvements.				
3	Proposed transfers & subsequent mergers with the parcels encroaching on the western boundary of this proposal will need to be completed before this subdivision map is recorded.				
CALTRANS					
1	The projects proportional share for improvements to SR 41 and Road 222 are $5,056. The applicant shall enter into a Traffic Mitigation Agreement with Caltrans.				

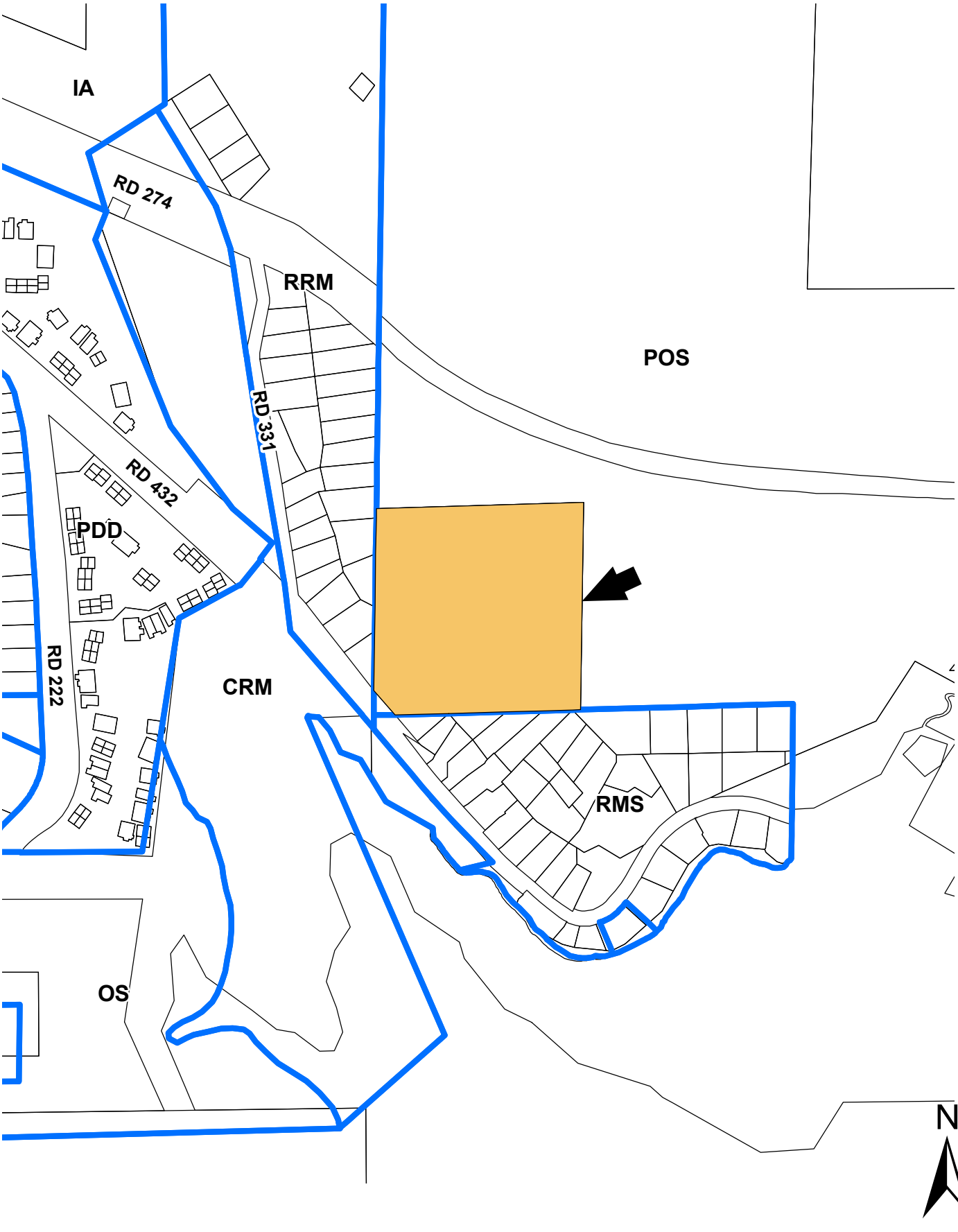
No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks

No.	Condition	Department/Agency	Verification of Compliance		
			Initials	Date	Remarks

EXHIBIT A

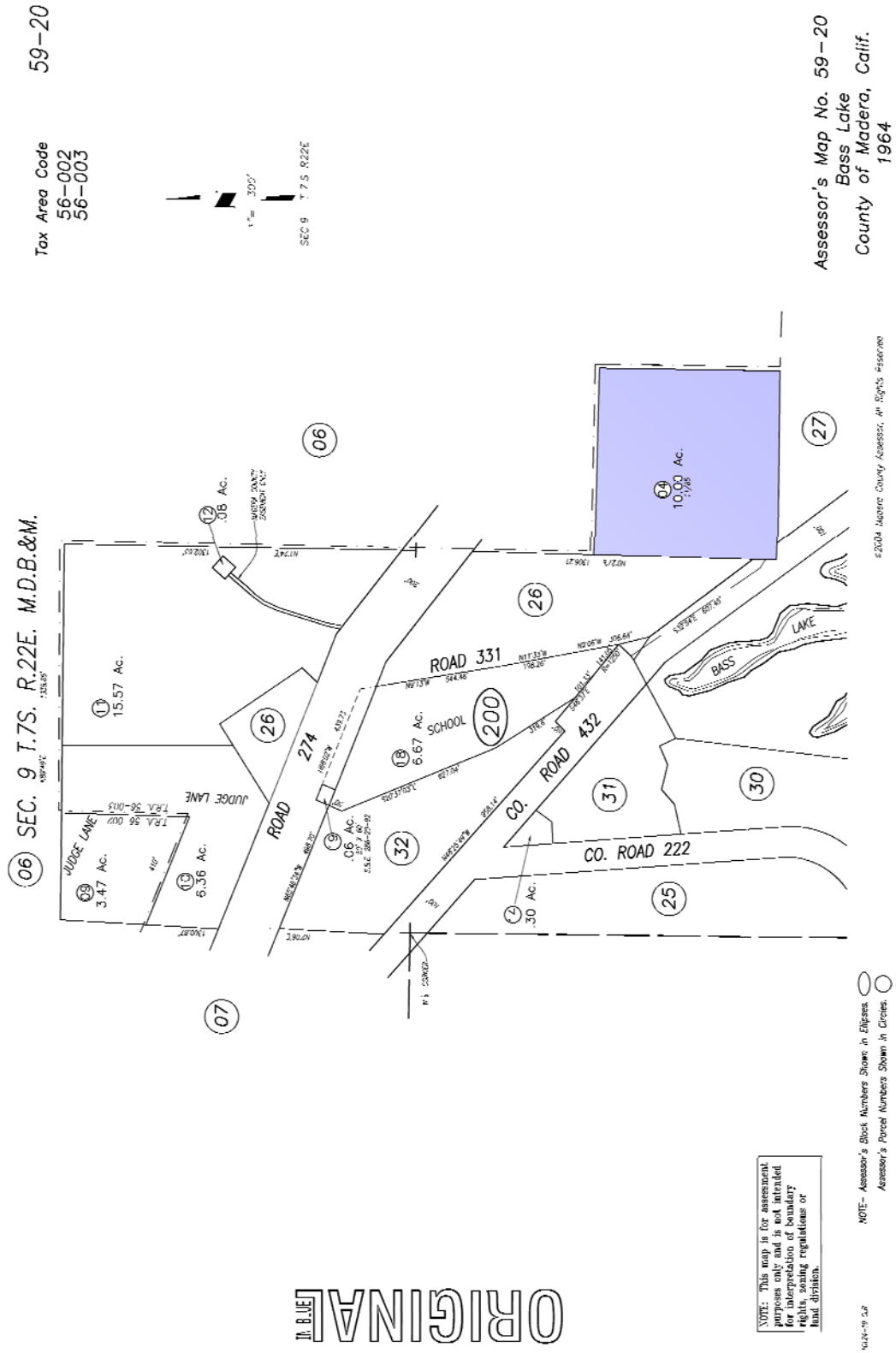
GENERAL PLAN MAP

EXHIBIT B



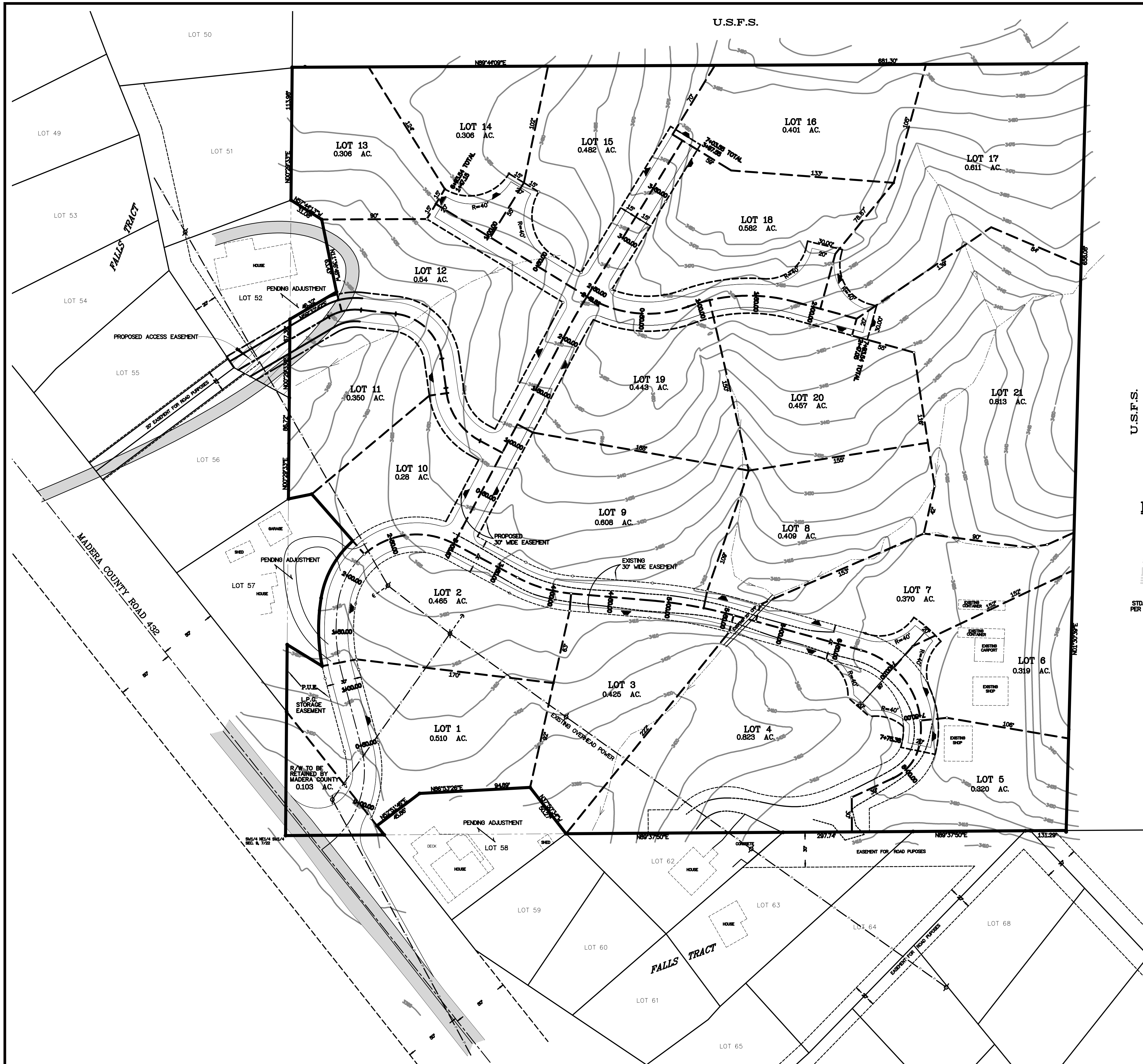
ZONING MAP

EXHIBIT C



ASSESSOR'S MAP

EXHIBIT D



OWNER
MADERA COUNTY

DEVELOPER
PAUL CONTRERAS

SCALE: 1"=40'

40' 20' 0 40'

PROPOSED LAND USE – RESIDENTIAL
SUBDIVIDED AREA – 9.925 AC.
NUMBER OF LOTS – 21

AVERAGE DENSITY – 0.47 ACRES
MINIMUM LOT SIZE – 0.30 ACRES

EXISTING GENERAL PLAN	PI (PUBLIC INSTITUTIONAL)
EXISTING ZONING	POS (PUBLIC OPEN SPACE)
PROPOSED ZONING	RUS (RESIDENTIAL URBAN SINGLE FAMILY)
PROPOSED GENERAL PLAN	LDR (LOW DENSITY RESIDENTIAL)

ROADS
PARCELS TO BE SERVED BY PROPOSED MODIFIED CLASS V PRIVATE ROADS AND MAINTAINED BY PRIVATE MAINTENANCE AGREEMENT AS PER PROPOSED CC&R's.
MAXIMUM GRADE NOT TO EXCEED 12%

UTILITIES
POWER – UNDERGROUND PG&E
TELEPHONE – SIERRA TELEPHONE COMPANY
GAS – LOCAL SUPPLIER WITH CENTRAL DISTRIBUTION SYSTEM
WATER – BASS LAKE WATER COMPANY
SEWER – MADERA COUNTY (SERVICE AREA 2A, BASS LAKE)

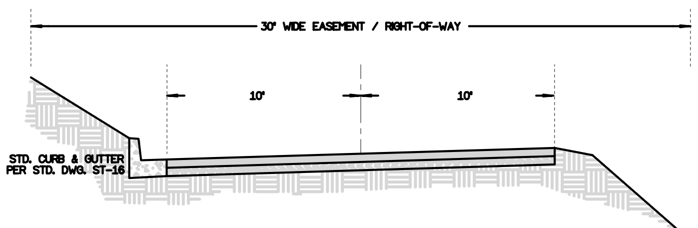
GENERAL NOTES
EXCAVATED AREAS WILL BE RE-VEGETATED ACCORDING TO SOIL CONSERVATION STANDARDS.

RIGHT-OF-WAYS TO BE UTILIZED FOR PUBLIC UTILITIES

SUBDIVISION TO BE RECORDED IN TWO OR THREE PHASES.
MULTIPLE FINAL MAPS WILL BE FILED.

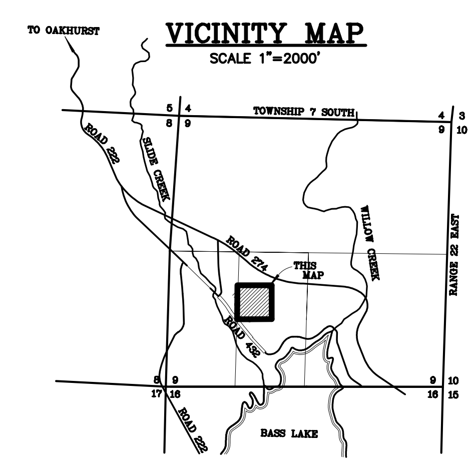
PHASE 1 WILL BE COMPRISED OF LOTS 1,9,10,11,12, & 19.
PHASE 2 WILL BE COMPRISED OF LOTS 2,3,4,5,6,7, & 8
PHASE 3 WILL BE COMPRISED OF LOTS 13,14,15,16,17,18,20, & 21.

MODIFIED CLASS V ROAD CROSS-SECTION



LEGEND
- SURVEY MONUMENT
- DIMENSION POINT
- ORIGINAL PARCEL BOUNDARY
- ADJOINER PARCEL BOUNDARY
- EXISTING EASEMENT LINE
- RIGHT-OF-WAY LINE
- PROPOSED LOT LINE
- PROPOSED RIGHT-OF-WAY / ROAD EASEMENT
- PROPOSED/EXISTING DRIVEWAY WHICH MEETS PRC 4290 AND MADERA COUNTY CODE 542 STANDARDS

VICINITY MAP
SCALE 1"=2000'



BASS LAKE, MADERA COUNTY, CALIFORNIA
POR. APN 059-200-004

TENTATIVE SUBDIVISION MAP
FOR
MADERA COUNTY / PAUL CONTRERAS

JONES AND SNYDER SURVEYING
P.O. BOX 2292
OAKHURST, CA 93644
PH: (559) 683-7661
FAX: (559) 683-0667
www.jssurveying.com

Date: MARCH 10, 2014

Job#: 14-042

File: 14-042PRE SUB

By: NAV

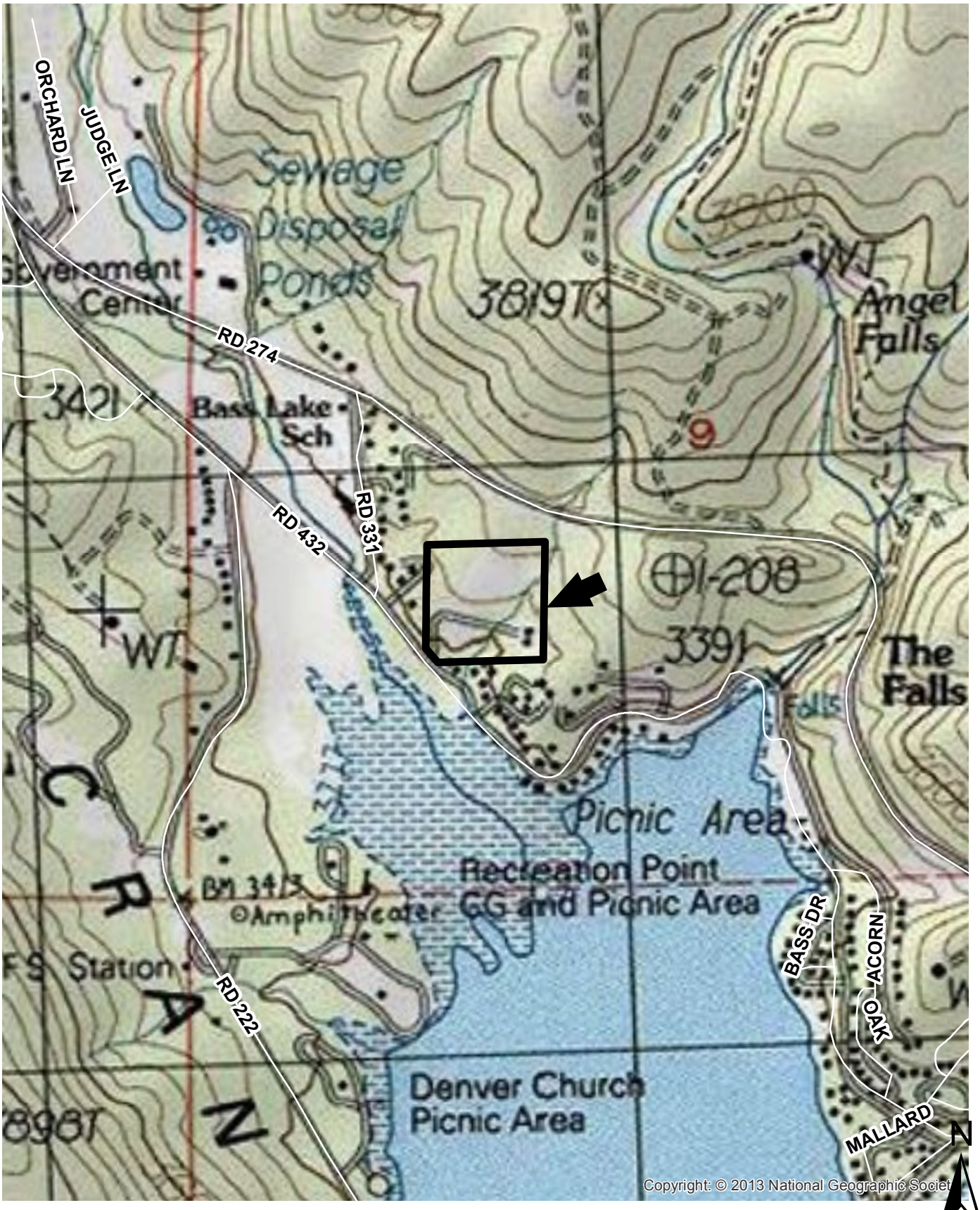
Sheet:

1 of 1

EXHIBIT E

AERIAL MAP

EXHIBIT F



TOPOGRAPHICAL MAP

EXHIBIT G

Environmental Checklist Form

Title of Proposal: Subdivision #2014-001, General Plan Amendment #2014-003, Rezone #2014-003

Date Checklist Submitted: 8/26/2014

Agency Requiring Checklist: Madera County Planning Department

Agency Contact: Jamie Bax, Senior Planner **Phone:** (559) 675-7821

Description of Initial Study/Requirement

The Initial Study is a public document used by the decision-making lead agency to determine whether a project may have significant effects on the environment. In the case of the proposed project, the Madera County Planning Department, acting as lead agency, will use the initial study to determine whether the project has a significant effect on the environment. In accordance with CEQA, Guidelines (Section 15063[a]), an environmental impact report (EIR) must be prepared if there is substantial evidence (such as results of the Initial Study) that a project may have significant effect on the environment. This is true regardless of whether the overall effect of the project would be adverse or beneficial. A negative declaration (ND) or mitigated negative declaration (MND) may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions to the project, or measures agreed to by the applicant, mitigate the potentially significant impacts to a less-than-significant level.

The initial study considers and evaluates all aspects of the project which are necessary to support the proposal. The complete project description includes the site plan, operational statement, and other supporting materials which are available in the project file at the office of the Madera County Planning Department.

Description of Project:
A division of 9.925 acres into 21 residential lots, a general plan amendment from PI (Public Institutional) to LDR (Low Density Residential), and a rezone from POS (Public Open Space) District to RUS (Residential Urban Single Family) District.

Project Location:
The project is located on the east side of Road 432, approximately 280 feet south of its intersection with Road 331 (no situs), Bass Lake.

Applicant Name and Address:
Paul Contreras
c/o J & S Surveying
PO Box 2292
Oakhurst, CA 93644

General Plan Designation:
PI - Public Institutional

Zoning Designation:
POS - Public Open Space

Surrounding Land Uses and Setting:
Rural residential, Forest Service land

Other Public Agencies whose approval is required:
None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

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

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

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

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

☐
Prior EIR or ND/MND Number

Signature Date

I. AESTHETICS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
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:

(a) No Impact
The project site is not located in an area which would have an effect on a scenic vista.

(b) No Impact
The project site is not located within a state scenic highway.

(c) Less than Significant Impact
The project will allow for 21 residential dwelling units in an area directly adjacent to an existing residential subdivision. The site is predominantly vacant with Forest Service land directly adjacent to the east. The proposed lot sizes are consistent with the surrounding area.

(d) Less than Significant Impact with Mitigation Incorporated
The project will result in additional dwellings which would create a new light source; however, with mitigation for light shielding, the impact will be less than significant.

General Information:

A nighttime sky in which stars are readily visible is often considered a valuable scenic/visual resource. In urban areas, views of the nighttime sky are being diminished by "light pollution." Light pollution, as defined by the International dark-Sky Association, is any adverse effect of artificial light, including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste. Two elements of light pollution may affect city residents: sky glow and light trespass. Sky glow is a result of light fixtures that emit a portion of their light directly upward into the sky where light scatters, creating an orange-yellow glow above a city or town. This light can interfere with views of the nighttime sky and can diminish the number of stars that are visible. Light trespass occurs when poorly shielded or poorly aimed fixtures cast light into unwanted areas, such as neighboring property and homes.

Light pollution is a problem most typically associated with urban areas. Lighting is necessary for nighttime viewing and for security purposes. However, excessive lighting or inappropriately designed lighting fixtures can disturb nearby sensitive land uses through indirect illumination. Land uses which are considered "sensitive" to this unwanted light include residences, hospitals, and care homes.

Daytime sources of glare include reflections off of light-colored surfaces, windows, and metal details on cars traveling on nearby roadways. The amount of glare depends on the intensity and direction of sunlight, which is more acute at sunrise and subset because the angle of the sun is lower during these times.

III. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

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

Discussion:

(a) No Impact

The project site is not currently in agricultural production and according to the Farmland Mapping & Monitoring Program the site has not been surveyed. There will be no impacts to agricultural lands.

(b) No Impact

Th property is not subject to a Williamson Act contract.

(c) No Impact

The project site is in an area surrounded by forest land; however, the current use is not used for timberland use. The project will have no impacts to forest land or timber land use

(d) No Impact

The project will not result in loss of forest land. The site is predominantly surrounded by rural residential use.

(e) No Impact

The project site is not located in a farmland area.

General Information

The California Land Conservation Act of 1965--commonly referred to as the Williamson Act--enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

The Department of Conservation oversee the Farmland Mapping and Monitoring Program. The Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status; the best quality land is called Prime Farmland. The maps are updated every two years with the use of a computer mapping system, aerial imagery, public review, and field reconnaissance. The program's definition of land is below:

PRIME FARMLAND (P): Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

FARMLAND OF STATEWIDE IMPORTANCE (S): Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

UNIQUE FARMLAND (U): Farmland of lesser quality soils used for the production of thestate's leading agricultural crops. This land is usually irrigated, but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

FARMLAND OF LOCAL IMPORTANCE (L): Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee.

GRAZING LAND (G): Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

URBAN AND BUILT-UP LAND (D): Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

OTHER LAND (X): Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact

If approved, the project will potentially allow an additional 21 dwellings to be built which will have a less than significant impact on air quality as it relates to construction and additional traffic. No comments were received from the San Joaquin Valley Air Pollution Control District on this project.

(b) Less than Significant Impact

See a.

(c) Less than Significant Impact

See a.

(d) Less than Significant Impact

See a.

(e) No Impact

No objectionable odors will be used as part of this project.

General Information

Global Climate Change

Climate change is a shift in the "average weather" that a given region experiences. This is measured by changes in temperature, wind patterns, precipitation, and storms. Global climate is the change in the climate of the earth as a whole. It can occur naturally, as in the case of an ice age, or occur as a result of anthropogenic activities. The extent to which anthropogenic activities influence climate change has been the subject of extensive scientific inquiry in the past several decades. The Intergovernmental Panel on Climate Change (IPCC), recognized as the leading research body on the subject, issued its Fourth Assessment Report in February 2007, which asserted that there is "very high confidence" (by IPCC definition a 9 in 10 chance of being correct) that human activities have resulted in a net warming of the planet since 1750.

CEQA requires an agency to engage in forecasting "to the extent that an activity could reasonably be expected under the circumstances. An agency cannot be expected to predict the future course of governmental regulation or exactly what information scientific advances may ultimately reveal" (CEQA Guidelines Section 15144, Office of Planning and Research commentary, citing the California Supreme Court decision in Laurel Heights Improvement Association v. Regents of the University of California [1988] 47 Cal. 3d 376).

Recent concerns over global warming have created a greater interest in greenhouse gases (GHG) and their contribution to global climate change (GCC). However at this time there are no generally accepted thresholds of significance for determining the impact of GHG emissions from an individual project on GCC. Thus, permitting agencies are in the position of developing policy and guidance to ascertain and mitigate to the extent feasible the effects of GHG, for CEQA purposes, without the normal degree of accepted guidance by case law.

IV. BIOLOGICAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
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:

(a) Less than Significant Impact with Mitigation Incorporated

Results from the CNNDB, USFWS, and CNPS search indicated that no special status animal or plant species occur within the bounds of the project. On-site biologists did not identify wildlife species in the vicinity of the project area that are protected by state and/or federal agencies. There are no anticipated impacts to special status animal species potentially occuring within the bounds of the project area if the mitigation measures listed in the MMRP and Biological Assessment are implemented.

(b) Less than Significant Impact with Mitigation Incorporated

The area is not considered a riparian corridor. The swales and ephemeral drainage communities were identified in the biological assessment conducted for the project site, but are isolated drainages since they end just beyond the property boundary and are intercepted and manipulated by the roadway and residential developments down gradient of the subject property.

(c) No Impact

No Impact. There are no federally protected wetlands as defined by Section 404 of the Clean Water Act on the project site.

(d) Less than Significant Impact with Mitigation Incorporated

Portions of the project area provide suitable nesting habitat for various species of raptors. Implementation of mitigation measures will reduce impacts to a less than significant impact.

(e) No Impact

The project site has been substantially brushed and improved upon for facilities. There will be no impacts to any policies or ordinances protecting biological resources.

(f) No Impact

See e.

General Information

Special Status Species include:

- Plants and animals that are legally protected or proposed for protection under the California Endangered Species Act (CESA) or Federal Endangered Species Act (FESA);
- Plants and animals defined as endangered or rare under the California Environmental Quality Act (CEQA) §15380;
- Animals designated as species of special concern by the U.S. Fish and Wildlife Service (USFWS) or California Department of Fish and Game (CDFG);
- Animals listed as "fully protected" in the Fish and Game Code of California (§3511, §4700, §5050 and §5515); and
- Plants listed in the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California.

A review of both the County's and Department of Fish and Game's databases for special status species have identified the following species:

Species	Federal Listing	State Listing	Dept. of Fish and Game Listing	CNPS Listing
Species are listed in Biological Assessment				

List 1A: Plants presumed extinct

List 1B: Plants Rare, Threatened, or Endangered in California and elsewhere.

List 2: Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere

List 3 Plants which more information is needed – a review list

List 4: Plants of Limited Distributed - a watch list

Ranking

0.1 – Seriously threatened in California (high degree/immediacy of threat)

0.2 – Fairly threatened in California (moderate degree/immediacy of threat)

0.3 – Not very threatened in California (low degree/immediacy of threats or no current threats known)

Effective January 1, 2007, Senate Bill 1535 took effect that has changed de minimis findings procedures. The Senate Bill takes the de minimis findings capabilities out of the Lead Agency hands and puts the process into the hands of the California Department of Fish and Wildlife (formally the California Department of Fish and Game). A Notice of Determination filing fee is due each time a NOD is filed at the jurisdictions Clerk's Office. The authority comes under Senate Bill 1535 (SB 1535) and Department of Fish and Wildlife Code 711.4. Each year the fee is evaluated and has the potential of increasing. For the most up-to-date fees, please refer to http://www.dfg.ca.gov/habcon/ceqa/ceqa_changes.html.

The Valley elderberry longhorn beetle was listed as a threatened species in 1980. Use of the elderberry bush by the beetle, a wood borer, is rarely apparent. Frequently, the only exterior evidence of the elderberry's use

by the beetle is an exit hole created by the larva just prior to the pupal stage. According to the USFWWS, the Valley Elderberry Longhorn Beetle habitat is primarily in communities of clustered Elderberry plants located within riparian habitat. The USFWS stated that VELB habitat does not include every Elderberry plant in the Central Valley, such as isolated, individual plants, plants with stems that are less than one inch in basal diameter or plants located in upland habitat.

V. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
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:

(a) No Impact

No historical resources are known to exist on the project site. The site has been primarily used for maintenance and utility storage for County services.

(b) Less than Significant Impact with Mitigation Incorporated

No archeological resources are known to exist on the project site; however, comments were received from the North Fork Rancheria expressing their concern regarding archeologic deposits in the area. With mitigation measures for on site construction monitoring, impacts to archeological resources will be less than significant.

(c) Less than Significant Impact

No known unique geological features in the vicinity of the project site exist. There are no known fossil bearing sediments on the project site.

(d) Less than Significant Impact with Mitigation Incorporated

No known human remains exist on the project site. If human remains are discovered as a result of the construction of additional dwellings, the Coronor's office shall be contacted immediately.

General Information

Public Resource Code 5021.1(b) defines a historic resource as "any object building, structure, site, area or place which is historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." These resources are of such import, that it is codified in CEQA (PRC Section 21000) which prohibits actions that "disrupt, or adversely affect a prehistoric or historic archaeological site or a property of historical or cultural significance to a community or ethnic or social groups; or a paleontological site except as part of a scientific study."

Archaeological importance is generally, although not exclusively, a measure of the archaeological research value of a site which meets one or more of the following criteria:

- Is associated with an event or person of recognized significance in California or American history or of recognized scientific importance in prehistory.
- Can provide information which is both of demonstrable public interest and useful in addressing scientifically consequential and reasonable archaeological research questions.
- Has a special or particular quality such as oldest, best example, largest, or last surviving ex-

ample of its kind.

- Is at least 100 years old and possesses substantial stratigraphic integrity (i.e. it is essentially undisturbed and intact).

- Involves important research questions that historic research has shown can be answered only with archaeological methods.

Reference CEQA Guidelines §15064.5 for definitions.

Most of the archaeological survey work in the County has taken place in the foothills and mountains. This does not mean, however, that no sites exist in the western part of the County, but rather that this area has not been as thoroughly studied. There are slightly more than 2,000 recorded archaeological sites in the County, most of which are located in the foothills and mountains. Recorded prehistoric artifacts include village sites, camp sites, bedrock milling stations, pictographs, petroglyphs, rock rings, sacred sites, and resource gathering areas. Madera County also contains a significant number of potentially historic sites, including homesteads and ranches, mining and logging sites and associated features (such as small camps, railroad beds, logging chutes, and trash dumps.

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

(a-i) No Impact

There are not any active faults in the area that would expose future residents to any seismic activities.

(a-ii) No Impact

There are not any active faults in the area that would expose future residents to any seismic

activities.

(a-iii) No Impact

There are not any active faults in the area that would expose future residents to any seismic activities.

(a-iv) No Impact

There are not any active faults in the area that would expose future residents to any seismic activities, including landslides.

(b) No Impact

The project would be required to obtain grading permits that would ensure that proper practices are used in order to limit the loss of topsoil and soil erosion.

(c) No Impact

The area is not known for soil that is unstable. The project would be required to obtain grading permits that would ensure that proper practices are used in order to promote stability.

(d) No Impact

The area is not known for soil that is unstable. The project would be required to obtain grading permits that would ensure that proper practices are used in order to promote stability.

(e) Less than Significant Impact

This development is located within Madera County Service Area (CSA) SA 2 and is included with the County Sewer Master Plan and therefore shall connect to it as an approved community sewer system for each individual lot within in the subdivision. The development shall comply with all CSA requirements.

General Information

Madera County is divided into two major physiographic and geologic provinces: the Sierra Nevada Range and the Central Valley. The Sierra Nevada physiographic province in the northeastern portion of the county is underlain by metamorphic and igneous rock. It consists mainly of homogenous types of granitic rocks, with several islands of older metamorphic rock. The central and western parts of the county are part of the Central Valley province, underlain by marine and non-marine sedimentary rocks.

The foothill area of the county is essentially a transition zone, containing old alluvial soils that have been dissected by the west-flowing rivers and streams which carry runoff from the Sierra Nevada's.

Seismicity varies greatly between the two major geologic provinces represented in Madera County. The Central valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada's, partly within Madera County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Ranges on the west side of the Central Valley are also a result of these forces, and continued movement of the Pacific and North American tectonic plates continues to elevate the ranges. Most of the seismic hazards in Madera County result from movement along faults associated with the creation of these ranges.

There are no active or potentially active faults of major historic significance within Madera County. The County does not lie within any Alquist Priolo Special Studies Zone for surface faulting or fault creep.

However, there are two significant faults within the larger region that have been and will continue to be, the principle sources of potential seismic activity within Madera County.

San Andreas Fault: The San Andreas Fault lies approximately 45 miles west of the county line. The fault has a long history of activity and is thus a concern in determining activity in the area.

Owens Valley Fault Group: The Owens Valley Fault Group is a complex system containing both active and potentially active faults on the eastern base of the Sierra Nevada Range. This group is located approximately 80 miles east of the County line in Inyo County. This system has historically been the source of seismic activity within the County.

The *Draft Environmental Impact Report* for the state prison project near Fairmead identified faults within a 100 mile radius of the project site. Since Fairmead is centrally located along Highway 99 within the county, this information provides a good indicator of the potential seismic activity which might be felt within the County. Fif-

teen active faults (including the San Andreas and Owens Valley Fault Group) were identified in the *Preliminary Geotechnical Investigation*. Four of the faults lie along the eastern portion of the Sierra Nevada Range, approximately 75 miles to the northeast of Fairmead. These are the Parker Lake, Hartley Springs, Hilton Creek and Mono Valley Faults. The remaining faults are in the western portion of the San Joaquin Valley, as well as within the Coast Range, approximately 47 miles west of Fairmead. Most of the remaining 11 faults are associated with the San Andreas, Calaveras, Hayward and Rinconada Fault Systems which collectively form the tectonic plate boundary of the Central Valley.

In addition, the Clovis Fault, although not having any historic evidence of activity, is considered to be active within quaternary time (within the past two million years), is considered potentially active. This fault line lies approximately six miles south of the Madera County line in Fresno County. Activity along this fault could potentially generate more seismic activity in Madera County than the San Andreas or Owens Valley fault systems. However, because of the lack of historic activity along the Clovis Fault, there is inadequate evidence for assessing maximum earthquake impacts.

Seismic ground shaking, however, is the primary seismic hazard in Madera County because of the County's seismic setting and its record of historical activity (General Plan Background Element and Program EIR). The project represents no specific threat or hazard from seismic ground shaking, and all new construction will comply with current local and state building codes. Other geologic hazards, such as landslides, lateral spreading, subsidence, and liquefaction have not been known to occur within Madera County.

According to the Madera County General Plan Background Report, groundshaking is the primary seismic hazard in Madera County. The valley portion of Madera County is located on alluvium deposits, which tend to experience greater groundshaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from groundshaking than those located in the foothill and mountain areas.

Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground shaking. According to the Madera County General Plan Background Report, although there are areas of Madera County where the water table is at 30 feet or less below the surface, soil types in the area are not conducive to liquefaction because they are either too coarse in texture or too high in clay content; the soil types mitigate against the potential for liquefaction.

VII. GREENHOUSE GAS EMISSIONS - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Discussion:

(a) Less than Significant Impact

The project will be emit greenhouse gas however, the impacts for grading and construction and overall traffic increases will be less than significant.

(b) Less than Significant Impact

See a.

General Information

Greenhouse Gas (GHG) Emissions: The potential effect of greenhouse gas emission on global climate change is an emerging issue that warrants discussion under CEQA. Unlike the pollutants discussed previously that may have regional and local effects, greenhouse gases have the potential to cause global changes in the environment. In addition, greenhouse gas emissions do not directly produce a localized impact, but may cause an

indirect impact if the local climate is adversely changed by its cumulative contribution to a change in global climate. Individual development projects contribute relatively small amounts of greenhouse gases that when added to other greenhouse gas producing activities around the world would result in an increase in these emissions that have led many to conclude is changing the global climate. However, no threshold has been established for what would constitute a cumulatively considerable increase in greenhouse gases for individual development projects. The State of California has taken several actions that help to address potential global climate change impacts.

Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, outlines goals for local agencies to follow in order to bring Greenhouse Gas (GHG) emissions to 1990 levels (a 25% overall reduction) by the year 2020. The California Air Resources Board (CARB) holds the responsibility of monitoring and reducing GHG emissions through regulations, market mechanisms and other actions. A Draft Scoping Plan was adopted by CARB in order to provide guidelines and policy for the State to follow in its steps to reduce GHG. According to CARB, the scoping plan's GHG reduction actions include: direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

Following the adoption of AB 32, the California State Legislature adopted Senate Bill 375, which became the first major bill in the United States that would aim to limit climate change by linking directly to "smart growth" land use principles and transportation. It adds incentives for projects which intend to be in-fill, mixed use, affordable and self-contained developments. SB 375 includes the creation of a Sustainable Communities Strategy (SCS) through the local Metropolitan Planning Organizations (MPO) in order to create land use patterns which reduce overall emissions and vehicle miles traveled. Incentives include California Environmental Quality Act streamlining and possible exemptions for projects which fulfill specific criteria.

VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
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?	☐	☐	☒	☐

Discussion:

(a) No Impact
The propsed project is a division of land. No hazardous materials are proposed to be used as a part of this project.
(b) No Impact
See a.
(c) No Impact
See a.
(d) No Impact
The property is not located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5.
(e) No Impact
The project site is not located within an airport land use plan or within two miles of a public airport.
(f) No Impact
The project site is not located within the vicinity of a private airstrip.
(g) No Impact
Thr project will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The project site has adequate access to a through road.
(h) Less than Significant Impact
The project site is located within an area which may be affected by wildland fires, however the area is built up residentially and there is adequate access to existing through roads.

General Information

Any hazardous material because of its quantity, concentration, physical or chemical properties, pose a significant present or potential hazard to human health and safety, or the environment the California legislature adopted Article I, Chapter 6.95 of the Health and Safety Code, Sections 25500 to 25520 that requires any business handling or storing a hazardous material or hazardous waste to establish a Business Plan. The information obtained from the completed Business Plans will be provided to emergency response personnel for a better-prepared emergency response due to a release or threatened release of a hazardous material and/or hazardous waste.

Business owners that handle or store a hazardous material or mixtures containing a hazardous material, which has a quantity at any one time during the year, equal to or greater than:

1) A total of 55 gallons,
2) A total of 500 pounds,
3) 200 cubic feet at standard temperature and pressure of compressed gas,
4) any quantity of Acutely Hazardous Material (AHM).

Assembly Bill AB 2286 requires all business and agencies to report their Hazardous Materials Business Plans to the Certified Unified Program Agency (CUPA) information electronically at http://cers.calepa.ca.gov

IX.	HYDROLOGY AND WATER QUALITY – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact

a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☒
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:

(a) No Impact

This development is located within Madera County Service Area (CSA) SA 2 S and is included with the County Sewer Master Plan and therefore shall connect to it as an approved community sewer system for each individual parcel within the subdivision. The development shall comply with all CSA requirements. The project is required to comply with all regulations and rules enforced by the Madera County Environmental Health Department during development of the water system which requires that water quality pass specific standards and requirements.

(b) Less than Significant Impact

The project will connect to Bass Lake Water Company which has already issued a will serve letter for the project.

(c) No Impact

Grading will be part of the project during construction. Drainage will be required to comply with rules and regulations enforced by the Public Works Department in order to ensure that no impacts occur to adjacent properties or rivers/streams.

(d) No Impact

The ephemeral drainage on site will not be impacted due to the proposed placement of the open space buffer. No rivers or streams will be impacted by this project.

(e) Less than Significant Impact

Runoff will be created by impervious surfaces through paving of roads and construction;

however, as conditioned for drainage, impacts will be less than significant.

(f) Less than Significant Impact

The applicant is required to comply with all County and State regulations in regards to water use.

(g) No Impact

The project site is not located within a 100-year flood hazard area.

(h) No Impact

See g.

(i) No Impact

The project site is not located in an area which would expose people to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. The project will not be affected by seiche, tsunami, or mudflow.

(j) No Impact

See i.

General Information

Groundwater quality contaminants of concern in the Valley Floor include high salinity (total dissolved solids), nitrate, uranium, arsenic, methane gas, iron, manganese, slime production, and dibromochloropropane with the maximum contaminant level exceeded in some areas. Despite the water quality issues noted above, most of the groundwater in the Valley Floor is of suitable quality for irrigation. Groundwater of suitable quality for public consumption has been demonstrated to be present in most of the area at specific depths.

Groundwater quality contaminants of concern in the Foothills and Mountains include manganese, iron, high salinity, hydrogen sulfide gas, uranium, nitrate, arsenic, and methylbutylethylene (MTBE) with the maximum concentration level being exceeded in some areas. Despite these problems, there are substantial amounts of good-quality groundwater in each of the areas evaluated in the Foothills and Mountains. Iron and manganese are commonly removed by treatment. Uranium treatment is being conducted on a well by the Bass Lake Water Company.

A seiche is an occasional and sudden oscillation of the water of a lake, bay or estuary producing fluctuations in the water level and caused by wind, earthquakes or changes in barometric pressure. A tsunami is an unusually large sea wave produced by seaquake or undersea volcanic eruption (from the Japanese language, roughly translated as “harbor wave”). According to the California Division of Mines and Geology, there are no active or potentially active faults of major historic significance within Madera County. As this property is not located near any bodies of water, no impacts are identified.

The flood hazard areas of the County of Madera are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstruction in areas of special flood hazards which increase flood heigh and velocities also contribute to flood loss.

X. LAND USE AND PLANNING – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
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:

(a) No Impact

The proposed project does not have the potential to divide an established community.

(b) No Impact

The project does not propose a change to the use of the land.

(c) Less than Significant Impact

If approved, the project will potentially allow additional dwellings to be built. The construction of these dwellings will have a less than significant impact to any applicable habitat conservation plan or natural community conservation plan.

XI. MINERAL RESOURCES – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion:

(a) No Impact

There is no potential for this project to 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) No Impact

See a.

XII. NOISE – Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	☐	☐	☐	☒
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 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:

(a) No Impact

The proposed project is a division of land for residential use. There is no potential for exposure of persons to or generation of noise levels in excess of standards established in the general plan.

(b) Less than Significant Impact

If approved, the project will potentially allow additional dwellings to be constructed. Temporary groundborne vibrations from normal construction activities may occur.

(c) Less than Significant Impact

Additional dwellings may raise the amount of noise generated in the area; however, the impact will be less than significant.

(d) Less than Significant Impact

See c.

(e) No Impact

The project site is not located within an airport land use plan, within two miles of a public airport, or within the vicinity of a private airstrip.

(f) No Impact

See e.

General Discussion

The Noise Element of the Madera County General Plan (Policy 7.A.5) provides that noise which will be created by new non-transportation noise sources shall be mitigated so as not to exceed the Noise Element noise level standards on lands designated for noise-sensitive uses. However, this policy does not apply to noise levels associated with agricultural operations. All the surrounding properties, while include some residential units, are designated and zoned for agricultural uses. This impact is therefore considered less than significant.

Construction noise typically occurs intermittently and varies depending upon the nature or phase of construction (e.g. demolition/land clearing, grading and excavation, erection). The United States Environmental Protection Agency has found that the average noise levels associated with construction activities typically range from approximately 76 dBA to 84 dBA Leq, with intermittent individual equipment noise levels ranging from approximately 75 dBA to more than 88 dBA for brief periods.

Short Term Noise

Noise from localized point sources (such as construction sites) typically decreases by approximately 6 dBA with each doubling of distance from source to receptor. Given the noise attenuation rate and assuming no noise shielding from either natural or human-made features (e.g. trees, buildings, fences), outdoor receptors within approximately 400 feet of construction site could experience maximum noise levels of greater than 70 dBA when onsite construction-related noise levels exceed approximately 89 dBA at the project site boundary. Construction activities that occur during the more noise-sensitive eighteen hours could result in increased levels of annoyance and sleep disruption for occupants of nearby existing residential dwellings. As a result, noise-generating construction activities would be considered to have a potentially significant short-term impact. However with implementation of mitigation measures, this impact would be considered less than significant.

Long Term Noise

Mechanical building equipment (e.g. heating, ventilation and air conditioning systems, and boilers), associated with the proposed structures, could generate noise levels of approximately 90 dBA at 3 feet from the source. However, such mechanical equipment systems are typically shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures.

Landscape maintenance equipment, such as leaf blowers and gasoline powered mowers, associated with the proposed operations could result in intermittent noise levels that range from approximately 80 to 100 dBA at 3 feet, respectively. Based on an equipment noise level of 100 dBA, landscape maintenance equipment (assuming a noise attenuation rate of 6 dBA per doubling of distance from the source) may result in exterior noise levels of approximately 75 dBA at 50 feet.

MAXIMUM ALLOWABLE NOISE EXPOSURE FOR
NON-TRANSPORTATION NOISE SOURCES*

		Residential	Commercial	Industrial (L)	Industrial (H)	Agricultural
Residential	AM	50	60	55	60	60
	PM	45	55	50	55	55
Commercial	AM	60	60	60	65	60
	PM	55	55	55	60	55
Industrial (L)	AM	55	60	60	65	60
	PM	50	55	55	60	55
Industrial (H)	AM	60	65	65	70	65
	PM	55	60	60	65	60
Agricultural	AM	60	60	60	65	60
	PM	55	55	55	60	55

*As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers at the property line.

AM = 7:00 AM to 10:00 PM
PM = 10:00 PM to 7:00 AM
L = Light
H = Heavy

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

Vibration perception threshold: The minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or visual observation of moving objects. The perception threshold shall be presumed to be a motion velocity of one-tenth (0.1) inches per second over the range of one to one hundred Hz.

Reaction of People and Damage to Buildings from Continuous Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.006 to 0.019	Threshold of perception; possibility of intrustion	Damage of any type unlikely
0.08	Vibration readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Continuous vibration begins to annoy people	Virtually no risk of architectural damage to normal buildings
0.20	Vibration annoying to people in buildings	Risk of architectural damage to normal dwellings such as plastered walls or ceilings
0.4 to 0.6	Vibration considered unpleasant by people subjected to continuous vibrations vibration	Architectural damage and possibly minor structural damage
Source: Whiffen and Leonard 1971		

XIII. POPULATION AND HOUSING -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact

The proposed project is a minor division of land resulting in 21 lots. The impact to population growth will add to the what is already existing in the area; however, the impact will be less than significant.

(b) No Impact

The proposed project is not designed to induce population growth, and will not result in substantial direct or indirect growth inducement. No housing will be displaced as a result of the project. No people will be displaced as a result of the project.

(c) No Impact

See b.

General Information

According to the California Department of Finance, in January of 2012, the County wide population was 152,074 with a total of 49,334 housing units. This works out to an average of 3.33 persons per housing unit. The vacancy rate was 11.84%.

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

Discussion:

(a-i) Less than Significant Impact

The proposed project is a division of land for residential development. 21 lots are proposed which will have a less than significant impact on public services. The Bass Lake Water

Company has already issued a Will Serve letter for water service for the development.

(a-ii) Less than Significant Impact

See a-i.

(a-iii) Less than Significant Impact

See a-i.

(a-iv) Less than Significant Impact

See a-i.

(a-v) Less than Significant Impact

See a-i.

General Information

The proposed project site is within the jurisdiction of the Madera County Fire Department. Crime and emergency response is provided by the Madera County Sherriff's Department. The proposed project will have no impact on local parks and will not create demand for additional parks.

The Madera County Fire Department exists through a contract between Madera County and the CALFIRE (California Department of Forestry and Fire Prevention) and operates six stations for County responses in addition to the state-funded CALFIRE stations for state responsibility areas. Under an "Amador Plan" contract, the County also funds the wintertime staffing of four fire seasonal CALFIRE stations. In addition, there are ten paid-call (volunteer) fire companies that operate from their own stations. The administrative, training, purchasing, warehouse, and other functions of the Department operate through a single management team with County Fire Administration.

A Federal Bureau of Investigations 2009 study suggests that there is on average of 2.7 law enforcement officials per 1,000 population for all reporting counties. The number for cities had an average of 1.7 law enforcement officials per 1,000 population.

Single Family Residences have the potential for adding to school populations. The average per Single Family Residence is:

Grade	Student Generation per Single Family Residence
K – 6	0.425
7 – 8	0.139
9 – 12	0.214

The Madera County General Plan allocates three acres of park available land per 1,000 residents' population.

XV. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
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:

(a) Less than Significant Impact

The proposed project is division of land resulting in 21 lots. The impact to the use of neighborhood and regional parks will be less than significant.

(b) Less than Significant Impact with Mitigation Incorporated

The new development will require payment of park fees in accordance with Title 15 of the Madera County Code and the Quimby Act.

General Information

The Madera County General Plan allocates three acres of park available land per 1,000 residents' population.

XVI. TRANSPORTATION/TRAFFIC -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☒
b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards, established by the county congestion management agency for designated roads or highways?	☐	☒	☐	☐
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) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

Discussion:

(a) Less than Significant Impact

The project is in compliance with all road standards and has adequate access to a through road. The project will not conflict with any plans, ordinances or policies.

(b) Less than Significant Impact with Mitigation Incorporated

Based on the ITE Trip Generation book, it is anticipated 21 PM peak hour trips will result from the project. Caltrans has predicted a portion of these trips will impact the SR 41 intersection at Road 222. Proportional share fees are mitigated for to improve this intersection.

(c) No Impact

The proposed project is a division of land which will not result in changes to air traffic.

(d) Less than Significant Impact

Road improvements are required to comply with all standards and regulations as set forth by the Public Works Department.

(e) No Impact

There is adequate access to the project site. Grant easement deeds are currently being

processed with adjacent properties for access.

(f) No Impact

There will be no impacts to alternative transportation systems. The project is a single family residential development.

General Information

According to the Institute of Traffic Engineers (7th Edition, pg. 268-9) the trips per day for one single-family residence are 9.57.

Madera County currently uses Level Of Service "D" as the threshold of significance level for roadway and intersection operations. The following charts show the significance of those levels.

Level of Service	Description	Average Control Delay (sec./car)
A	Little or no delay	0 – 10
B	Short traffic delay	>10 – 15
C	Medium traffic delay	> 15 – 25
D	Long traffic delay	> 25 – 35
E	Very long traffic delay	> 35 – 50
F	Excessive traffic delay	> 50

Unsignalized intersections.

Level of Service	Description	Average Control Delay (sec./car)
A	Uncongested operations, all queues clear in single cycle	< 10
B	Very light congestion, an occasional phase is fully utilized	>10 – 20
C	Light congestion; occasional queues on approach	> 20 – 35
D	Significant congestion on critical approaches, but intersection is functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing queues formed.	> 35 – 55
E	Severe congestion with some long-standing queues on critical approaches. Traffic queues may block nearby intersection(s) upstream of critical approach(es)	> 55-80
F	Total breakdown, significant queuing	> 80

Signalized intersections.

Level of service	Freeways	Two-lane rural highway	Multi-lane rural highway	Expressway	Arterial	Collector
A	700	120	470	720	450	300
B	1,100	240	945	840	525	350
C	1,550	395	1,285	960	600	400
D	1,850	675	1,585	1,080	675	450
E	2,000	1,145	1,800	1,200	750	500

Capacity per hour per lane for various highway facilities

Madera County is predicted to experience significant population growth in the coming years (62.27 percent between 2008 and 2030). Accommodating this amount of growth presents a challenge for attaining and maintain air quality standards and for reducing greenhouse gas emissions. The increase in population is expected to be accompanied by a similar increase in vehicle miles traveled (VMT) (61.36 percent between 2008 and 2030).

Horizon Year	Total Population (thousands)	Employment (thousands)	Average Weekday VMT (millions)	Total Lane Miles
2010	175	49	5.4	2,157
2011	180	53	5.5	NA
2017	210	63	6.7	NA
2020	225	68	7.3	2,264
2030	281	85	8.8	2,277

Source: MCTC 2007 RTP

The above table displays the predicted increase in population and travel. The increase in the lane miles of roads that will serve the increase in VMT is estimated at 120 miles or 0.94 percent by 2030. This indicates that roadways in Madera County can be expected to become much more crowded than is currently experienced.

Emissions of CO (Carbon Monoxide) are the primarily mobile-source criteria pollutant of local concern. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed and delay. Carbon monoxide transport is extremely limited; it disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested roadway or intersection may reach unhealthy levels, affecting local sensitive receptors (residents, school children, hospital patients, the elderly, etc.). As a result, the SJVAPCP recommends analysis of CO emissions of at a local rather than regional level. Local CO concentrations at intersections projected to operate at level of service (LOS) D or better do not typically exceed national or state ambient air quality standards. In addition, non-signalized intersections located within areas having relatively low background concentrations do not typically have sufficient traffic volumes to warrant analysis of local CO concentrations.

XVII. UTILITIES AND SERVICE SYSTEMS – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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:

(a) No Impact

The proposed project is required to connect to existing Service Area 2 which provides sewer service. Sewer connections are available for the project. Water service will be provided by

the Bass Lake Water Company. A Will Serve letter has already been provided for water service.

(b) No Impact

The proposed project does not require the construction of new water or wastewater facilities. The project will hook into an existing Service Area (SA 2) for sewer services and Bass Lake Water Company for water service.

(c) Less than Significant Impact

The proposed project requires the construction of new storm water drainage facilities; however, the Public Works Department will review final construction plans to ensure all storm water facilities are adequate.

(d) Less than Significant Impact

Water supply is being provided by the Bass Lake Water Company. A Will Serve letter has already been provided for the project.

(e) Less than Significant Impact

20 sewer units have been secured for the project. One additional unit must be acquired by the applicant.

(f) Less than Significant Impact

Madera County is served by the landfill in Fairmead which complies with federal, state, and local statutes.

(g) Less than Significant Impact

See f.

General Discussion

Madera County has 34 County Service Areas and Maintenance Districts that together operate 30 small water systems and 16 sewer systems. Fourteen of these special districts are located in the Valley Floor, and the remaining 20 special districts are in the Foothills and Mountains. MD-1 Hidden Lakes, Bass Lake (SA-2B and SA-2C) and SA-16 Sumner Hill have surface water treatment plants, with the remaining special districts relying solely on groundwater.

The major wastewater treatment plants in the County are operated in the incorporated cities of Madera and Chowchilla and the community of Oakhurst. These wastewater systems have been recently or are planned to be upgraded, increasing opportunities for use of recycled water. The cities of Madera and Chowchilla have adopted or are in the process of developing Urban Water Management Plans. Most of the irrigation and water districts have individual groundwater management plans. All of these agencies engage in some form of groundwater recharge and management.

Groundwater provides almost the entire urban and rural water use and about 75 percent of the agricultural water use in the Valley Floor. The remaining water demand is met with surface water. Almost all of the water use in the Foothills and Mountains is from groundwater with only three small water treatment plants relying on surface water from the San Joaquin River and its tributaries.

In areas of higher precipitation (Oakhurst, North Fork, and the topographically higher part of the Coarsegold Area), groundwater recharge is adequate for existing uses. However, some problems have been encountered in parts of these areas due to well interference and groundwater quality issues. In areas of lower precipitation (Raymond-Hensley Lake and the lower part of the Coarsegold area), groundwater recharge is more limited, possibly requiring additional water supply from other sources to support future development.

Madera County is served by a solid waste facility (landfill) in Fairmead. There is a transfer station in North Fork. The Fairmead facility also provides for Household Hazardous Materials collections on Saturdays. The unincorporated portion of the County is served by Red Rock Environmental Group. Above the 1000 foot elevation, residents are served by EMADCO services for solid waste pick-up.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☒	☐
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:

(a) Less than Significant Impact

The project is required to mitigate for biological impacts and cultural resources impacts. Mitigation measures have been addressed in the Biological Assessment submitted by the applicant. Cultural Resources momitoring is also required prior to construction or grading.

(b) Less than Significant Impact

Cumulative traffic impacts to the intersection of SR 41 and Road 222 are mitigated for. The amount of water used and an added light source to the area will add to the cumulative amount, but will be individually limited.

(c) Less than Significant Impact

Additional traffic will be added to the area and additional resources will be utilized; however impacts to human beings will be less than significant.

General Information

CEQA defines three types of impacts or effects:

- Direct impacts are caused by a project and occur at the same time and place (CEQA §15358(a)(1).
- Indirect or secondary impacts are reasonably foreseeable and are caused by a project but occur at a different time or place. They may include growth inducing effects and other effects related to changes in the pattern of land use, population density or growth rate and related effects on air, water and other natural systems, including ecosystems (CEQA §15358(a)(2).
- Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (CEQA §15355(b)). Impacts from individual projects may be considered minor, but considered retroactively with other projects over a period of time, those impacts could be significant, especially where listed or sensitive species are involved.

Documents/Organizations/Individuals Consulted
In Preparation of this
Initial Study

Madera County General Plan

California Department of Finance

California Integrated Waste Management Board

California Environmental Quality Act Guidelines

United States Environmental Protection Agency

Caltrans website http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm accessed October 31, 2008

California Department of Fish and Game "California Natural Diversity Database" http://www.dfg.ca.gov/biogeodata/cnddb/

Madera County Integrated Regional Water Management Plan.

State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark.* Sacramento, California, May 2012

EXHIBIT H

MITIGATED NEGATIVE DECLARATION MND

RE: Subdivision #2014-001, General Plan #2014-003, Rezone #2014-003

LOCATION AND DESCRIPTION OF PROJECT:

The project is located on the east side of Road 432, approximately 280 feet south of its intersection with Road 331 (no situs), Bass Lake.

ENVIRONMENTAL IMPACT:

No adverse environmental impact is anticipated from this project. The following mitigation measures are included to avoid any potential impacts.

BASIS FOR NEGATIVE DECLARATION:

See attached Mitigation Monitoring and Reporting Program

_____

Madera County Environmental Committee

A copy of the negative declaration and all supporting documentation is available for review at the Madera County Planning Department, 2037 West Cleveland Avenue, Madera, California.

DATED:

FILED:

PROJECT APPROVED:

MITIGATION MONITORING REPORT

MND # 2014-26

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Aesthetics								
1	All outdoor lighting shall be shielded and directed away from neighboring properties.							
Agricultural Resources								
Air Quality								
Biological Resources								
1	Prior to construction of the roadways and infrastructure within this habitat, a qualified biologist shall conduct a preconstruction survey for special-status species in areas slated for development of the tentative map improvements. Only if special-status species are identified during the preconstruction survey will an addendum to this report be prepared addressing the species.							
2	If special-status are found in areas slated for removal, construction shall be delayed until further consultations with the appropriate agencies are completed.							
3	Preconstruction surveys for special status plant species shall be conducted in all areas where roadway and infrastructure development depicted on the tentative map is slated to occur. These surveys shall be conducted by a qualified botanist pursuant to “Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants” (USFWS, 1996a). Only if special-status species are identified during the survey will an addendum to this report be prepared addressing the species.							

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
4	In the event that special status plant species are identified, a mitigation measures shall be conducted in accordance with the California Native Plant Society's "Policy on Mitigation Regarding Impacts to Rare, Threatened, and Endangered Plants" (CNPS, 1991).							
5	During the raptor nesting season the applicant shall have a qualified biologist survey construction areas where roadway and infrastructure development depicted on the tentative map is slated to occur and their immediate vicinity for active raptor nests. The surveys shall be conducted according to a protocol developed in consultation with the California Department of Fish and Game. Only if special-status species are identified during the survey will an addendum to this report be prepared addressing the species.							
6	Active raptor nests discovered during the preconstruction survey shall be marked on a map. A construction-free setback or buffer shoud be established around each active nest by means of fencing or stakes with conspicuous flagging. No construction activities shall be permitted within the buffer area until the young have fledged or the species are no longer attempting to nest.							
Cultural Resources								
1	Applicant shall comply with the request of the North Fork Rancheria to have a cultural monitor on site during grading/construction.							
Hazards and Hazardous Materials								
1	Applicant shall provide two points of ingress and egress as per General Plan policy 6.C.5.							
Hydrology and Water Quality								

No.	Mitigation Measure	Monitoring Phase	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
						Initials	Date	Remarks
Land Use and Planning								
Mineral Resources								
Noise								
Population and Housing								
Public Services								
Recreation								
1	Applicant shall pay parks/recreational faciltities fees in accordance with the Quimby Act and Title 15 of the Madera County Code.							
Transportation and Traffic								
1	The applicant shall pay per trip costs as indicated by Caltrans. This project's proportional share for signalization of SR 41 and Road 222 is $5,056 (4 trips X $1,264 = $5,056)							
Utilities and Service Systems								

EXHIBIT I

Bass Lake 10 Project

Biological Assessment

Madera County, CA

Prepared for

Paul Contreras
c/o J&S Surveying
PO Box 2292
Oakhurst, CA 93644

Prepared by

ESR, Inc.
P.O. Box 4086
Oakhurst, CA 93644
(559) 683-5335
esri@sti.net

July 2014

TABLE OF CONTENTS

Section **Page**

TABLES

FIGURES

PHOTOGRAPHS

SUMMARY OF FINDINGS AND CONCLUSIONS

It is our understanding that a Biological Assessment Report is needed to assess a proposed subdivision near Road 432 north of Bass Lake in Madera County (County). The site and project is described as APN 059-200-004 which will divide the approximately 9.93 acre parcel into 21 residential lots. The project site is located in the USGS Bass Lake 7.5 Minute quadrangle in Section 9, Township 7 South, Range 22 East, Mount Diablo Base and Meridian (MDB&M). This survey report is intended to be reviewed and used by Madera County as part of their lead agency role in completing the environmental documentation for the proposed project. Refer to Figure 1 – Bass Lake 10 Vicinity Map and Figure 2 – Bass Lake 10 Project Site Map for a graphic depiction of the vicinity and the site.

The site is currently extensively developed with storage buildings, sheds, fencing, and roads. It appears that the areas that are not occupied by buildings and amenities have been largely "brushed" under the permission of Madera County as a means to reduce fire loading in the area. It is estimated that less than 16% of the site retains any marginal native habitat as very little shrub habitat is remaining and the vegetative species have been appreciably modified. There are a few vestiges of oak and pine woodland but they also have been fragmented and isolated. In terms of biological integrity the site should be considered extremely low due to the anthropogenic influences from the site use, maintenance, and existing surrounding residential developments.

An approximately 712 foot section of an ephemeral drainage traverses the property trending from the northeast to the southwest but this drainage supports only a fairly narrow band (~25 feet) of non-impacted habitat. The watershed supporting the entire 1,400 feet of this ephemeral drainage only encompasses about 32 acres and is very small in terms stormwater capture and precipitation event flow generation. ESR, Inc. (ESR) assessed the swale topographically up gradient of the property and found only poorly defined, inconclusive indicators that would, in our opinion, meet the intended definition of a Water of the U.S. Once entering the property the swale begins to incise the soil and create a more defined bed and bank feature. The project proponent has indicated that this portion of the drainage would not impact any native habitat by the development, a 25 foot buffer would be placed on either side of the thalweg, and an open space deed restriction would be place on the buffered area.

Since the brushing activities have removed a considerable amount of the fuel loading materials (i.e. scrub, brush, litter, etc.) the topographically lower lying swale features

appear to have handled more storm event flow than under normal conditions since the overlying materials were not present to impede the flow. The increased volume resulted in minor scour and erosion in some areas on the site north of the existing culvert servicing the roadway to the Madera County Sheriff storage area.

South of the culvert a few of the ponderosa pines have been cut down but the habitat has not been as heavily brushed and the remaining foliage has functioned to reduce the velocity of the ephemeral stormwater. The drainage feature in this degraded oak/pine area is marginal and poorly defined with little to indicate a distinct bed and bank. This area, although somewhat wooded, is not a “true” riparian corridor. No scour or erosion is located in this area. Down gradient of the site no indications of additional silt or fill were observed.

The development of the residential units contiguous to approximately 60% of the site has manipulated the drainage around the units and associated amenities by constructing a variety of angular (90° in some areas) routing realignments utilizing culverts, ditches, cobble armoring, and ornamental landscaping directing the flow back toward the roadway. Prior to the development of the existing residential units the construction of the Road 423 also altered the alignment of the stormwater runoff using a ditch and culvert system leading to the lake. Currently, the surrounding area is a mixture of single family residential units, recreational facilities, and commercial developments.

ESR prepared a biological assessment of the project area based on a review of existing literature and reconnaissance level field surveys conducted during non-consecutive days between April 15, 2014 and July 7, 2014. However the bulk of the field survey was conducted April 24, 2014 through April 28, 2014, May 15, 2014 through May 19, 2014, June 18, 2014 through June 20, 2014 and July 3 through 7, 2014. The focus of this effort was the identification of sensitive biotic resources that might be adversely affected by the development of the project. Such resources included state and federally listed threatened and endangered species, state and federally listed species of concern, federal candidate species, California rare species, and California Native Plant Society (CNPS) listed species (hereafter referred to as “special status species”). In addition, biotic habitats protected by state or federal law, or otherwise considered sensitive according to the guidelines of California Environmental Quality Act (CEQA) were assessed and depicted on aerial photos.

As previously stated, the site has been highly disturbed and little natural habitat remains. The site has apparently undergone previous development efforts as there are numerous unpaved roads, flattened areas, and culverts located throughout the site. The site has

also been heavily “brushed” in recent times as evidenced by the lack of chaparral and scrub brush, the removal of selected trees and the obvious signs of tracked vehicles having worked the area. Information provided by Mr. Paul Contreras indicated that the site has been used by the County of Madera Sherriff Department for many years for storage of equipment and materials. It has been reported that the site was also previously developed as a portion of the fish hatchery that once was housed in the area. Roadways still present at the location are currently utilized by the County as well as other authorized and unauthorized parties. One unpaved roadway connects Road 423 to Road 474 across private and U.S. Forest Service (USFS) property.

The remaining biotic habitats identified within the project area include recently recovering disturbed grasslands (i.e., areas dominated by annual and perennial grasses and interspersed first-year forbs), Mixed pine/Blue oak woodlands (i.e., areas dominated by Ponderosa pine and Blue oak with interspersed Grey pines and Incense cedars). The site was almost devoid of chaparral however some smaller isolated areas of Ceanothus and Manzanita where found around the site near the northern boundary. The dominant habitat types of the project area are characterized as disturbed grassland, disturbed mixed chaparral, and disturbed Mixed pine/Blue oak woodlands. Native flora was somewhat represented but significantly reduced in the disturbed grassland, chaparral and woodland habitats due to the current state of use by various activities such as off road vehicles, improved and non-improved access road development to different areas of the parcels, wood gathering, residential/recreational usage, and the fuel load reduction activities. The function and value or the remaining habitat types (Mixed pine/Blue oak woodland) was also reduced due to the direct impacts from these activities.

No special status animal species or special status plant species were indicated by the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) as potentially occurring on the project site. The site is located within a one-mile radius of the listed species Leech's skyline diving beetle (*Hydroporus leechi*) at approximately 0.13 mile to southeast, Rawson's flaming trumpet (*Collomia rawsonii*) at approximately 0.61 mile to the north, and Foothill yellow-legged frog (*Rana boylii*) at approximately 0.75 mile to the east of the site.

Leech's Skyline diving beetle (*Hydroporus leechi*) was proposed for listing under the presumption that its distribution was limited to the San Francisco Bay area. Though its populations in that area have suffered from development, it now appears that the beetle is much more widespread, occurring throughout the western United States. A recommendation to drop the species from the U.S. Fish and Wildlife Service (USFWS)

proposed species list was prepared in 1989 (Hafernick, J.E., 1989). No habitat for the beetle exists on site so likelihood of use is exceeding low.

Rawson's flaming trumpet (*Collomia rawsonii*) is a species of flowering plant in the phlox family. This perennial wildflower is endemic to California, where it is known from only two counties: Mariposa and Madera. It grows in the woodland understory in the Sierra Nevada foothills and is listed as a 1B.2 (CNPS, 2014). Likelihood of use by the species is considered low since the mapped sighting is located in a different watershed than the project and the species was not observed during blooming period surveys.

Foothill yellow-legged frog (*Rana boylii)*, a California Species of Special Concern, frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. The frog is sometimes found in isolated pools, vegetated backwaters, and deep, shaded, spring-fed pools from sea level to 6,700 ft. (Nafis, 2013). No suitable habitat exists on site and the use of this site by the species is expected to be exceeding low.

Western pond turtles (*Emys marmorata*), a California Species of Special Concern, are found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, they prefer pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. They may enter brackish water and even seawater. Species sighting in CNDDB is more than 5 miles to southwest between Oakhurst and Coarsegold at southern approach to the base of the Deadwood Grade. No suitable habitat exists on site and the use of this site by the species is expected to be low.

The project area provides ample foraging and roosting habitat for various species or raptors such as American Kestrels, Red-tailed Hawks, Barn Owls, etc.; however, due to the current state of disturbance and continued use of the site by a variety of activities the potential as a raptor breeding or nesting site is considered low.

The general Bass Lake area has the potential to be foraging habitat for Bald eagles as a nesting location has been identified approximately 1.67 miles southeast of the site. Due to the disturbance regimes and lack of appropriate habitat, impacts on habitat value (i.e., importance, desirability, benefit, etc.) for special status species and sensitive biotic habitats is anticipated to be low.

The project site does not contain the preferred roosting habitat of open cave or cave-like structures for the Townsend big-eared bat (*Corynorhinus townsendii)* so potential secondary roosting site such as large hollow trees were individually inspected and no sign of use by the bat was observed. Use of the site by the species is considered low.

The site does not contain the preferred denning sites such as burrows, rocky outcrops, hollow logs, and stumps for the Sierra Nevada red fox (*Vulpes vulpes necator*) so other potential secondary denning sites (i.e. hollow or damaged trees) were individually inspected and no sign of use by the fox was observed. Use of the site by the species is considered low unless in transit through its range.

1.0 INTRODUCTION

1.1 Project Description

The proposed “Bass Lake 10” subdivision is located near Road 432 north of Bass Lake in Madera County (County). The site and project is described as APN 059-200-004 which will divide the approximately 9.93 acre parcel into 21 residential lots. The project site is located in the USGS Bass Lake 7.5 Minute quadrangle in Section 9, Township 7 South, Range 22 East, Mount Diablo Base and Meridian (MDB&M). This survey report is intended to be reviewed and used by Madera County as part of their lead agency role in completing the environmental documentation for the proposed project. Refer to Figure 1 – Bass Lake 10 Vicinity Map and Figure 2 – Bass Lake 10 Project Site Map for a graphic depiction of the vicinity and the site.

The site is currently extensively developed with storage buildings, sheds, fencing, and roads. It appears that the areas that are not occupied by buildings and amenities have been largely “brushed” under the permission of Madera County as a means to reduce fire fuel load in the area. It is estimated that less than 16% of the site retains any marginal native habitat as very little shrub habitat is remaining and the vegetative species have been appreciably modified. There are a few vestiges of oak and pine woodland but they also have been fragmented and isolated. In terms of biological integrity the site should be considered extremely low due to the anthropogenic influences from the site use, maintenance, and existing surrounding residential developments.

1.1.1 Biological Integrity

Biological integrity of a site is associated with the value or quality of the environment and its function relative to the original state, before human alterations. A commonly accepted definition for biological integrity is “the capability of supporting and maintaining a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region.” (Karr, 1993)

Biological integrity is built on the assumption that a decline in the values of an ecosystem’s functions are primarily caused by human activity or alterations. Thus, the more an environment and its original processes are altered, the less biological integrity it holds for the species occupying the geographical area.

1.2 Purpose of Assessment

A biological assessment is required in order to assess if sensitive biological resources will be adversely affected by the construction of the project area and to propose appropriate mitigation measures where project impacts will be significant or otherwise regulated by state and federal resource agencies. Sensitive biotic resources generally include the following:

- **Special Status Species** "Special Status Species" is a general term that refers to all taxa tracked by the CDFW California Natural Diversity Database, regardless of their legal or protection status. These taxa generally fall into one or more of the following categories:

    - Officially listed or proposed for listing under the State and/or Federal Endangered Species Acts.
    - State or Federal candidate for possible listing.
    - Taxa that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the CEQA Guidelines.
    - Taxa considered by the Department to be a "Species of Special Concern".
    - Taxa that are biologically rare; very restricted in distribution; declining throughout their range; or have a critical, vulnerable stage in their life cycle that warrants monitoring.
    - Populations in California that may be on the periphery of a taxon range but are threatened with extirpation in California.
    - Taxa closely associated with a habitat that is declining in California at an alarming rate e.g., wetlands, riparian, old growth forests, desert aquatic systems, native grasslands, vernal pools, etc.).
    - Taxa designated as a special status, sensitive, or declining species by other state or federal agencies, or a non-governmental organization

For most animal taxa, the CNDDB is interested in sightings that indicate the presence of a resident population; for many birds, however, the CNDDB tracks only nesting locations. It is not necessary to actually locate a nest to confirm breeding status. Any indication of breeding (territorial males, adults carrying nest material or food, the presence of newly fledged young, etc.) is acceptable evidence of nesting. For other taxa where only a certain part of a distribution range or life history is tracked, the area or life stage is indicated.

- **Sensitive Habitats.** Sensitive habitats may include the following:

    - native habitats of limited distribution (i.e. wetlands of various types, riparian habitat, native grasslands, etc.);
    - native habitats used by state or federally listed threatened or endangered species;
    - habitats supporting particularly high concentrations of native plants and animals;
    - habitat that is within the jurisdiction of one or more state and federal resource agencies (i.e. wetland, endangered species habitat, etc.).

- **Migratory Corridors of Native Fish and Wildlife.** Such corridors could include riparian habitats, ridge tops, spur ridges, etc. Some amphibians may make regular localized movements between breeding habitat and aestivation habitat through grasslands that are indistinguishable from adjacent grasslands that are not so used. Although this report focuses on the sensitive biotic resources of the project area, the broader environmental setting has been described. Thus, the various biotic habitats observed in the project area have been described and their component plants and animals listed in Table 1 – Bass Lake 10 Plant List, March – July 2014 and Table 2 – Bass Lake 10 Fauna List July 2014. This has been done in order to provide context for the discussion more specifically related to special status species and other sensitive habitats.

1.3 Studies Required

Studies in support of this biological assessment have included the following:

- **Literature Review and Database Search.** A database and literature review was conducted to include some, or all, of the following: USFWS Federal Endangered and Threatened Species list (July, 2014), CNDDB (CDFW, July 2014), California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (CNPS, July 2014), other technical studies recently completed for other projects in the area, current listings for special status species (CDFW, 2014), U.S. Geologic Service (USGS) topographic maps, Natural Resource Conservation Service (NRCS) soil maps, National Wetland Inventory Maps, etc.

- **Floristic Survey.** ESR, Inc. conducted driving and walking surveys of the project area, during which the biotic habitats were noted, and vascular plants recorded.

Particular attention was given to habitats of the project site, which would be suitable, or potentially suitable, for special status plant species (state or federally listed species, candidate species, and species with CNPS listing status).

- **Wildlife Survey.** ESR, Inc. conducted driving and walking surveys of the project area, during which terrestrial vertebrates and their sign were recorded. Particular attention was given to the habitats of the project site, which would be suitable, or potentially suitable, for special status animal species (state and federally listed species, species proposed for such listing, or candidate species).

1.4 Survey Dates and Personnel

Messrs. William Stolp and Scott Larson, senior biologists with ESR, Inc., in Oakhurst, California conducted reconnaissance level field surveys based on the results of the literature review during non-consecutive days between April 15, 2014 and July 7, 2014. However the bulk of the field survey was conducted April 24, 2014 through April 28, 2014, May 15, 2014 through May 19, 2014, June 18, 2014 through June 20, 2014 and July 3 through 7, 2014.

1.5 Problems Encountered and Limitations that May Influence Results

No problems were encountered during the field survey (i.e. bad weather, access restrictions, etc.) that would bias the conclusions of this report. Although the timing of the study did permit specific surveys for special status plants, appropriate habitat for any of the species was not observed within the project area. One area had a thick growth of chaparral and poison oak along the drainage course and therefore was not traversed through; however, the habitat in the immediate area could be observed and assessed without encountering the patch of poison oak or disturbance of the chaparral.

Upon each visit, the biologists collected data throughout the project site by conducting pedestrian surveys utilizing high quality optics coupled with topographical maps and aerial photographs of the location. All plant and wildlife species encountered were positively identified, features were mapped, vegetative communities were categorized, and the general habitat quality was evaluated for the presence of rare species. It should be noted that the acreages of the habitat types encountered and depicted on the figures are, in general, approximate estimates due to the overlapping characteristics of the oak, chaparral, riparian, and grassland settings.

During the course of the surveying certain limitations can be encountered that can affect the accuracy/precision of the acquired Global Positioning System and Geographic Information System data. Due to the use of an approximate property and project boundary supplied by the client, the lack of visually apparent survey markers along some of those boundaries and the level of precision effort suitable for this portion of the assessment, the use of dead reckoning and line of sight methods were used to evaluate where the property line or project boundary exists in some areas.

Furthermore, it has been the experience of ESR that the level of precision is affected by several factors inherent with the use of the GPS hardware. Although, ESR uses sub-meter accurate instruments for mapping certain locations, there are various situations that can affect the results such as PDOP (Positional Dilution of Precision) which is a consequence of the number and location of the satellites used to make the readings. ESR has also experienced accuracy fluctuations based on the time of day the readings were acquired, the ground cover affects, the changes in elevations, the differences due to conversion aspects in the geographical coordinate systems and the coorelation stations (CORS) used for post-processing the data for use in the GIS mapping programs. It should be noted that during surveys reliant on GPS and GIS that ESR strives to acquire as accurate of data as possible in the situation presented. However, there may be minor discrepancies in GPS data collected in the field when other GIS data is overlain.

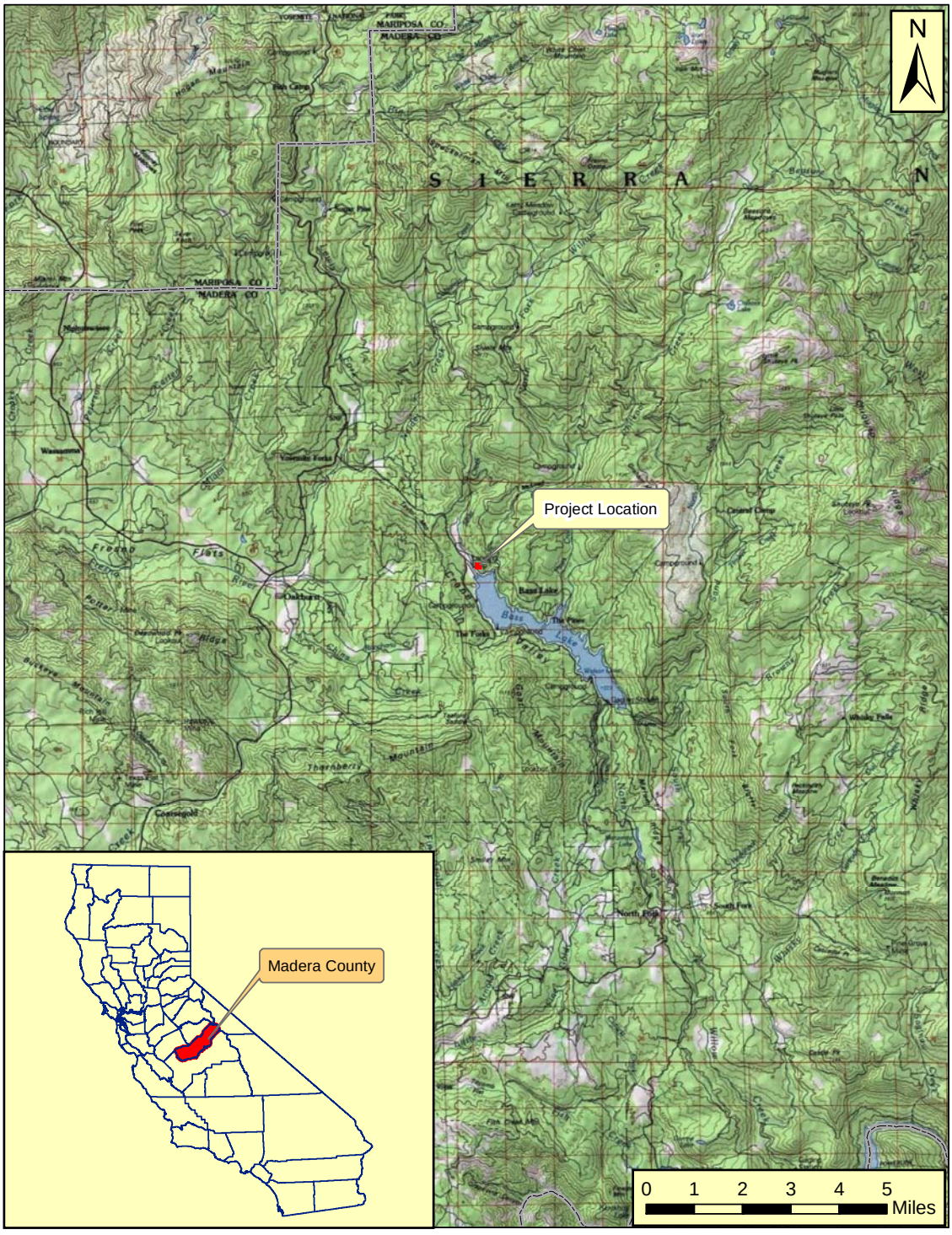


Figure 1 – Bass Lake 10 Vicinity Map

Figure 2 – Bass Lake 10 Project Site Map

2.0 REGULATORY BACKGROUND

2.1 Federal Endangered Species Act

The Federal Endangered Species Act (ESA) prohibits the "take" of federally-listed endangered or threatened wildlife species. "Take" is defined to include harassing, harming (including significantly modifying or degrading habitat), pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (16 USC 1532, 50 CFR 17.3). Actions that result in take can result in civil or criminal penalties. The federal ESA and Section 404 guidelines prohibit the issuance of wetland permits for projects that would jeopardize the existence of threatened or endangered species. The US Army Corps of Engineers (ACOE or Corps) must consult with the USFWS, and possibly the National Marine Fisheries Service (NMFS) when threatened or endangered species may be affected by the proposed project to determine whether issuance of a Section 404 permit would jeopardize the continued existence species. In the context of the project site, the federal ESA would be triggered if development resulted in take of a threatened or endangered species or if issuance of a Section 404 permit or other federal agency action could adversely affect or jeopardize a threatened or endangered species.

2.2 California Endangered Act

The state ESA is similar to the federal ESA but pertains to state-listed endangered and threatened species. It required state agencies to consult with the California Department of Fish and Game when preparing California Environmental Quality Act documents to ensure that the state lead agency actions do not jeopardize the existence of listed species. It directs agencies to consult with CDFW on projects or actions that could affect listed species, directs CDFW to determine whether jeopardy would occur, and allows CDFW to identify "reasonable and prudent alternatives" to the project consistent with conserving the species. Agencies can approve a project that affects a listed species if they determine that there are "overriding considerations"; however, the agencies are prohibited from approving projects that would result in the extinction of a listed species. The state ESA prohibits the taking of state-listed endangered or threatened plant and wildlife species. CDFW exercises authority over mitigation projects involving state-listed species, including those resulting from CEQA mitigation requirements. CDFW may authorize "take" if an approved habitat management plan or management agreement that avoids or compensates for possible jeopardy is implemented. CDFW required preparation of mitigation plans in accordance with published guidelines.

2.3 California Environmental Quality Act

CEQA applies to public agencies in California with discretionary authority over project approvals and permits. CEQA requires that impacts of proposed projects be assessed before the project is approved. Projects with significant impacts on the environment cannot be approved without adequate mitigation or compensation, unless a finding of overriding consideration is made. Discretionary approval from public agencies may require avoidance measures or compensatory mitigation. CEQA also provides that less than significant impacts of an individual project can be treated as significant if they contribute to significant cumulative impacts on the environment.

2.4 California Department of Fish and Game Streambed Alteration Agreement

Under Sections 1600 - 1616 of the California Fish and Game Code, CDFW is responsible for protecting and conserving the state's fish and wildlife resources. Section 1600 and 1603 of the code describes CDFW's responsibilities and Sections 1602 and 1603 identify the procedures and requirements that must be followed to obtain an agreement to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake." These agreements may include specific requirements related to construction techniques and remedial and compensatory measures to mitigate adverse impacts. CDFW also may require long-term monitoring as part of an agreement to assess the effectiveness of the proposed mitigation.

2.5 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, implements domestically a series of treaties (on behalf of Canada) between the United States and Great Britain, Mexico, Japan, and the former USSR. The MBTA provides for international migratory bird protection, and authorizes the Secretary of the Interior to regulate the "taking" of migratory birds. Specifically, the MBTA states that it shall be unlawful, except as permitted by regulations, to "at any time, by any means, or in any manner, to pursue, take, kill, posses, sale, purchase, ship, transport, carry, or export, at any time, or in any manner, any migratory bird, or any part, nest, or egg of any such bird" (16 USC 703). The current list of species protected by the MBTA can be located in Title 50, CFR

Section 10.13. The Bass Lake USGS 7-minute quadrangle was used in the search for special status species potentially occurring within the project area or in the project area vicinity.

2.6 Birds of Prey

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, 1992) which states that it is "unlawful to take, possess, or destroy the nest or eggs of any such bird in the order Falconiformes or Strigiformes (bird of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

2.7 Section 404 of the Clean Water Act

The US Army Corps of Engineers and the Environmental Protection Agency (EPA) regulate the discharge of dredged and fill material into "Waters of the United States" under Section 404 of the Clean Water Act (CWA). ACOE jurisdiction over non-tidal "Waters of the United States" extends to the "ordinary high water mark," provided the jurisdiction is not extended by the presence of "wetlands" (33 CFR Part 328, Section 328.4). The discharge of dredged or fill material into Waters of the United States at the project site requires an individual Section 404 permit.

As discussed above, ACOE regulatory jurisdiction under Section 404 is founded on a connection between the water body in question and interstate commerce. This connection may be direct; through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the ACOE regulations. On January 9, 2001, the Supreme Court issued a decision in Solid Waste Agency of Northern Cook County [SWANCC] v. U.S. Army Corps of Engineers concerning Clean Water Act jurisdiction over isolated waters. This decision substantially affected the extent of Corps regulatory authority over "non-navigable, isolated, intrastate waters," and particularly, the use of indirect indicators of interstate commerce (e.g., use by migratory birds that cross state lines) as a basis for jurisdiction.

The preamble to Corps regulations in the Preamble Section 328.3 – Definitions, states that the Corps does not generally consider the following waters to be waters of the U.S. The Corps does, however, reserve the right to regulate these waters on a case by case basis.

- Non-tidal drainage and irrigation ditches excavated on dry land,
- Artificially irrigated areas that would revert to upland if the irrigation ceased,
- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing,
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons,
- Water filled depressions created in dry land incidental to construction activity and pits excavated in dry land for purposes of obtaining fill, sand or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the U.S.

2.7.1 SWANCC & Rapanos Isolated Waters

As discussed above, ACOE regulatory jurisdiction under Section 404 is founded on a connection between the water body in question and interstate commerce. This connection may be direct; through a tributary system linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the ACOE regulations. On January 9, 2001, the Supreme Court issued a decision in Solid Waste Agency of Northern Cook County [SWANCC] v. U.S. Army Corps of Engineers concerning Clean Water Act jurisdiction over isolated waters. This decision substantially affected the extent of Corps regulatory authority over "non-navigable, isolated, intrastate waters," and particularly, the use of indirect indicators of interstate commerce (e.g., use by migratory birds that cross state lines) as a basis for jurisdiction.

Furthermore, the recent U.S. Supreme Court's decision in the Rapanos v. United States & Carabell v. United States (herein simply referred to as "Rapanos") which addresses the jurisdiction over waters of the United States under the Clean Water Act and the subsequent guidance memorandum prepared by the ACOE, better define the role of the ACOE is ascertaining whether a feature is to be considered within the jurisdiction of the ACOE. A summary of the key points from the memorandum is presented as follows:

The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters
- Wetlands adjacent to traditional navigable waters
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g. typically three months)
- Wetlands that directly abut such tributaries

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with traditional navigable water:

- Non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow)
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The agencies will apply the significant nexus standards as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters
- Significant nexus includes consideration of hydrologic and ecologic factors

2.7.2 Arid West Regional Supplement

The arid west regional supplement is part of a nationwide effort to address regional wetland characteristics and improve the accuracy and efficiency of wetland delineation procedures. Regional differences in climate, geology, soils, hydrology, plant and animal

communities and other factors are important to the identification and functioning of wetlands. The regional supplement is designed for use with the current version of the Corps manual (Environmental Laboratory 1987) and all subsequent versions. Where differences in the two documents occur, the regional supplement takes precedence over the Corps Manual for application in the arid west region. The arid west supplement was also used in assessing the wetlands located at the Catheys Valley Project site.

2.7.3 Man-Made Waters

The preamble to ACOE regulations (Preamble Section 328.3 Definitions) states that the ACOE does not generally consider the following waters to be jurisdictional waters. The Corps does, however, reserve the right to regulate these waters on a case by case basis.

- Non-tidal drainage and irrigation ditches excavated on dry land,
- Artificially irrigated areas that would revert to upland if the irrigation ceased,
- Artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing,
- Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons,
- Water filled depressions created in dry land incidental to construction activity and pits excavated in dry land for purposes of obtaining fill, sand or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the U.S.

2.8 Section 401 of the Clean Water Act

In association with obtaining a Section 404 permit, a Water Quality Certification must be obtained from the Regional Water Quality Control Board. Section 401 of the Clean Water Act requires that the project proponent for any project that affects Waters of the United States must request a 401 Water Quality Certification, which must be issued before the start of project construction. To obtain approval of the application for Water Quality Certification, projects must follow the Corps' 404(b)(1) Guidelines which specify avoidance of wetland impacts and minimization and mitigation of impacts to any affected wetlands. However since a 404 permit is not anticipated to be required for the project the associated 401 certification will also not be required.

2.9 Madera County General Plan

The Madera County General Plan (General Plan) (Madera County Planning Department 1995) identifies specific policies regarding biological resources. While this assessment analyzes the project's consistency with the Madera County General Plan pursuant to CEQA Section 15125(d), the Madera County Board of Supervisors would ultimately make the determination of the project's consistency with this General Plan. The Madera County General Plan has adopted an Open Space Element that recognizes the value of maintaining biological resources. In general, the Madera County Open Space Element regarding biological resources is consistent with, and is superseded by federal and state ESA's, CEQA, and Section 1603 of the Fish and Game Code (described above). The project site is not located within a designated Natural Resource Area, and does not encompass any Key (Rare) Vegetative Habitat, Key Wildlife Habitat or Significant Wildlife Habitat. Additionally, the project site is not designated as, and is not located near, deer migratory routes, wintering areas, or fawning areas.

3.0 Regional Setting

Madera County (County) is located in Central California along the western slope of the Sierra Nevada mountain range.

Madera County is located in the center of California, in the heart of the Central Valley and the Central Sierras. It is one of the fastest growing counties in California. Fresno County borders Madera County on the south, Mariposa and Merced counties borders Madera County on the north, and Mono County borders Madera County to the east.

It is located approximately 20 miles from the Fresno Metropolitan Area, 166 miles from the Bay Area, 240 miles from Los Angeles, 88 miles from Yosemite, 160 miles from Pacific beaches. Refer to Figure 1 for graphic depiction of the Project Vicinity.

3.1 Geographic Area

Madera County consists of 1,374,160 acres or approximately 2,147 square miles and is located at the exact (surveyed) geographical center of the State of California. The county stretches from the rich San Joaquin Valley to the crest of the Sierra Nevada, the highest mountains in the contiguous United States. Bordered on the north by the Chowchilla River and on the south by the San Joaquin River, the County includes some of the richest agricultural land in the nation.

The County is characterized by rolling foothills to the east were the project is located that rise from approximately 300 feet in elevation to mountain peaks at 8,795 feet in elevation at the northeast. The area of the County where the project is located is in the Northern Sierra Nevada Foothills sub-region of the California Floristic Province. This floristic sub-region is characterized by mixed native and non-native grasslands, Ceanothus chaparral and Mixed pine/Blue oak woodlands.

3.2 Local Setting

The Bass Lake 10 (project) site is located near Road 432 north of Bass Lake in Madera County (County). The site and project is described as APN 059-200-004 which will divide the approximately 9.93 acre parcel into 21 residential lots. The project site is located in the USGS Bass Lake 7.5 Minute quadrangle in Section 9, Township 7 South, Range 22 East, Mount Diablo Base and Meridian. This survey report is intended to be reviewed and used by Madera County as part of their lead agency role in completing the

environmental documentation for the proposed project. Refer to Figure 1 – Bass Lake 10 Vicinity Map and Figure 2 – Bass Lake 10 Project Site Map for a graphic depiction of the vicinity and the site.

The site is currently extensively developed with storage buildings, sheds, fencing, and roads. It appears that the areas that are not occupied by buildings and amenities have been largely "brushed" under the permission of Madera County as a means to reduce fire loading in the area. It is estimated that approximately 16% of the site retains any marginal native habitat as very little shrub habitat is remaining and the vegetative species have been appreciably modified. There are a few vestiges of oak and pine woodland but they also have been fragmented and isolated. In terms of biological integrity the site should be considered extremely low due to the anthropogenic influences from the site use, maintenance, and existing surrounding residential developments.

The project site is located within the Northern Sierra Nevada Foothills sub-region of the California Floristic Province (Hickman 1993). This floristic sub-region corresponds to the foothill area of the County mentioned above, and is characterized by highly disturbed annual grassland and remnant Mixed pine/Blue oak woodland. The approximately 9.93 acre project site currently is modified open space with portions showing evidence of past development as evidenced by numerous unpaved roads, paths, access points, and mechanized vehicle trails. The site is not fenced and is accessible to a variety of authorized and unauthorized users. The project site is characterized by rolling hills that are steeper along the portions of the project site that are incised by the vegetated drainage that traverses the location in a northeast to southwest direction. Based on the USGS Bass Lake 7.5-minute quadrangle, the topographic contours are at 40-foot intervals. The parcel corresponding to Assessor Parcel Number 059-200-004 ranges from approximately 3,490 feet in the northeastern corner of the property to 3,390 feet near the southwestern corner of the project site across Road 432.

4.0 VEGETATIVE COMMUNITIES

A community is an assemblage of populations of plants, animals, bacteria, and fungi that live in an environment and interact with one another, forming a distinctive living system with its own composition, structure, environmental relationships, development, and functions (Whittaker 1975). Vegetated communities are illustrated in Figure 3 – Bass Lake 10 Habitat Map. Refer to Photographs 1 – 18 for a visual overview of the current conditions of the habitat at the project location.

4.1 Disturbed Annual Grassland/Mixed Chaparral

As previously stated the site has undergone extensive fuel load reduction clearing to reduce fire hazards for the location and surrounding residential units. It is surmised from historical aerial photographs that the majority of the disturbed area was at one time comprised of annual grasslands and mixed chaparral. The brushing activities combined with the existing developed uses of the site have left approximately 16% of the site with marginal native habitat. It should be noted that the grasslands have a propensity to overlap in the Blue oak/Mixed pine areas since grasses tend to grow up to the base of the trees in areas. The same is somewhat true with chaparral; however, the tree and chaparral mixture is typically comprised of a variable mosaic of brush, trees and grassland areas. The trees acreages used in the following section are based on aerial photography approximation of tree canopy areas and therefore would duplicate some of the disturbed annual grassland/mixed chaparral areas calculations.

The annual grasslands and mixed chaparral areas are highly disturbed due to mechanical tracked vehicle usage to brush the area as a precaution to minimize the fire hazard of the area. The disturbed annual grasslands and mixed chaparral at the site account for approximately 3.33 acres of the 9.93 acre project site. The site has only about 0.40 acres of vestigial native chaparral left in place following the brushing activities. Additionally existing roadway and County equipment storage areas have also diminished the native vegetation and account for approximately 0.79 acres and 0.51 acres of the 9.93 acre site, respectively.

The primarily denuded grassland/chaparral areas were previously located on the slopes across the majority of the project site, and as an understory in the Mixed pine/Blue oak woodlands scattered throughout the project site. Non-native annual grasses are scattered in various areas around the site as natural rehabilitation including volunteer species and pioneering species reestablish now that the area has been opened up from

the brushing. Characteristic non-native grasses observed include soft chess (*Bromus hordeaceus*), wild oat (*Avena fatua*), and ripgut brome (*Bromus diandrus*). Tarweed (*Holocarpha heermanii*) and vinegar weed (*Trichostema lanceolatum*) are common forbs in the annual grasslands of the project site.

Intact annual grasslands and chaparral provide breeding and foraging habitat for a variety of bird species. The proximity of the isolated Mixed pine/Blue oak trees scattered throughout the annual grasslands in addition to the Mixed pine/Blue oak woodland on the site would enhance the value of the annual grasslands by providing foraging habitat for those species that nest in wooded communities; however, the level of disturbance to the site would likely minimize the use of the site by those species.

Red-tailed hawk (*Buteo jamaicensis*), and western meadowlark (*Sturnella neglecta*) are among the wildlife species observed in the general area during the field surveys but no nesting was observed. Typically, annual grassland and chaparral provide habitat for many mammal species, particularly small rodents and their larger predators. The following mammals or their signs (i.e., scat, tracks, etc.) were observed in the general area: black-tailed deer (*Odocoileus hemionus)*, black-tailed hare (*Lepus californicus*), and coyote (*Canis latrans*). The site was not observed to have obvious communities of gopher or ground squirrel holes or mounds although some may be present in some of the remaining underbrush. Annual grasslands and chaparral also provide habitat for several reptiles, including gopher snake (*Pituophis melanoleucus*), common garter snake (*Thamnophis sirtalis*), western rattlesnake (*Crotalus viridis*), and western fence lizard (*Sceloporus occidentalis*). A common king snake (*Lampropeltis getula)*, Northern alligator lizard (*Elargaria coerulea*), and western fence lizard (*Sceloporus occidentalis*) have been observed in the general area of the site.

4.2 Mixed Pine/Blue Oak Woodland

Intact Mixed pine/Blue oak woodland habitat totals approximately 1.61 acres of the 9.93 acre site is most concentrated near the southern and southeastern portions of the project site. Disturbed, isolated, and fragmented woodland patches and individual trees totaling approximately 3.29 acres occur scattered around the 9.93 acre site. The intact woodlands do not possess well defined riparian characteristics due primarily to the infrequent stormwater flows through the site; however, these areas are typical of wooded slopes in the general area.

For the purpose of this study, the Mixed pine/Blue oak woodland was characterized by stands of Ponderosa pines, Grey pines, and Blue oaks by canopy cover based on the

aerial photograph of the site. It should be noted that since the site has been routinely brushed and wood gathering has taken place over the years that the acreage calculation should be used as an approximation of the coverage on the site.

Mixed pine/Blue oak woodland is a foothill plant community characterized by relatively open stands of Ponderosa pine (*Pinus ponderosae*), Grey pine (*Pinus sabiana*) and Blue oak (*Quercus douglasii*) with a grassy understory. At lower and western elevations in the study site, Mixed pine/Blue oak woodland intergrades with annual grassland communities vary in density, and their canopies are dominated by Mixed pine/Blue oak with scattered buckeye (*Aesculus californica*). The shrub layer is sparse, fragmented and when present consists primarily of buckbrush (*Ceanothus cuneatus*) and poison oak (*Toxicodendron diversilobum*). The understory of Mixed pine/Blue oak woodland is dominated by many of the same species as described above for annual grassland.

Characteristic forbs found in Mixed pine/Blue oak woodland include various wildflowers such as brodiaeias (*Brodiaea* spp.), clovers (*Trifolium* spp.), and popcorn flowers (*Plagiobothrys* spp.). Mixed pine/Blue oak woodland can provide nesting, foraging, and resting habitat for many species, although none were observed during the surveys. The acorn crops from oak trees are important food sources for a variety of birds and mammals. Snags (standing dead trees) provide nesting opportunities for cavity-nesting birds such as acorn woodpecker (*Melanerpes formicivorus*) and northern flicker (*Colaptes auratus*); however, neither of these species was observed on site. For some species, all of their life requirements are met in the Mixed pine/Blue oak woodland; other species nest in the wooded habitat and forage in the annual grasslands. Species observed in Mixed pine/Blue oak woodlands near the site but not on the site during field surveys included: Red-tailed hawk (*Buteo jamaicensis*), western scrub-jay (*Aphelocoma californica*), yellow-rumped warbler (*Dendroica coronata*), mourning dove (*Zenaida macroura*), and dark-eyed junco (*Junco hyemalis*).

4.3 Sensitive Natural Communities

A sensitive community has particularly high ecological value or functions. Sensitive communities are considered important because their degradation or destruction could threaten populations of dependent plant and wildlife species and significantly reduce the regional distribution and viability of the community. As the number and extent of sensitive communities continue to diminish, the endangerment status of dependent special-status (i.e., rare, threatened, or endangered) species could become more precarious, and populations of currently stable species (i.e., non-special-status species) could become rare. Loss of sensitive communities can also eliminate or reduce

important ecosystem functions, such as water filtration by wetlands and bank stabilization by riparian forests. None of the swale areas would likely met the criteria to be considered jurisdictional waters of the United States. The swales and ephemeral drainage communities were identified in the biological assessment conducted for the project site by ESR, Inc. but should be considered isolated drainages since they end just beyond the property boundary and are intercepted and manipulated by the roadway and residential developments down gradient of the subject property.

4.3.1 Swales

Swales are broad, shallow, occasionally wet areas that primarily convey water during and shortly after rain events. Surface runoff collects in swales, wetting and saturating the soil for short periods. Swales are typically vegetated and have a minimally defined channel but lack defined bed and bank. The ACOE typically do not consider these waters of the U.S. The swales present at the site have been temporarily modified by the brushing activities and exhibited minor scour due to the removal of the vegetation. These swales when vegetated would not typically exhibit bed and bank features or flow characteristics causing incising. In an effort to assess the swales in a more natural state, ESR assessed similar swales up gradient and down gradient of the site, and in the general vicinity. Our conclusion was that where the native ground cover exists the swales would not scour or incise. Additionally, no vernal pools or wetlands were located on the site.

4.3.2 Ephemeral Drainage

Typically, intermittent drainages and watercourses have well defined bed and bank features and are primarily derived from erosion caused by frequent, high velocity flows of stormwater. During the survey an ephemeral drainage was identified at the project site. According to the ACOE Rapanos decision, discussed in section 2.7.1, these types of features are not typically considered jurisdictional. This feature enters from the northeast and exits along the southern boundary of the site onto adjacent residential properties. It is evident that this feature conveys surface water during and shortly after rainfall events, and is dry for the remainder of the year. The watershed that collects this stormwater runoff is very small at approximately 32.45 acres. Refer to Figure 4 - Bass Lake 10 Watershed Map for a graphic depiction of the watershed.

An approximately 712 foot section of an ephemeral drainage traverses the property trending from the northeast to the southwest but this drainage supports only a fairly narrow band (~25 feet) of non-impacted habitat. The watershed supporting the entire

1,400 feet of this ephemeral drainage only encompasses about 32.45 acres and is very small in terms stormwater capture and precipitation event flow generation. ESR assessed the swale topographically up gradient of the property and found only poorly defined, inconclusive indicators that would, in our opinion, meet the intended definition of a Water of the U.S. Once entering the property the swale begins to incise the soil and create a more defined bed and bank feature. The project proponent has indicated that this portion of the drainage would not impact any native habitat by the development, a 25 foot buffer would be placed on either side of the thalweg, and an open space deed restriction would be place on the buffered area.

Since the brushing activities have removed a considerable amount of the fuel loading materials (i.e. scrub, brush, litter, etc.) the topographically lower lying swale features appear to have handled more storm event flow than under normal conditions since the overlying materials were not present to impede the flow. The increased volume resulted in minor scour and erosion in some areas on the site north of the existing culvert servicing the roadway to the Madera County Sheriff storage area.

South of the culvert a few of the ponderosa pines have been cut down but the habitat has not been as heavily brushed and the remaining foliage has functioned to reduce the velocity of the ephemeral stormwater. The drainage feature in this degraded oak/pine area is marginal and poorly defined with little to indicate a distinct bed and bank. This area, although somewhat wooded, is not a “true” riparian corridor. No scour or erosion is located in this area. Down gradient of the site no indications of additional silt or fill were observed.

The development of the residential units contiguous to approximately 60% of the site has manipulated the drainage around the units and associated amenities by constructing a variety of angular (90° in some areas) routing realignments utilizing culverts, ditches, cobble armoring, and ornamental landscaping directing the flow back toward the roadway. Prior to the development of the existing residential units the construction of the Road 423 also altered the alignment of the stormwater runoff using a ditch and culvert system leading to the lake. Currently, the surrounding area is a mixture of single family residential units, recreational facilities, and commercial developments.

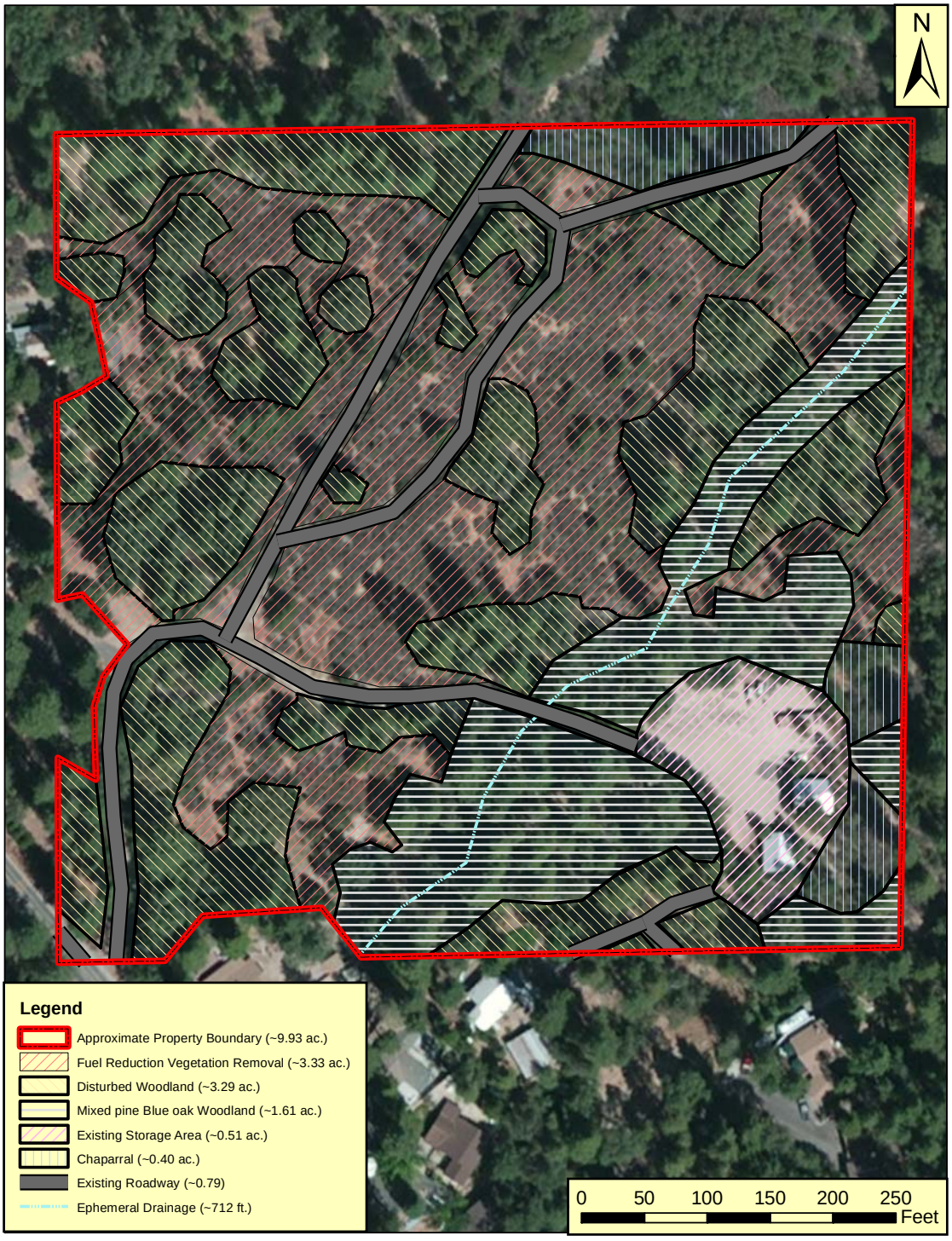


Figure 3 – Bass Lake 10 Habitat Map

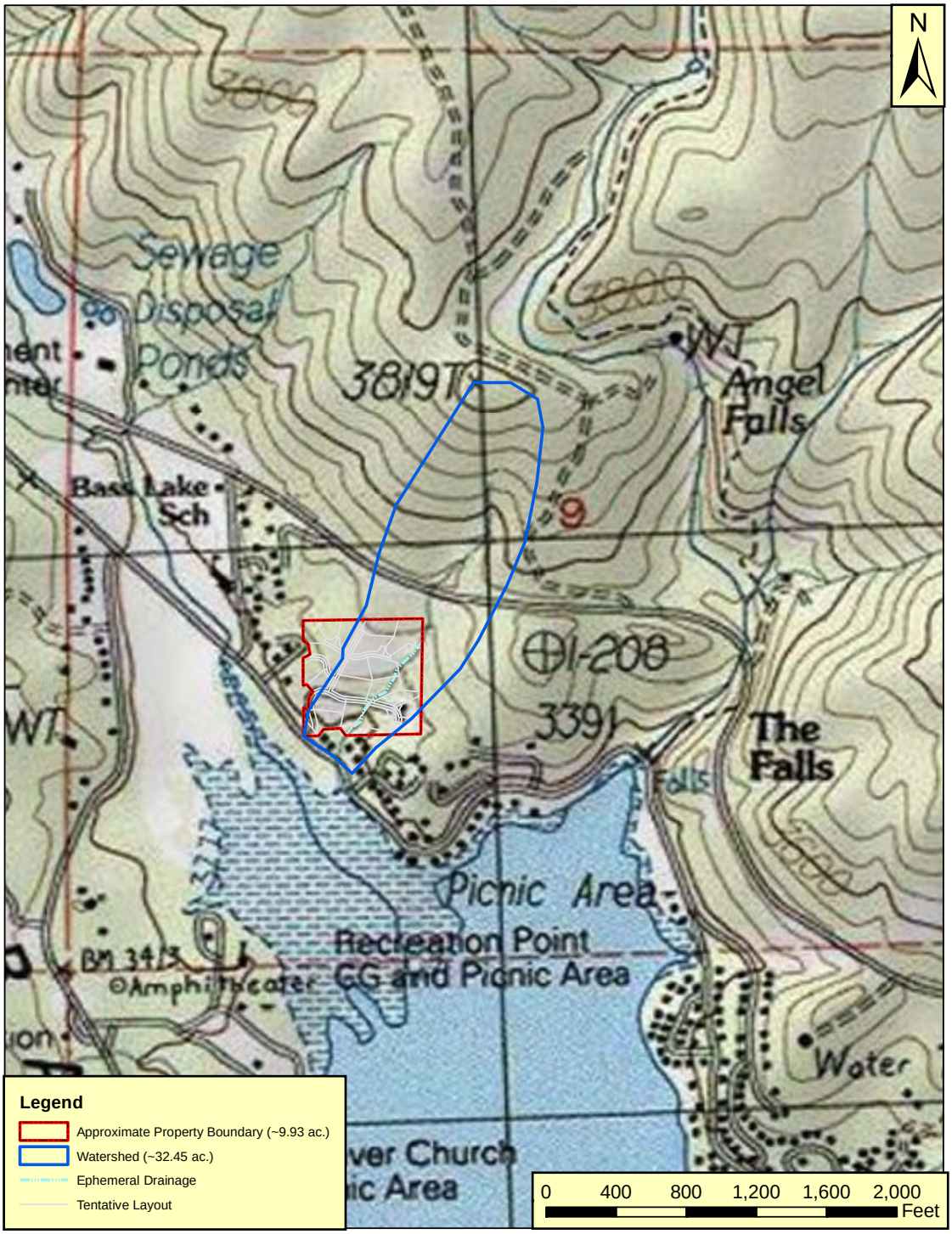


Figure 4 - Bass Lake 10 Watershed Map

Photograph 1 - Existing Roadway

Photograph 2 - Existing Roadway

Photograph 3 - Existing Roadway

Photograph 4 - Disturbed Grassland/Chaparral

Photograph 5 - Disturbed Mixed Pine Woodland

Photograph 6 - Disturbed Mixed Pine/Blue Oak Woodland

Photograph 7 - Disturbed Mixed Pine/Blue Oak Woodland

Photograph 8 - Disturbed Mixed Pine/Blue Oak Woodland

Photograph 9- Disturbed Mixed Pine/Blue Oak Woodland

Photograph 10 - Existing 30" CMP Culvert Inlet

Photograph 11 - Existing 30" Culvert Outlet

Photograph 12 - Existing 30" Culvert Down Gradient

Photograph 13 - Narrow Vegetation Band between Disturbed Area and Storage Area

Photograph 14 - Narrow Vegetation Band between Disturbed Area and Storage Area

Photograph 15 - Vegetated Swale

Photograph 16 - Vegetated Swale

Photograph 17 - Ephemeral Drainage

Photograph 18 - Ephemeral Drainage

5.0 SPECIAL-STATUS SPECIES

The following discussion describes the plant and wildlife species that have been afforded special recognition by federal, state, or local resource agencies or organizations. Special-status species are of relatively limited distribution and may require specialized habitat conditions. Special status species are defined as species that are:

- legally protected under the California and Federal Endangered Species Acts or under other regulations;
- considered sufficiently rare by the scientific community to qualify for such listing; or,
- considered sensitive because they are unique, declining regionally or locally, or at the extent of their natural range.

A review of the California Department of Fish and Game's Natural Diversity Database (CNDDB), California Native Plant Society, and the Sacramento Fish & Wildlife office for Endangered and Threatened Species for species that occur in or may be affected by projects in the Bass Lake U.S. Geological Survey 7 ½ minute quadrangles did not reveal any known occurrences of special-status plant or wildlife species from the project site.

In addition, reconnaissance level surveys have been performed by ESR for the project proponent during the appropriate seasons for special status plant and wildlife species. Special-status species listed on the Bass Lake U.S. Geological Survey 7 ½ minute quadrangle and the other surrounding eight quadrangles consisting of North Fork, O'neals, Horsecamp Mountain, Stumpfield Mountain, Knowles, Ahwahnee, White Chief Mountain, and Fish Camp were evaluated for use of the site by the ESR biologists.

All 46 species that were originally considered in this analysis were excluded from the consideration for usage of the site due to the project site lacking suitable habitat; the project site is out of their known range; they were not detected during site surveys; or they were otherwise considered unlikely to occur at the project site based on the disturbed or altered habitats present at the site or the confirmed presence of multiple predatory species occurring in the required habitat for the species to exist. The only species that may use the site as forging habitat is the Bald eagle (*Haliaeetus leucocephalus*) which is known to have a nesting site approximately 1.67 miles to the southeast along the shoreline of Bass Lake. The development of the site would not likely interfere with the any life cycle phases of the Bald eagle given the existing level of activity that the individual species have acclimated to around the lake.

5.1 Special-Status Plant Species

The CNDDB and CNPS search identified 17 species within the nine quadrangle search. Although, the database search did not show any records of any special-status plant species occurring at the project site, one special-status plant species Rawsons flaming trumpet (*Collomia rawsoniana)* was listed approximately 0.61 miles from the property to the north. This species was not found on site during the proper blooming period surveys and is not like to occur on site due to the lack of suitable habitat. The listing for this species is not located in the project site watershed. To date, surveys for other 16 special-status plant species have been performed for the species during the "prime" identification periods. None of the listed species were found or identified during the site visits due in part to the project site lacking suitable habitat; the project site is out of the species known range; or they were otherwise considered unlikely to occur at the project site based on the habitats present at the site. A complete list of the plants observed on the site is included as Table 1 – Bass Lake 10 Plant List, March – July 2014. The database review of special status plant species is included as Table 3 - USFWS Species, Table 4 - CNDDB Species, and Table 5 - CNPS Species.

5.2 Special-Status Wildlife Species

Twenty-eight special-status wildlife species and were listed within the nine quadrangle search. All of the species have a low potential for occurring within the project site because the site lacks suitable habitat; the project site is out of their known range; they were not detected during detailed site surveys; or they were otherwise considered unlikely to occur at the project site based on the habitats present at the site or the confirmed presence of multiple predatory species occurring in the required habitat for the species to exist.

Leech's Skyline diving beetle (*Hydroporus leechi*) was proposed for listing under the presumption that its distribution was limited to the San Francisco Bay area. Though its populations in that area have suffered from development, it now appears that the beetle is much more widespread, occurring throughout the western United States. A recommendation to drop the species from the U.S. Fish and Wildlife Service (USFWS) proposed species list was prepared in 1989 (Hafernick, J.E., 1989). No habitat for the beetle exists on site so likelihood of use is exceeding low.

Foothill yellow-legged frog (*Rana boylii)*, a California Species of Special Concern, frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. The frog is sometimes found in isolated pools,

vegetated backwaters, and deep, shaded, spring-fed pools from sea level to 6,700 ft. (Nafis, 2013). No suitable habitat exists on site and the use of this site by the species is expected to be exceeding low.

The project site does not contain the preferred roosting habitat of open cave or cave-like structures for the Townsend big-eared bat (*Corynorhinus townsendii)* so potential secondary roosting site such as large hollow trees were individually inspected and no sign of use by the bat was observed. Use of the site by the species is considered low.

The site does not contain the preferred denning sites such as burrows, rocky outcrops, hollow logs, and stumps for the Sierra Nevada red fox (*Vulpes vulpes necator*) so other potential secondary denning sites (i.e. hollow or damaged trees) were individually inspected and no sign of use by the fox was observed. Use of the site by the species is considered low unless in transit through its range.

The project area provides ample foraging and roosting habitat for various species or raptors such as American Kestrels, Red-tailed Hawks, Barn Owls, etc.; however, due to the current state of disturbance and continued use of the site by a variety of activities the potential as a raptor breeding or nesting site is considered low.

The Bald eagle (*Haliaeetus leucocephalus*) have a slight potential to use the site for foraging since there is locally suitable habitat and the avian species have high mobility and large home ranges. This special-status wildlife species was listed approximately 1.67 miles to the southeast of the project location. This species is further discussed below. A complete list of the faunal species observed in included as Table 2 – Bass Lake 10 Fauna List July 2014. The database reviews of special status faunal species are included as Table 3 - USFWS Species and Table 4 - CNDDB Species.

5.2.1 Bald Eagle

The Bald eagle is federally listed as threatened (proposed for delisting on July 6, 1999; however no final ruling has been issued by USFWS) and California state listed as endangered, and is Fully Protected by the state. Bald eagles are known to nest along the southern shore of Bass Lake located approximately 1.67 miles southeast of the project site. Bald eagles are also known to winter along the north shore of Eastman Lake located approximately 22 miles southwest from the project site. In the course of foraging, wintering Bald eagles may perch in trees at the project site. In recent years, the Bald eagle has expanded its nesting range as evidenced with the nesting sites at Bass Lake and Eastman Lake. There is low potential for Bald eagle to nest at the project site

due to lack of suitable nesting habitat (i.e., typically conifers greater in size than surrounding trees, with branches or broken tops large enough to support a large stick nest or large Blue oaks greater than 100 years old [CNDDB 2006]). There is no evidence that Bald eagles have nested at the project site in the past, and there is low potential that Bald eagles may nest, or attempt to nest, at the project site.

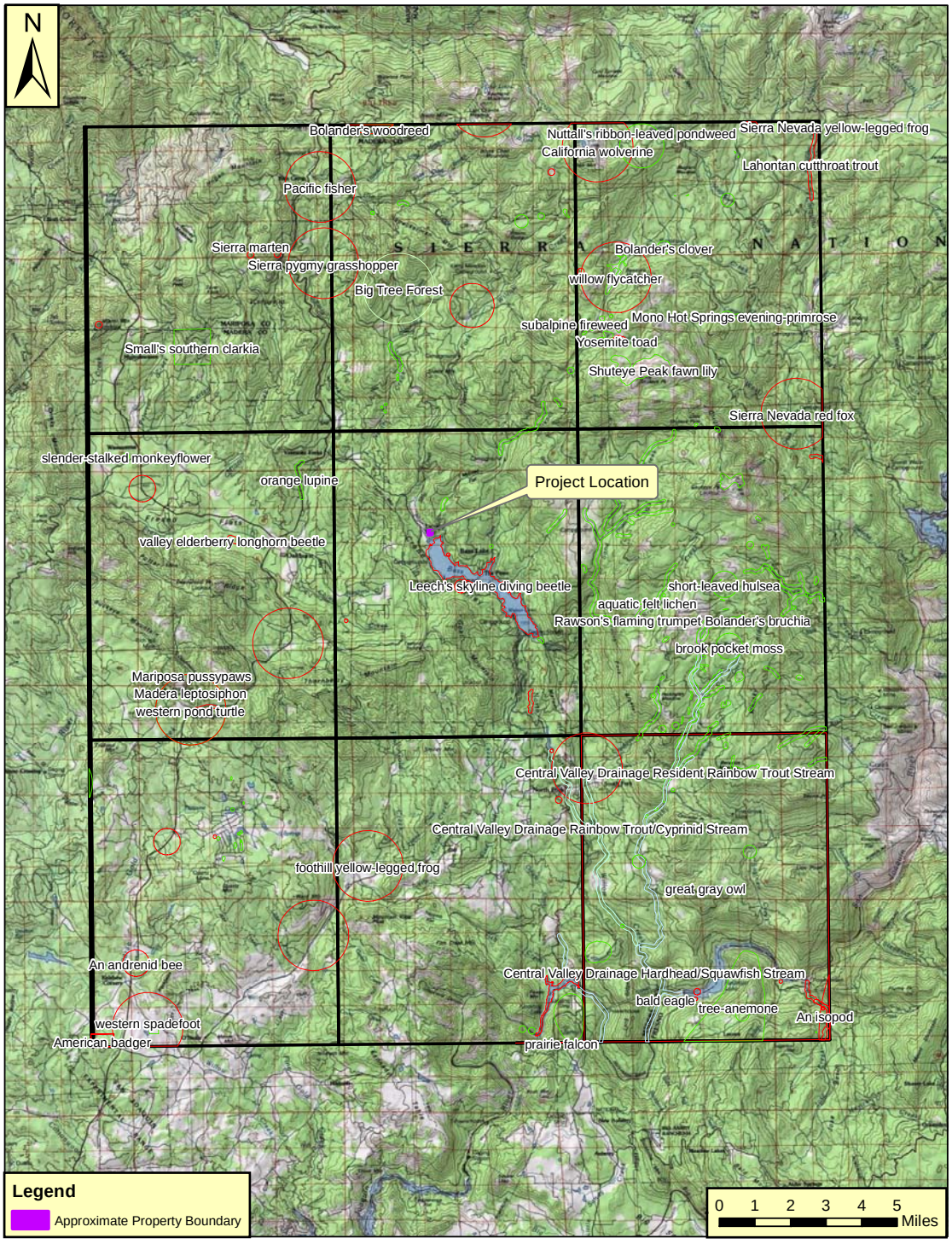


Figure 5 – Bass Lake 10 CNDDB Nine Quad Search Results

Figure 6 – Bass lake 10 CNDDB 1 Mile Buffer

6.0 Existing Level of Disturbance

As noted above, the biotic assessment of the approximately 9.93 acre site consists primarily of disturbed grassland/chaparral (3.33 acres), disturbed Mixed pine/Blue oak woodland (3.29 acres) with interspersed intact Mixed pine/Blue oak woodlands (1.61 acres), intact chaparral (0.40 acres), existing disturbed storage area (0.51 acres), existing disturbed roadways (0.79 acres). Approximately 84% of the site has been significantly disturbed and modified, therefore in terms of biological integrity the site is considered to have low biological function and diversity. The project area was subject to moderate to adverse amounts of disturbance in the form of access roads, turnouts, paths, brushing, and wood gathering activities that appeared to have impacted the associated flora and fauna.

6.1.1 Special Status Species Likely to Occur in the Project Area

No special status species protected under the state or federal endangered species legislation, or otherwise listed by state and federal agencies as sensitive were indicated by the CNDDB as potentially occurring within the bounds of the project area. The site is considered to have low potential for the occurrence of any of the listed species.

6.1.2 Important Natural Communities

None of the habitats of the project area would be considered important natural communities (i.e. natural communities defined by their rarity of their constituent plant and animal species).

6.1.3 Birds of Prey

Potential nesting habitat for birds of prey was present at the project site but no nests were observed. Due to the timing of the survey, active raptor nests, if present, would have been occupied but as stated before none were observed during the surveys. If the site becomes occupied by birds of prey in the period prior to the development of the site, construction activities or removal of trees containing nests during the nesting period may destroy fertile eggs or nestlings or lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered a violation of federal law.

7.0 PROJECT IMPACTS

7.1 Definition of Significant Impact

The biotic resources of a given site may be adversely affected by its development. Some or all of the vegetation may be removed. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc. may replace those species formerly occurring on a site. Activities resulting in such impacts are generally regulated according to provisions of state and federal laws discussed above in Section 2.0.

Most projects in the state, including general plans, area plans, and specific projects are also subject to the provisions of the California Environmental Quality Act (CEQA). The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. Impacts may or may not be considered significant. According to CEQA, Statutes and Guidelines, "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient, noise, and objects of historic or aesthetic interest" (Remy et. al, 1999). Impacts may be considered significant if they:

- 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 Services;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- 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;
- 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 (Gorsen, 1998).

All areas within the project footprint, including all developed and access roadways, were evaluated for potential impacted by the proposed project. Based on the fact that the

primary roadways are already in place it has been estimated that the improvement of the road system by leveling and paving would likely stay within or around the acres of land already impacted. It is estimated that impacts from the roadways and the residential building pads will primarily impact already disturbed areas with a much smaller percentage affecting the Mixed pine/Blue oak woodlands. The percentage breakdown has been estimated from the habitat maps and project footprint to equate to 84% existing disturbed habitat and less than 16% non-disturbed marginal habitat for the purpose of this assessment. A 25 foot open space buffer is being proposed around the ephemeral drainage. Please refer to Figure 7 – Bass Lake 10 Proposed Open Space Buffer for a graphic depiction of the buffer area.

7.2 Impacts to Waters of the US

The swales on site should not meet the definition of jurisdictional Waters of the US based on the interpretation of the SWANNC and Rapanos decision related to seasonal, intermittent or ephemeral wetlands and drainages since the storm event driven use of these features are all short term, low volume collected from a small watershed area, relatively low velocity. All the features have been significantly altered and channelized on site as well as at or near the edge of the property. The ephemeral drainage will not be impacted due to the proposed placement of the open space buffer discussed above.

Since an open space buffer will be placed on the ephemeral drainage and the roadway crossing this drainage already has an existing culvert it is not projected that site would need a Streambed Alteration Agreement from the California Department of Fish and Wildlife. However, if required, the applicant should submit a Streambed Alteration Agreement to the California Department of Fish and Game in accordance with the requirements of Sections 1600 - 1616 of the California Fish and Game Code. A Streambed Alteration Agreement typically should include, but not be limited to definition of a limited time period for construction, provisions for notification and cleanup of any accidental spills, stream bank revegetation requirements, construction debris and materials removal, and inspection procedures.

Figure 7 – Bass Lake 10 Proposed Open Space Buffer

7.3 Impacts to Special Status Animal Species

Results from the CNDDB, USFWS, and CNPS search indicated that no special status animal species occur within the bounds of the project. Further review of the USFWS "Federal Endangered and Threatened Species List" ("List") that may be affected by projects in the Bass Lake 7 ½ minute quad did not indicate species that are currently present on the property. ESR, INC. biologists did not identified wildlife species in the vicinity of the project area that are protected by state and/or federal agencies, yet are not classified as threatened or endangered (i.e. proposed, candidate, species of special concern, watch list, etc.), that would be affected by the project.

7.4 Impacts to Special Status Plant Species

Results from the CNDDB, USFWS, and CNPS search indicated that no special status plant species occur within the bounds of the project area listed in Table 3, Table 4, and Table 5. ESR, Inc. biologists did not identify any special status plant species during the 2014 reconnaissance level field surveys. Due to the timing of the floral surveys, the flowering season was observed for the floral species of interest.

7.5 Disturbance to Nesting Raptors

Mixed pine/Blue oak woodlands support stands of Blue oak, pine, cedar, and interior live oak trees that may be used by the nesting of raptors. Removal of these trees or nearby construction activities during the nesting period may destroy nests or, at a minimum, disturb nestlings, if present. Disturbance to nesting adults may result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered a violation of federal law and would constitute a potentially significant effect. The mitigation measures presented in Section 9.0 suggest methods to minimize potential impacts.

7.6 Interference with Wildlife Movement

No detailed studies of wildlife movement were conducted within the project area. The species that were observed during the field level reconnaissance survey listed in Table 2. A number of terrestrial vertebrate species, primarily birds, use this site. Some migratory species pass through from time to time. Home range and dispersal movements of some species may be expected within the project area. Portions of the

project area may function as a “transitional movement corridor” to some wildlife species. Corridors are characterized by the regular movements of one or more species through relatively well defined areas and are often associated with ridgelines, wetland complexes and well-developed riparian habitats of major rivers and creeks. Furthermore, the diversity of wildlife using the project area does not appear to be limited by the current land use practices. The proposed project may is not anticipated to affect the home ranges and dispersal movements of wildlife species associated with the project area’s current disturbed grasslands/mixed chaparral, chaparral, disturbed Mixed pine/Blue oak woodlands, Mixed pine/Blue oak woodlands or the swales and ephemeral drainage located at the site.

8.0 CUMULATIVE EFFECTS

Project implementation is anticipated to effect minimal amounts of high diversity habitats (i.e., Mixed pine/Blue oak woodland, ephemeral drainages, and non-jurisdictional swales) due to the construction of the residential buildings and appurtenances. In addition, development of certain project phases may enhance habitats for wildlife species (i.e., migratory birds, small mammals, amphibians, etc.) by providing supplemental foraging, roosting, and nesting/bedding sites.

9.0 MITIGATION MEASURES

9.1 Impacts to Special Status Animal Species

There are no anticipated impacts to special status animal species potentially occurring within the bounds of the project area if the following measures are implemented:

- **Preconstruction surveys.** Prior to construction of the roadways and infrastructure within this habitat, a qualified biologist should conduct a preconstruction survey for special-status species in areas slated for development of the tentative map improvements. Only if special-status species are identified during the preconstruction survey will an addendum to this report be prepared addressing the species.

- **Avoidance.** If special-status species are found in areas slated for removal, construction should be delayed until further consultations with the appropriate agencies are completed.

9.2 Impacts to Special Status Plant Species

There are no anticipated impacts to special status plant species potentially occurring within the bounds of the project area if the following measures are implemented:

- **Preconstruction surveys.** Preconstruction surveys for special status plant species should be conducted in all areas where roadway and infrastructure development depicted on the tentative map is slated to occur. These surveys should be conducted by a qualified botanist pursuant to "Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants" (USFWS, 1996a). Only if special-status species are identified during the survey will an addendum to this report be prepared addressing the species.

- **Development of a Mitigation Plan.** In the event that special status plant species are identified, a mitigation measures should be conducted in accordance with the California Native Plant Society's "Policy on Mitigation Regarding Impacts to Rare, Threatened, and Endangered Plants" (CNPS, 1991).

9.3 Disturbance to Nesting Raptors

Portions of the project area provide suitable nesting habitat for various species of raptors. Raptors typically breed and rear their young between the months of February through early August. Implementation of one or both of the following measures will likely reduce impacts to nesting raptors to a less than significant level if project construction were to occur during this period.

- **Preconstruction Surveys.** During the raptor nesting season the applicant should have a qualified biologist survey construction areas where roadway and infrastructure development depicted on the tentative map is slated to occur and their immediate vicinity for active raptor nests. The surveys should be conducted according to a protocol developed in consultation with the California Department of Fish and Game. Only if special-status species are identified during the survey will an addendum to this report be prepared addressing the species.

- **Avoidance.** Active raptor nests discovered during the preconstruction survey should be marked on a map. A construction-free setback or buffer should be

established around each active nest by means of fencing or stakes with conspicuous flagging. No construction activities should be permitted within the buffer area until the young have fledged or the species are no longer attempting to nest.

9.4 Interference with Wildlife Movement

The project area may contain “transitional movement corridors” for native wildlife; with species inhabiting vegetation associated primarily with the mixed pine/Blue oak woodlands. Few native wildlife species occurring on the site (with the possible exception of some avian species) are migratory. Impacts attributable to the development of Bass Lake 10 site are anticipated to be less than significant to movement corridors for native wildlife.

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Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+[1]*Allium amplectens*	Paper onion	Amaryllidaceae
	Triteleia laxa	Ithuriel's spear	Amaryllidaceae
X[2]	+*Toxicodendron diversilobum*	Poison Oak	Anacardiaceae
X	*Anthriscus caucalis*	Bur Chervil	Apiaceae
X	+*Apiastrum angustifolium*	Wild Celery	Apiaceae
	+*Bowlesia incana*	Bowlesia	Apiaceae
	Conium maculatum	Poison Hemlock	Apiaceae
	+*Crepis sp.*	Hawksbeard	Apiaceae
	+*Daucus pusillus*	Rattlesnake Weed	Apiaceae
	+*Lomatium parvifolium*	Coast Parsnip	Apiaceae
	+*Lomatium utriculatum*	Foothill Lomatium	Apiaceae
	+*Sanicula arctopoides*	Footsteps of Spring	Apiaceae
X	+*Sanicula bipinnatifida*	Purple Sanicle	Apiaceae
	+*Sanicula crassicaulis*	Gambleweed	Apiaceae
	+*Sanicula laciniata*	Coast Sanicle	Apiaceae
	Torilis arvensis	Field Hedge Parsley	Apiaceae
	Torilis nodosa	Knottewd Hedge Parsley	Apiaceae
X	+*Asclepias californica*	California Milkweed	Asclepiadaceae
	+*Asclepias eriocarpa*	Indian Milkweed	Asclepiadaceae
	+*Asclepias fascicularis*	Milkweed	Asclepiadaceae
X	+*Achillea millefolium*	Common Yarrow	Asteraceae
X	+*Agoseris grandiflora*	California Dandelion	Asteraceae
X	+*Ambrosia acanthicarpa*	Annual Burweed	Asteraceae
	+*Ancistrocarphus filagineus*	Hooked Stylocline	Asteraceae
	+*Artemisia californica*	Coast Sagebrush	Asteraceae

[1] + = California Native Species

[2] Row is checked (X) if species was found during survey on site or in general area.

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
X	*+Artemisia douglasiana*	Douglas' Mugwort	Asteraceae
	Artemesia ludoviciana	White sagebrush	Asteraceae
	+Aster radulinus	Woodland Aster	Asteraceae
	+Baccharis douglasii	Douglas' Baccharis	Asteraceae
	+Baccharis pilularis	Coyote Brush	Asteraceae
X	*Carduus pycnocephalus*	Italian Thistle	Asteraceae
	Carduus tenuiflorus	Slender-Flowered Thistle	Asteraceae
	Centaurea melitensis	Tocalote	Asteraceae
X	*Chamomilla suaveolens*	Pineapple Weed	Asteraceae
	Cirsium occidentale var. californicum	Bigelow thistle	Asteraceae
	+Cirsium quercetorum	Brownie Thistle	Asteraceae
	Cirsium vulgare	Bull Thistle	Asteraceae
X	*Conyza floribunda (= C. sumatrensis, C. bonariensis)*	Horseweed; Narrowleaf flax	Asteraceae
	Cotula australis	Australian Cotula	Asteraceae
	Cotula coronopifolia	Brass Buttons	Asteraceae
X	*Erechtites glomerata*	Cut-leaved Fireweed	Asteraceae
	+Erigeron foliosus	Leafy Daisy	Asteraceae
X	*+Eriophyllum confertiflorum*	Golden Yarrow	Asteraceae
	+Filago californica	California Filago	Asteraceae
	Filago gallica	Narrow-leaved Filago	Asteraceae
	+Gnaphalium bicolor	Bioletti's Cudweed	Asteraceae
X	*+Gnaphalium californicum*	California Cudweed	Asteraceae
	+Gnaphalium canescens ssp. beneolens	Fragrant Everlasting	Asteraceae
	+Gnaphalium canescens ssp. microcephalum	White Everlasting	Asteraceae
	Gnaphalium luteo-album	Weedy Cudweed	Asteraceae
X	*+Gnaphalium purpureum*	Purple Cudweed	Asteraceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+*Gnaphalium ramosissimum*	Pink Everlasting	Asteraceae
	+*Gnaphalium stramineum*	Cotton-Batting Plant	Asteraceae
	+*Helenium puberulum*	Sneezeweed	Asteraceae
X	*Hemizonia congesta*	Yellow tarweed	Asteraceae
X	+*Hemizonia corymbosa*	Coast Tarweed	Asteraceae
	+*Hesperevax acaulis*	Dwarf Hesperevax	Asteraceae
	+*Heterotheca sessiliflora*	Hairy Golden Aster	Asteraceae
	Hypochaeris glabra	Smooth Cat's Ear	Asteraceae
	Hypochaeris radicata	Rough Cat's Ear	Asteraceae
X	*Lactuca serriola*	Prickly Lettuce	Asteraceae
	+*Lasthenia californica*	Goldfields	Asteraceae
	+*Layia hieracioides*	Tall Layia	Asteraceae
	+*Layia platyglossa ssp. campestris*	Tidy Tips	Asteraceae
	+*Lessingia glandulifera var. pectinata*	Common Lessingia	Asteraceae
	+*Lessingia filaginifolia (Corethrogyne f.)*	Common Beach-Aster	Asteraceae
	+*Madia exigua*	Small Tarweed	Asteraceae
	+*Madia gracilis*	Slender Tarweed	Asteraceae
X	+*Madia gracilis*	Coast Tarweed	Asteraceae
	+*Micropus amphibolus*	Mt. Diablo Cottonweed	Asteraceae
	+*Micropus californicus*	Slender Cottonweed	Asteraceae
	+*Pentachaeta alsinoides*	Tiny Pentachaeta	Asteraceae
X	*Picris echioides*	Bristly Ox-Tongue	Asteraceae
X	+*Rafinesquia californica*	California Chicory	Asteraceae
	+*Senecio aronicoides*	California Butterweed	Asteraceae
X	*Senecio vulgaris*	Common Groundsel	Asteraceae
	Senecio sylvaticus		Asteraceae
X	*Silybum marianum*	Milk Thistle	Asteraceae
	Soliva sessilis	Common Soliva	Asteraceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
X	*Sonchus asper*	Prickly Sow-Thistle	Asteraceae
X	*Sonchus oleraceus*	Common Sow-Thistle	Asteraceae
	+Stephanomeria virgata	Tall Stephanomeria	Asteraceae
	+Stylocline gnaphaloides	Everlasting Stylocline	Asteraceae
X	*Taraxacum officinale*	Common Dandelion	Asteraceae
	+Uropappus lindleyi	Uropappus	Asteraceae
	Xanthium strumartium	Common Cocklebur	Asteraceae
	+Wyethia augustifolia	Narrowleaf Mule-Ears	Asteraceae
	+Wyethia glabra	Smooth Mule-Ears	Asteraceae
	+Wyethia helenioides	Gray Mule-Ears	Asteraceae
	+Amsinckia lunaris	Bent-Flowered Fiddleneck	Boraginaceae
X	*+Amsinckia menziesii var. intermedia*	Common Fiddleneck	Boraginaceae
	+Amsinckia menziesii var. menziesii	Large Fiddleneck	Boraginaceae
	+Cryptantha sp.		Boraginaceae
	+Cryptantha clevelandii	Cleveland's Cyptantha	Boraginaceae
X	*+Cryptantha micromeres*	Minute Flowered Cryptantha	Boraginaceae
	+Cryptantha microstachys	Tejon Cryptantha	Boraginaceae
X	*+Cryptantha muricata*	Prickly Cryptantha	Boraginaceae
	+Heliotropium curassavicum	Heliotrope	Boraginaceae
	+Pectocarya linearis ssp. ferocula	Slender Pectocarya	Boraginaceae
	+Pectocarya penicillata	Winged Pectocarya	Boraginaceae
	+Plagiobothrys canescens	Valley Popcorn Flower	Boraginaceae
	+Plagiobothrys collinus var. fulvescens	California Popcorn Flower	Boraginaceae
X	*+Plagiobothrys nothofulvus*	Popcorn Flower	Boraginaceae
	+Plagiobothrys tenellus	Slender Popcorn Flower	Boraginaceae
	+Psilocarphus tenellus var. tenellus	Slender Woolly-Heads	Boraginaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+Arabis glabra	Tower Mustard	Brassicaceae
	+Athysanus pusillus	Dwarf Athysanus	Brassicaceae
	Brassica tournefortii	Mustard	Brassicaceae
X	*Brassica niger*	Black Mustard	Brassicaceae
X	*Brassica rapar*	Wild Mustard	Brassicaceae
X	*Capsella bursa-pastoris*	Shepherd's Purse	Brassicaceae
	+Cardamine (Dentaria) californica	Milkmaids	Brassicaceae
	+Cardamine oligosperma	Pop Weed	Brassicaceae
	Cardaria chalepensis	Hoary Cress	Brassicaceae
X	*+Guillenia (Thelypodium) lasiophylla*	California Mustard	Brassicaceae
X	*Hirschfeldia incana (=Brassica geniculata)*	Summer Mustard	Brassicaceae
	+Lepidium nitidum var. nitidum	Common Pepper-Grass	Brassicaceae
	Lepidium densiflorum	Common Pepper-Grass	Brassicaceae
	Lepidium strictum	Wayside Pepper-Grass	Brassicaceae
X	*Raphanus sativus*	Wild Radish	Brassicaceae
	+Rorippa nasturtium-aquaticum	Watercress	Brassicaceae
	Sinapsis arvensis	Charlock	Brassicaceae
	Sisymbrium officinale	Hedge Mustard	Brassicaceae
	+Thysanocarpus curvipes	Hairy Fringe Pod	Brassicaceae
	+Thysanocarpus laciniatus var. crenatus	Narrow-Leaved Fringe Pod	Brassicaceae
	+Tropidocarpum gracile	Dobie Pod	Brassicaceae
	+Callitriche marginata	California Water Starwort	Callitrichaceae
	+Triodanis biflora	Venus' Looking Glass	Campanulaceae
X	*+Sambucus mexicana*	Blue Elderberry	Caprifoliaceae
	+Symphoricarpos mollis	Creeping Snowberry	Caprifoliaceae
X	*Cerastium glomeratum*	Mouse-Ear Chickweed	Caryophyllaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	Sagina apetala	Sticky Pearlwort	Caryophyllaceae
	+Sagina decumbens ssp. occidentalis	Western Pearlwort	Caryophyllaceae
X	*Silene antirrhina*	Campion	Caryophyllaceae
X	*Silene gallica*	Windmill Pink	Caryophyllaceae
	Spergula arvensis	Spurry	Caryophyllaceae
	Spergularia rubra	Purple Sand Spurry	Caryophyllaceae
	+Spergularia villosa	Villous Sand Spurry	Caryophyllaceae
X	*Stellaria media*	Common Chickweed	Caryophyllaceae
	Vaccaria hispanica	Spanish Cockle	Caryophyllaceae
	Atriplex sp.		Chenopodiaceae
	Atriplex semibaccata	Australian Saltbrush	Chenopodiaceae
X	*Chenopodium album*	Lamb's Quarters	Chenopodiaceae
X	*+Chenopodium californicum*	California Goosefoot	Chenopodiaceae
	+Helianthemum scoparium var. scoparium	Rush-Rose	Cistaceae
	+Calystegia purpurata		Convolvulaceae
	+Calystegia subacaulis	Hill Morning-Glory	Convolvulaceae
X	*Convolvulus arvensis*	Field Bindweed	Convolvulaceae
	+Crassula connata	Sand Pygmy	Crassulaceae
	Crassula tillaea		Crassulaceae
	+Dudleya lanceolata	Lance-Leaved Dudleya	Crassulaceae
	+Marah fabaceus	Wild Cucumber	Cucurbitaceae
X	*Calocedrus decurrens*	Incense Cedar	Cupressaceae
	+Carex barbarae	Santa Barbara Sedge	Cyperaceae
	+Carex globosa	Round-Fruited Sedge	Cyperaceae
	+Carex triquetra		Cyperaceae
X	*Cyperus eragrostis*	Umbrella Sedge	Cyperaceae
X	*+Eleocharis macrostachya*	Tall Spike-Rush	Cyperaceae
	+Scirpus cernuus	Low Club Rush	Cyperaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+*Dryopteris arguta*	Wood Fern	Dryopteridaceae
X	+*Arctostaphylos tomentosa ssp. crustacea*	Brittle-Leaf Manzanita	Ericaceae
	+*Arctostaphylos uva-uris*	Bearberry	Ericaceae
X	+*Eremocarpus setigerus*	Turkey Mullein, Dove Weed	Euphorbiaceae
	+*Lathyrus vestitus*	Common Pacific Pea	Fabaceae
	Lotus corniculatus	Bird's-Foot Trefoil	Fabaceae
	+*Lotus humistratus*	Short-Podded Trefoil	Fabaceae
	+*Lotus scoparius*	Deerweed	Fabaceae
	+*Lotus strigosus*	Bishop's Lotus	Fabaceae
	+*Lotus wrangelianus*	Chile Lotus	Fabaceae
	+*Lupinus albifrons*	Silver Bush Lupine	Fabaceae
	+*Lupinus benthamii*	Spider Lupine	Fabaceae
	+*Lupinus bicolor*	Lindley's Annual Lupine	Fabaceae
	+*Lupinus aff. bicolor*	Lindley's Annual Lupine	Fabaceae
	+*Lupinus hirsutissimus*	Stinging Lupine	Fabaceae
	+*Lupinus microcarpus*	Valley Lupine	Fabaceae
X	+*Lupinus nanus*	Sky Lupine	Fabaceae
	+*Lupinus succulentus*	Succulent Annual Lupine	Fabaceae
X	*Medicago lupulina*	Black Medic	Fabaceae
X	*Medicago polymorpha*	Bur-Clover	Fabaceae
X	*Melilotus indica*	Yellow Sweet Clover	Fabaceae
	+*Trifolium albopurpureum olivaceum*	Rancheria Clover	Fabaceae
	+*Trifolium bifidum var. decipiens*	Pinole Clover	Fabaceae
	Trifolium cernuum		Fabaceae
	+*Trifolium depauperatum var. truncatum*	Sack Clover	Fabaceae
	Trifolium dubium	Shamrock	Fabaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+*Trifolium gracilentum var. gracilentum*	Pinpoint Clover	Fabaceae
	Trifolium hirtum	Rose Clover	Fabaceae
	Trifolium incarnatum	Crimson Clover	Fabaceae
	+*Trifolium microcephalum*	Maiden Clover	Fabaceae
	+*Trifolium microdon*	Valparaiso Clover	Fabaceae
X	+*Trifolium variegatum var.variegatum*	White-Tipped Clover	Fabaceae
X	+*Trifolium willdenovii*	Tomcat Clover	Fabaceae
X	+*Vicia americana*	American Vetch	Fabaceae
X	+*Vicia sativa*	Spring Vetch	Fabaceae
X	*Vicia villosa*	Woolly Vetch; Winter Vetch	Fabaceae
	+*Quercus agrifolia*	Coast Live Oak	Fagaceae
X	+*Quercus douglasii*	Blue Oak	Fagaceae
X	+*Quercus lobata*	Valley Oak	Fagaceae
X	+*Quercus wislizenii*	Interior Live Oak	Fagaceae
	+*Garrya elliptica*	Coast Silk-Tassel Bush	Garryaceae
	+*Centaurium davyi*	Davy's Centaury	Gentianaceae
X	*Erodium botrys*	Long-Beaked Filaree	Geraniaceae
X	*Erodium cicutarium*	Red-Stemmed Filaree	Geraniaceae
X	*Erodium moschatum*	White-Stemmed Filaree, Musk Filaree	Geraniaceae
	+*Geranium bicknellii*	Bicknell's Geranium	Geraniaceae
X	*Geranium dissectum*	Cut-Leaved Geranium	Geraniaceae
X	*Geranium molle*	Dove's-Foot Geranium	Geraniaceae
X	+*Aesculus californica*	California Buckeye	Hippocastanaceae
	+*Emmenanthe penduliflora*	Whispering Bells	Hydrophyllaceae
	+*Eucrypta chrysanthemifolia*	Common Eucrypta	Hydrophyllaceae
	+*Nemophila aff. pedunculata (N. humifusa)*	Meadow Nemophila	Hydrophyllaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
X	+*Phacelia cicutaria*	CaterpillarPhacelia	Hydrophyllaceae
	+*Phacelia distans*	Wild Heliotrope	Hydrophyllaceae
	+*Phacelia imbricata*	Imbricate Phacelia	Hydrophyllaceae
	+*Phacelia malvifolia*	Stinging Phacelia	Hydrophyllaceae
	+*Phacelia rattanii*	Rattan's Phacelia	Hydrophyllaceae
	+*Pholistoma auritum*	Fiesta Flower	Hydrophyllaceae
	+*Pholistoma membranaceum*	White Fiesta Flower	Hydrophyllaceae
X	+*Juncus balticus*	Wire Rush, Baltic Rush	Juncaceae
X	+*Juncus bufonius*	Common Toad Rush	Juncaceae
	+*Juncus effusus brunneus*	Bog Rush	Juncaceae
X	+*Juncus effusus pacificus*	Pacific Rush	Juncaceae
	+*Juncus patens*	Common Rush	Juncaceae
	+*Juncus phaeocephalus*	Brown-Headed Rush	Juncaceae
	+*Juncus xiphioides*	Iris-Leaved Rush	Juncaceae
	+*Luzula comosa*	Common Wood Rush	Juncaceae
	+*Lilaea scilloides*	Flowering Quillwort	Juncaginaceae
	Marrubium vulgare	Horehound	Lamiaceae
	+*Monardella villosa*	Coyote Mint	Lamiaceae
	+*Salvia columbariae*	Chia	Lamiaceae
	+*Salvia mellifera*	Black Sage	Lamiaceae
	+*Stachys bullata*	California Hedge-Nettle	Lamiaceae
X	+*Trichostema lanceolatum*	Vinegar Weed	Lamiaceae
X	*Brodiaea elegans*	Elegant Brodiea	Lilaceae
X	+*Allium crispum*	Crinkled Onion	Liliaceae
	+*Allium lacunosum*	Pitted Onion	Liliaceae
	+*Bloomeria crocea*	Golden Stars	Liliaceae
X	+*Calochortus albus*	Globe Lily	Liliaceae
X	+*Calochortus luteus*	Gold Nuggets	Liliaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
X	*+Chlorogalum pomeridianum*	Soap Plant	Liliaceae
X	*+Dichelostemma capitata = Brodiaea pulchella*	Blue Dicks	Liliaceae
	+Fritillaria affinis	Checker Lily	Liliaceae
	+Sisyrinchium bellum	Blue-Eyed Grass	Liliaceae
	+Triteleia ixioides	Pretty Face	Liliaceae
X	*Zigadenus fremontii*	Death Camas	Liliaceae
	+Zygadenus fremontii	Fremont's Star Lily	Liliaceae
	+Mentzelia gracilenta	Santa Lucia Stickleaf	Loasaceae
	Lythrum hyssopifolium	Grass Poly	Lythraceae
	+Malacothamnus palmeri var. involucratus	Carmel Valley Bush Mallow	Malvaceae
X	*Malva neglecta*	Common Mallow	Malvaceae
	Malva parviflora	Cheeseweed	Malvaceae
	Sidalcea malvaeflora	Checkerbloom	Malvaceae
	Ficus carica	Fig	Moraceae
	Eucalyptus globulus	Blue Gum	Myrtaceae
	Eucalyptus sp.		Myrtaceae
	+Camissonia contorta	Contorted Primrose	Onagraceae
	+Camissonia micrantha	Small Primrose	Onagraceae
	+Camissonia strigulosa		Onagraceae
	+Clarkia affinis	Small-Flowered Clarkia	Onagraceae
X	*+Clarkia arvensis*	Farewell to Spring	Onagraceae
	+Clarkia cylindrica	Speckled Clarkia	Onagraceae
	+Clarkia epilobioides	Willow-Herb Godetia	Onagraceae
X	*+Clarkia purpurea ssp. quadrivulnera*	Four-Spot Clarkia	Onagraceae
	+Clarkia unguiculata	Elegant Clarkia	Onagraceae
	+Dodecatheon clevelandii	Padres' Shooting Star	Onagraceae
	+Dodecatheon hendersonii	Shooting Star	Onagraceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+Epilobium canum (Zauschneria californica)	California Fuchsia	Onagraceae
	+Epilobium ciliatum	California Willow-Herb	Onagraceae
	+Epilobium minutum	Minute Willow-Herb	Onagraceae
	+Orobanche bulbosa	Chaparral Broomrape	Orobanchaceae
	+Orobanche fasciculata	Clustered Broomrape	Orobanchaceae
X	*Oxalis corniculata*	Creeping oxalis	Oxalidaceae
	+Eschscholzia caespitosa	Tufted Poppy	Papaveraceae
X	*+Eschscholzia californica*	California Poppy	Papaveraceae
	+Papaver californicum	Fire Poppy	Papaveraceae
	+Platystemon californicus	Cream Cups	Papaveraceae
	Pinus coulteri	Coulter Pine	Pinaceae
X	*Pinus ponderosa*	Pacific Ponderosa Pine	Pinaceae
X	*Pinus sabiana*	Gray or Foothill Pine	Pinaceae
X	*Plantago coronopus*	Cut-Leaved Plantain	Plantaginaceae
X	*+Plantago erecta*	California Plantain	Plantaginaceae
X	*Plantago lanceolata*	English Plantain	Plantaginaceae
	+Platanus racemosa	California Sycamore	Platanaceae
X	*+Agrostis exarata var. pacifica*	Western Bentgrass	Poaceae
X	*+Agrostis pallens*	Leafy Bent Grass	Poaceae
X	*Aira caryophyllea*	Silver Hairgrass	Poaceae
X	*Avena barbata*	Slender Wild Oat	Poaceae
X	*Avena fatua*	Wild Oat	Poaceae
	Briza maxima	Quake Grass	Poaceae
X	*Briza minor*	Minor Quake Grass	Poaceae
	Bromus arenarius	Australian Chess	Poaceae
X	*+Bromus carinatus*	California Brome	Poaceae
X	*Bromus diandrus*	Ripgut Grass	Poaceae
X	*Bromus hordeaceus*	Soft Chess	Poaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	Bromus madritensis ssp. madritensis	Spanish Brome	Poaceae
X	*Bromus madritensis ssp. rubens*	Foxtail Chess	Poaceae
X	*Bromus rigidus*	Ripgut Brome	Poaceae
X	*Bromus secalinus*	Chess	Poaceae
X	*Bromus tectorum*	Cheat Grass	Poaceae
	Cynodon dactylon	Bermuda Grass	Poaceae
	Desmazeria (Scleropoa) rigida		Poaceae
	+Distichlis spicata	Salt Grass	Poaceae
X	*+Elymus elymoides or E. multisetus*	Squirreltail Grass	Poaceae
X	*+Elymus glaucus*	Western Ryegrass	Poaceae
X	*+Festuca californica*	California Fescue	Poaceae
	Gastridium ventricosum	Nit Grass	Poaceae
X	*+Glyceria occidentalis*	Mannagrass	Poaceae
X	*+Hordeum brachyantherum*	Meadow Barley	Poaceae
X	*Hordeum marinum ssp. gussoneanum (H. hystrix)*	Mediterranean Barley	Poaceae
X	*Hordeum murinum ssp. leporinum*	Farmer's Foxtail	Poaceae
	+Koeleria macrantha	June Grass	Poaceae
	Lamarckia aurea	Sprangletop Grass, Goldentop	Poaceae
	+Leymus condensatus	Giant Ryegrass	Poaceae
	+Leymus triticoides	Creeping Wildrye	Poaceae
X	*Lolium multiflorum*	Italian Ryegrass	Poaceae
X	*Lolium perenne*	Perennial Ryegrass	Poaceae
X	*+Melica californica*	California Melica	Poaceae
	+Melica imperfecta	Western Melica	Poaceae
	+Nassella cernua	Needle and Thread	Poaceae
	+Nassella lepida	Foothill Needlegrass	Poaceae
	+Nassella pulchra	Purple Needlegrass	Poaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	Phalaris aquatica	Harding Grass	Poaceae
X	*Phalaris arundinacae*	Canary Grass	Poaceae
	+Phalaris lemmoni	Lemmon's Canary Grass	Poaceae
X	*Poa annua*	Annual Bluegrass	Poaceae
	+Poa howellii	Howell's Bluegrass	Poaceae
	+Poa secunda	Pine Bluegrass	Poaceae
	Polypogon interruptus	Beard Grass	Poaceae
X	*Polypogon monspeliensis*	Rabbitfoot Grass	Poaceae
	+Scribneria bolanderi	Scribneria Grass	Poaceae
X	*Taeniatherum caput-medusae*	Medusa Head	Poaceae
X	*Vulpia bromoides*	Six-Week Fescue	Poaceae
X	*+Vulpia microstachys var. pauciflora*	Pacific Fescue	Poaceae
X	*Vulpia myuros*	Rat-Tail Fescue	Poaceae
X	*+Vulpia octoflora*	Slender Fescue	Poaceae
	+Eriastrum virgatum	Virgate Eriastrum	Polemoniaceae
X	*+Gilia achilleifolia*	California Gilia	Polemoniaceae
	+Gilia aff. clivorum		Polemoniaceae
X	*+Gilia tricolor*	Tricolor Gilia	Polemoniaceae
	+Linanthus androsaceus		Polemoniaceae
X	*+Linanthus parviflorus*	Small-Flowered Linanthus	Polemoniaceae
	+Linanthus pygmaeus ssp. continentalis	Pygmy Linanthus	Polemoniaceae
	+Navarretia atractyloides	Holly-Leaved Navarretia	Polemoniaceae
	+Navarretia mellita	Honey-Scented Navarretia	Polemoniaceae
	+Chorizanthe diffusa	Diffuse Spineflower	Polygonaceae
	+Eriogonum elongatum	Long-Stemmed Buckwheat	Polygonaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+Eriogonum nortonii	Pinnacles Buckwheat	Polygonaceae
X	*+Eriogonum nudum var. auriculatum*	Naked; Nude Buckwheat	Polygonaceae
	+Eriogonum vimineum	Wicker Buckwheat	Polygonaceae
X	*Polygonum arenastrum*	Common Knotweed	Polygonaceae
	+Pterostegia drymarioides	Pterostegia	Polygonaceae
X	*Rumex acetosella*	Sheep Sorrel	Polygonaceae
	Rumex conglomeratus	Green Dock	Polygonaceae
X	*Rumex crispus*	Curly Dock	Polygonaceae
	Rumex pulcher	Fiddle Dock	Polygonaceae
X	*+Rumex salicifolius*	Willow Dock	Polygonaceae
	+Polypodium californicum	California Polypody	Polypodiaceae
	+Polypodium calirhiza		Polypodiaceae
	+Calandrinia breweri	Brewer's Red Maids	Portulacaceae
X	*+Calandrinia ciliata*	Red Maids	Portulacaceae
	+Claytonia parviflora	Small-Flowered Claytonia	Portulacaceae
X	*+Claytonia perfoliata*	Miner's Lettuce	Portulacaceae
	+Claytonia rubra		Portulacaceae
	+Lewisia rediviva	Bitterroot	Portulacaceae
	+Montia fontana (M. verna)	Water Montia	Portulacaceae
X	*Anagallis arvensis*	Scarlet Pimpernel	Primulaceae
	+Adiantum jordanii	California Maidenhair Fern	Pteridaceae
	+Pellaea andromedaefolia	Coffee Fern	Pteridaceae
	+Pellaea mucronata	Bird's-Foot Fern	Pteridaceae
	+Pentagramma triangularis	Goldback Fern	Pteridaceae
	+Delphinium patens	Coast Larkspur	Ranunculaceae
	+Delphinium parryi or D. variegatum	Parry's Larkspur or Royal Larkspur	Ranunculaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+*Delphinium virescens*	Prairie Larkspur	Ranunculaceae
	+*Ranunculus californicus*	California Buttercup	Ranunculaceae
	+*Ranunculus hebecarpus*	Downy Buttercup	Ranunculaceae
X	+*Ceanothus cuneatus var. cuneatus*	Buck Brush	Rhamnaceae
X	+*Ceanothus intergerrimus*	Deer Brush	Rhamnaceae
X	+*Ceanothus leucodermis*	Chapparal Whitethorn	Rhamnaceae
	+*Ceanothus oliganthus var. sorediatus*	Jim Brush	Rhamnaceae
	+*Rhamnus californica*	Coffeeberry	Rhamnaceae
	+*Rhamnus crocea*	Redberry	Rhamnaceae
	+*Adenostoma fasciculatum*	Chamise	Rosaceae
	+*Aphanes occidentalis (Alchemilla o.)*	Lady's Mantle	Rosaceae
	+*Heteromeles arbutifolia*	Toyon	Rosaceae
X	+*Holodiscus discolor*	Cream Bush	Rosaceae
	+*Horkelia californica ssp. frondosa*	Leafy Horkelia	Rosaceae
	+*Potentilla glandulosa*	Sticky Cinquefoil	Rosaceae
	+*Prunus ilicifolia*	Holly-Leaved Cherry	Rosaceae
X	+*Rosa californica*	California Wild Rose	Rosaceae
	+*Rubus ursinus*	California Blackberry	Rosaceae
X	*Galium aparine*	Goose Grass, Cleavers	Rubiaceae
X	+*Galium californicum*	California Bedstraw	Rubiaceae
	+*Galium porrigens*	Climbing Bedstraw	Rubiaceae
	+*Salix goodingii*	Black Willow	Salicaceae
	+*Salix lasiolepis*	Arroyo Willow	Salicaceae
	+*Lithophragma affinis*	Woodland Star	Saxifragaceae
	+*Lithophragma bolanderi*	Woodland Star	Saxifragaceae
	+*Lithophragma heterophylla*	Hill Star	Saxifragaceae
	+*Ribes californicum*	Hillside Gooseberry	Saxifragaceae
	+*Ribes malvaceum*	Chaparral Currant	Saxifragaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+*Saxifraga californica*	California Saxifrage	Saxifragaceae
X	+*Antirrhinum multiflorum*	Sticky Snapdragon	Scrophulariaceae
	+*Antirrhinum kelloggii (Asarina stricta)*	Twining Snapdragon	Scrophulariaceae
	+*Castilleja affinis*	Coast Paintbrush	Scrophulariaceae
X	+*Castilleja applegatei*	Paintbrush	Scrophulariaceae
X	+*Castilleja attenuata*	Narrow-leaved Owl's Clover; Vallet Tassel	Scrophulariaceae
X	+*Castilleja exserta ssp. exserta*	Purple, Pink Owl's Clover	Scrophulariaceae
	+*Castilleja tenius*	Hairy Owl's Clover	Scrophulariaceae
X	+*Collinsia heterophylla*	Chinese Houses	Scrophulariaceae
	+*Cordylanthus rigidus*	Bird's-Beak	Scrophulariaceae
	+*Linaria canadensis*	Blue Toad-Flax	Scrophulariaceae
	+*Mimulus aurantiacus*	Sticky Monkeyflower	Scrophulariaceae
	+*Mimulus cardinalis*	Scarlet Monkeyflower	Scrophulariaceae
	+*Mimulus floribundus*	Floriferous Monkeyflower	Scrophulariaceae
X	+*Mimulus guttatus*	Common Monkeyflower	Scrophulariaceae
	+*Pedicularis densiflora*	Indian Warrior	Scrophulariaceae
	+*Scrophularia californica*	California Bee Plant	Scrophulariaceae
	+*Scutellaria tuberosa*	Dannie's Skullcap	Scrophulariaceae
	+*Triphysaria pusilla*	Dwarf Owl's Clover	Scrophulariaceae
	Veronica americana	American Brookline	Scrophulariaceae
	Veronica persica	Persian Speedwell	Scrophulariaceae
	+*Selaginella bigelovii*	Bigelow's Moss-Fern	Selaginellaceae
	+*Solanum umbelliferum*	Blue Witch	Solanaceae
X	+*Fremontodendron californicum*	Flannel Bush	Sterculiaceae
	+*Typha angustiflora*	Narrow-leaf Cattail	Typhaceae
	+*Typha latifolia*	Cattail	Typhaceae

Table 1 – Bass Lake 10 Plant List, March – July 2014			
	Name	**Common Name**	**Family**
	+Herniaria hirsuta ssp. cinerea	Gray Herniaria	Urticaceae
X	*+Hesperocnide tenella*	Western Nettle	Urticaceae
	+Urtica dioica ssp. gracilis		Urticaceae
	+Urtica dioica ssp holosericea	Stinging Nettle	Urticaceae
	Urtica urens	Dwarf Nettle	Urticaceae
	+Plectritis ciliosa	Long-Spurred Plectritis	Valerianaceae
	+Plectritis congesta	Pink Plectritis	Valerianaceae
	+Plectritis sp.		Valerianaceae
	+Verbena lasiostachys	Western Vervain	Verbenaceae
	+Viola pedunculata ssp tenuifolia	Johnny Jump-Up	Violaceae
	Tribulus terrestris	Puncture Vine	Zygophilyceae

Table 2 – Bass Lake 10 Fauna List July 2014			
OBSERVED SPECIES			
CLASS	**ORDER**	**FAMILY**	**SPECIES**
AMPHIBIA	**SALIENTIA** (Frogs/Toads)	**HYLIDAE** (Tree Frogs)	Pacific Tree Frog (*Hyla regilla*)
REPTILIA	**SQUAMATA** (Lizards/Snakes) **SUBORDER SAURIA** (Lizards)	**IGUANIDAE** (Iguanids)	Western Fence Lizard (*Sceloporus occidentalis*)
		ANGUIDAE (Alligator Lizards)	Southern Alligator Lizard (*Gerrhonotus multicarinatus*)
	SERPENTES (Snakes)	**COLUBRIDAE** (Colubrids)	California King Snake (*Lampropeltis getulus californiae*)
AVES	**CICONIIFORMES** (Herons, Storks, Ibises, New World Vultures)	**CATHARTIDAE** (American Vultures)	Turkey Vulture (*Cathartes aura*)
	FALCONIFORMES (Hawks/Falcons	**ACCIPITRIDAE** (Hawks, Harriers)	Red-tailed Hawk (*Buteo jamaicensis*)
		FALCONIDAE (Caracaras, Falcons)	American Kestrel (*Falco sparverius*)
	GALLIFORMES (Megapodes, Currassows, Pheasants)	**PHASIANIDAE** (Quails, Pheasants)	California Quail (*Callipepla californica*)
	CHARADRIIFORMES (Shorebirds/Gulls)	**CHARADRIIDAE** (Plovers)	Killdeer (*Charadrius vociferus*)
	COLUMBIFORMES (Pigeons/Doves)	**COLUMBIDAE** (Pigeons/Doves)	Mourning Dove (*Zenaida macroura*)
	PICIFORMES (Woodpeckers)	**PICIDAE** (Woodpeckers, Wrynecks)	Acorn Woodpecker (*Melanerpes formicivorus*)
	PASSERIFORMES (Perching Birds)	**TYRANNIDAE** (Tyrant Flycatchers)	Black Phoebe (*Sayornis nigricans*)

Table 2 – Bass Lake 10 Fauna List July 2014			
OBSERVED SPECIES			
CLASS	**ORDER**	**FAMILY**	**SPECIES**
			Say's Phoebe (*Sayornis saya*)
			Western Kingbird (*Tyrannus verticalis*)
		CORVIDAE (Jays, Magpies, Crows)	Western Scrub-Jay (*Aphelocoma californica*)
			Common Raven (*Corvus corax*)
		PARIDAE (Titmice)	Oak Titmouse (*Baeolophus inornatus*)
		AEGITHALIDAE (Bushtit)	Bushtit (*Psaltriparus minimus*)
		TURDIDAE (Thrushes, Robins, Bluebirds)	Western Bluebird (*Sialia mexicana*)
			American Robin (*Turdus migratorius*)
		STURNIDAE (Starlings)	European Starling (*Sturnus vulgaris*)
		EMBERIZIDAE (Towhees, Sparrows, Longspurs)	Dark-eyed Junco (*Junco hyemalis*)
		ICTERIDAE (Blackbirds, Orioles)	Red-winged Blackbird (*Agelaius phoeniceus*)
			Western Meadowlark (*Sturnella neglecta*)
			Brewer's Blackbird (*Euphagus cyanocephalus*)

Table 2 – Bass Lake 10 Fauna List July 2014			
OBSERVED SPECIES			
CLASS	**ORDER**	**FAMILY**	**SPECIES**
		FRINGILLIDAE (Finches)	House Finch (*Carpodacus mexicanus*)
		PASSERIDAE (Weaver Finches)	House Sparrow (*Passer domesticus*)
MAMMALIA	**MARSUPIALIA** (Opossums)	**DIDELPHIDAE** (Opossums)	Virginia Opossum (*Didelphis virginiana*) Dead
	LAGOMORPHA (Rabbits, Hares, Pikas)	**LEPORTIDAE** (Rabbits/Hares)	Black-tailed Hare (*Lepus californicus*)
	RODENTIA (Squirrels, Rats, Mice)	**CRICETIDAE** (Deer Mice)	Deer Mouse (*Peromyscus maniculatus*)
	CARNIVORA (Carnivores)	**CANIDAE** (Foxes, Wolves)	Coyote (*Canis latrans*)
			Domestic Dog (C*anis domestica*)
			Gray Fox (*Urocyon cinereoargenteus*)
	ARTIODACTYLA	**CERVIDAE** (Deer)	Black-tailed Deer (*Odocoileus hemionus*)

Table 3 - USFWS Species

U.S. Fish & Wildlife Service, Sacramento Fish & Wildlife Office

Federal Endangered and Threatened Species that Occur in or may be Affected by Projects in the Counties and/or U.S.G.S. 7 1/2 Minute Quads requested in Document Number: 140714103049 Current as of: July 14, 2014

Listed Species

Invertebrates

Branchinecta conservatio
- Conservancy fairy shrimp (E)

Branchinecta lynchi
- Critical habitat, vernal pool fairy shrimp (X)
- Vernal pool fairy shrimp (T)

Desmocerus californicus dimorphus
- Valley elderberry longhorn beetle (T)

Fish

Hypomesus transpacificus
- Delta smelt (T)

Oncorhynchus mykiss
- Central Valley steelhead (T) (NMFS)

Amphibians

Ambystoma californiense
- California tiger salamander, central population (T)

Rana draytonii
- California red-legged frog (T)

Reptiles

Gambelia (=Crotaphytus) sila
- Blunt-nosed leopard lizard (E)

Plants

Calyptridium pulchellum

- Mariposa pussy-paws (T)

Castilleja campestris ssp. succulenta

- Critical habitat, succulent (=fleshy) owl's-clover (X)

Orcuttia inaequalis

- Critical habitat, San Joaquin Valley Orcutt grass (X)

Proposed Species

Amphibians

Anaxyrus canorus

- Yosemite toad (PX)

Candidate Species

Amphibians

Bufo canorus

- Yosemite toad (C)

Rana muscosa

- Mountain yellow-legged frog (C)

Mammals

Martes pennanti

- Fisher (C)

Quads Containing Listed, Proposed or Candidate Species:

- NORTH FORK (398A)
- O'NEALS (398B)
- KNOWLES (399A)
- WHITE CHIEF MTN. (418A)
- FISH CAMP (418B)
- BASS LAKE (418C)
- AHWAHNEE (418D)
- STUMPFIELD MTN. (419A)
- HORSECAMP MOUNTAIN (419D)

Bass Lake U.S.G.S. 7 1/2 Minute Quad
Database Last Updated: July 2014

Queried Species

Invertebrates

Hydroporus leechi

- Leech's skyline diving beetle (No Listing Status)

Fish

None

Amphibians

Rana boylii

- Foothill yellow-legged frog (SC)

Reptiles

Emys (=Clemmys) marmorata - western pond turtle (SC)

Birds

Haliaeetus leucocephalus

- Bald eagle (Delisted; CE)

Mammals

None

Plants

Collomia rawsoniana

- Rawson's flaming trumpet (1B.2

Table 5 - CNPS Species Ecological Report
Nine Quadrangle Survey

Scientific Name	Family	Life Form	Blooming Period	Communities	Elevation	CNPS Listing
Allium abramsii	Alliaceae	perennial bulbiferous herb	May-Jul	•Lower montane coniferous forest (LCFrs) •Upper montane coniferous forest (UCFrs)/Often granitic sand	885 – 3,050 meters	List 1B.2
Calyptridium pulchellum	Montiaceae	annual herb	Apr-Aug	•Chaparral (Chprl) •Cismontane woodland (CmWld)/sandy or gravelly, granitic	400 – 1,220 meters	List 1B.1
Carpenteria californica	Hydrangeaceae	perennial evergreen shrub	May-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld)/usually granitic	340 – 1,340 meters	List 1B.2
Cinna bolanderi	Poaceae	perennial herb	Jul-Sep	•Meadows and seeps (Medws) •Upper montane coniferous forest (UCFrs)/mesic, streamsides	1,670 – 2,440 meters	List 1B.2
Clarkia australis	Onagraceae	annual herb	May-Aug	•Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)	800 – 2,075 meters	List 1B.2
Clarkia rostrata	Onagraceae	annual herb	Apr-May	•Cismontane woodland (CmWld) •Valley and foothill grassland (VFGrs)	60 - 500 meters	List 1B.3
Collomia rawsoniana	Polemoniaceae	perennial rhizomatous herb	Jul-Aug	•Lower montane coniferous forest (LCFrs) Meadows and seeps (Medws) •Riparian forest (RpFrs)/Mesic	780 – 2,200 meters	List 1B.2
Gratiola heterosepala	Plantaginaceae	annual herb	Apr-Aug	•Marshes and swamps (MshSw)(lake margins) •Vernal pools (VnPls)/clay	10 – 2,375 meters	List 1B.2
Hulsea brevifolia	Asteraceae	perennial herb	May-Aug	•Lower montane coniferous forest (LCFrs)	1,500 – 3,200	List 1B.2

Scientific Name	Family	Life Form	Blooming Period	Communities	Elevation	CNPS Listing
				•Upper montane coniferous forest (UCFrs)/granitic or volcanic, gravelly or sandy	meters	
Leptosiphon serrulatus	Polemoniaceae	annual herb	Apr-May	•Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)	300 – 1,300 meters	List 1B.2
Lupinus citrinus var. citrinus	Fabaceae	annual herb	Apr-Jul	•Chaparral (Chprl) •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/granitic	380 – 1,700 meters	List 1B.2
Mimulus acutidens	Phrymaceae	annual herb	Apr-Jul	•Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)	305 – 1,220 meters	List 3
Mimulus gracilipes	Phrymaceae	annual herb	Apr-Jun	•Chaparral (Chprl •Cismontane woodland (CmWld) •Lower montane coniferous forest (LCFrs)/decomposed granitic, often in burned or disturbed areas	500 – 1,300 meters	List 1B.2
Mimulus pulchellus	Phrymaceae	annual herb	Apr-Jul	•Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws)/vernally mesic, often disturbed areas, clay	600 – 2,000 meters	List 1B.2
Trifolium bolanderi	Fabaceae	perennial herb	Jun-Aug	•Lower montane coniferous forest (LCFrs) •Meadows and seeps (Medws) •Upper montane coniferous forest (UCFrs)/mesic	2,039 – 2,600 meters	List 1B.2

MEMORANDUM OF REVIEW AND COMMENT

Date: 8/13/14

EXHIBIT J

FROM: DRAFTING DEPARTMENT
MADERA COUNTY ASSESSOR'S OFFICE
200 WEST FOURTH STREET
MADERA, CALIFORNIA 93637
PH. (559) 675-7710 ext. 2532

TO: MADERA COUNTY PLANNING DEPT
2037 WEST CLEVELAND AVENUE
MADERA, CALIFORNIA 93637

RE: (Please Check One)

____Lot Line Adjustment Review and Comment. (L.L.A. No.)
____Tentative Parcel Map Review and Comment. (P.M. No.)
__X__ **Tentative** Subdivision Review and Comment.
____(Subdivision Name: **PAUL CONTRERAS SUB** Tract # 2014-01)

Name of Applicant	A.P.N.	T.R.A.	M.D./S.A.
MADERA COUNTY (PAUL CONTRERAS)	**059-200-004**	**56-003**	**C.S.A. NO. 02 & C.S.A.02 ZONE A**

(Please Check One of the Below and Attach Comments, If Necessary.)

_____ 1. The Assessor's Office has no objections to the proposals as submitted.
- _____ a. The proposed legal descriptions are OK.
- _____ b. The proposed deeds showing title/ownership are correct.
- _____ c. We have received the AO 93
- _____ d. We have received tax rate area change from State Board of Equalization.

__X__ 2. The Assessor's Office has no objections to the proposal provided that:
- _____ a. The correct proposed legal descriptions are provided prior to completion.
- _____ b. The correct proposed deeds of exchange and title report are provided to check the title/ownership prior to completion
- _____ c. The new acreages (gross and net) of all parcel/lots are provided for review prior to completion.
- _____ d. The Tax Rate Areas can be adjusted. NOTE: Mapping and assignment of APNs cannot be completed until the State Board of Equalization has changed the Tax Rate Area.
- __X__ e. The applicant shows all improvements on applicant's land.
- __X__ f. The applicant files __1__ completed Assessor's Form AO 93 regarding the Subdivision/Parcel Map improvements
- _____ g. The Ag. Preserve Contract must be rescinded and applicant must enter into a new Ag. Preserve Contract.
- _____ h. We are still waiting for _____ completed Assessor's Form AO 93 Forms.
- __X__ i. Please note: **Proposed transfers & subsequent mergers with the parcels encroaching on the Western boundary of this proposal will need to be completed, before this Subdivision map is recorded.**

_____ 3. This proposal is in the Ag. Preserve.

APNs	Prime Acres	Non-Prime Acres

_____ 4. The Assessor's Office cannot complete the proposal as submitted for the reasons stated on the attached memorandum.

If you have any questions or need our assistance regarding your proposal, please contact the Drafting Department at the above address or telephone number.

Sincerely, Curtis Randles

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

EXHIBIT K

JOHANNES J. HOEVERTSZ
DIRECTOR

- 2037 W. Cleveland Avenue
- Madera, CA 93637
- (559) 675-7811 Road
- (559) 675-7817 Engineering
- (559) 675-7820 Special Districts

jhoevertsz2@madera-county.com

MEMORANDUM

DATE September 26, 2014

TO Jamie Bax, Planning Department

FROM Dario Dominguez, Public Works Department

SUBJECT Tentative Subdivision Map S2014-001 Madera County / Paul Contreras

1. The identified parcel is located **in Flood Zone "D"** as shown on the latest Flood Insurance Rate Maps (FIRM), an area determined to be outside the 100-year flood plain. A parcel identified as not being located within a Special Flood Hazard area may be subject to localized drainage problems that are site specific and not included in this flood zone determination.

2. The property is **within Madera County Service Area 2A S, Bass Lake Sewer District (SA2A S).**

APN 059-200-004 currently has 20 Sewer Units allocated. The proposed Subdivision will require 21 Sewer Units to be in compliance with the county ordinance. Hence, the project will need to obtain 1 more Sewer Unit. Please contact our department to obtain information regarding availability and the process to achieve adequate capacity.

3. The proposed Subdivision will be served by the Bass Lake Water Company. A Will Serve Letter which allows the development to connect to their water system is required.

4. Drainage plan will need to be submitted to the Engineering Department which will demonstrate that each property will retain all run-off generated by their parcel, OR a Community Retention Basin that may require an OUTLOT to serve its use.

5. The Preliminary Map shows that the right-of-way will be utilized as Public Utility Easements (PUEs), this is acceptable to our department but the easements will need to be formed.

If you have any questions please contact Dario Dominguez at 559-675-7817 ext 3322.

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MEMORANDUM

To: Jamie Bax, Madera County Planning
Dario Dominguez, Madera County Engineering

From: David McGlasson, PE, PLS

Subject: SM 14-XX Contreras (Jones & Snyder)
Preliminary Map

Date: August 29, 2014

We have reviewed the subject Preliminary Map and have the following comments:

1. The configuration of lots on the map is acceptable for use on the Tentative Subdivision Map in accordance with the Subdivision Map Act.

2. The phasing proposed must be modified. Final map lots must be contiguous. In order to accomplish that end for all three proposed phases, Lot 2 would need to be in phase 1 rather than phase 2.

3. The map declares that all roads will be constructed to 12-percent grade or less, however the road running alongside Lots 10, 12 and 15 to Lot 16 will be at 13.5 percent. The entrance to Lot 16 would have to be lowered more than 10 feet to achieve the 12-percent maximum.

4. The proposed road section shows curb and gutter along one side. This may be problematic on such steep roads, especially since there is no provision to collect storm water shown anywhere on the map. Unless there is a plan for a community storm drain, water should be allowed to drain off both sides of each road into depressions or ditches, without transporting storm water to a point of concentration.

These are our only concerns at this time.

EXHIBIT L

RESOURCE MANAGEMENT AGENCY

Environmental Health Department

Jill Yaeger, Director

· 2037 West Cleveland Avenue
· Madera, CA 93637
· (559) 675-7823

MEMORANDUM

TO: Jamie Bax

FROM: Dexter Marr, Environmental Health Department

DATE: August 20, 2014

RE: Madera County - Subdivision - Bass Lake (059-200-004-000)

Statutes

*Madera County Code 17.48.010 Water systems.
The applicability, design and construction of all waterworks facilities shall be in accordance with the provisions of state law and Article I of Title 13 of this code. A water system with service to each parcel shall be installed in each and every subdivision created within Madera County located below the five hundred-foot contour elevation. For subdivisions and parcel maps located above the five hundred-foot contour, a water system shall be installed in all land divisions with lots less than three acres in size (gross acreage). Water systems in subdivisions shall be operated as a public utility as authorized by the Public Utilities Commission of the state, or be served by a district or public agency for which the board of supervisors is the board of directors and which is authorized by law to provide the water needs. Alternatives to county maintenance districts will be allowed subject to obtaining approved infrastructure plans by the planning commission and board of supervisors. Water supply information acceptable to a certified hydrogeologist is required for all land divisions with parcel sizes three acres or larger. If adequate existing water supply information is not available, well drilling and testing may be required on parcels specified by the environmental health department. (Ord. 278N § 10(part), 2004).

*Madera County Code 17.48.020 Sewage systems.
The applicability, design and construction of all sewage disposal facilities shall be in accordance with the provisions of state law and Article II of Title 13 of this code; provided, that in addition to any and all of said requirements, all proposed subdivisions in the county west of the elevation line designated as the "five hundred-foot contour line" in the foothills of the county shall have installed community sewer disposal systems or an executed contract with an adjoining community sewer system, to which all of the lots within the proposed subdivision shall connect. The county strongly recommends community sewer systems for all subdivisions within the county, but subdivisions proposed east of said five hundred-foot contour line will be considered as to the appropriate installation of septic tanks for each lot therein, when such installation is not in conflict with the sewer ordinance of the county. (Ord. 278N § 10(part), 2004).

Conditions

The Madera County Environmental Health Department (MCEHD) has reviewed Subdivision #2014-001, and has also conferred with the Madera County Engineering Dept. regarding this project, and it has determined the following:

This proposed subdivision shall be served by a community water system and a community sewer system. Water and sewer services for any structures, on any lots, within this development must be connected to an approved community water system as well as a community sewer system. *[MCC 17.48.020 & 17.48.010]

This development is located within Madera County Service Area (CSA) SA 2 S and is included with the County Sewer Master Plan and therefore shall connect to it as an approved community sewer system for each individual parcel within the subdivision. The development shall comply with all CSA requirements.

This development is located within the Bass Lake Water Company and will require a Will Serve Letter as approval of water connection for this proposed subdivision.

Mandatory Solid Waste collection service is recommended.

If there are any questions or comments regarding these conditions please feel free to contact our department at (559) 675-7823, M-F, 8:00 AM to 5:00 PM.

EXHIBIT M

MADERA COUNTY FIRE DEPARTMENT

IN COOPERATION WITH
CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

2037 W. CLEVELAND
MADERA, CALIFORNIA 93637
(559) 661-6333
(559) 675-6973 FAX

DEBORAH KEENAN
MADERA COUNTY FIRE MARSHAL

MEMORANDUM

TO: Jamie Bax

FROM: Deborah Keenan, Fire Marshal

DATE: August 20, 2014

RE: Madera County - Subdivision - Bass Lake (059-200-004-000)

Conditions

A comprehensive Fuel Reduction Plan shall be completed in conjunction with the Fire Marshal?s Office and approved by the Madera County Fire Marshal. Fuel reduction plans shall be required for all developments within State Responsible Areas designated as Wildland Urban Interface. Due to the extreme vegetation in the area major fuel reduction shall be completed based upon site inspection conducted by the Fire Marshal. The Fuel Reduction Plan shall be submitted, approved, implemented and completed as required by the County Fire Marshal prior to recordation of the final map.

All roads accessing the project shall be identified by name and signed at intersections. All cul-de-sac roads shall be signed "NOT A THROUGH ROAD" at intersections.

A fire suppression hydrant system shall be available to within 1000 feet of the frontage of each proposed parcel. Acceptable hydrants shall be able to produce no less than 1,000 gpm at 20 psi for 2 hours. Hydrants shall be tested and approved prior to the recordation of the final map.

The subject property is within State Responsibility Area (SRA); as such a Registered Licensed Professional Forester must determine whether the project site requires a timberland conversion. Contact shall be made with either a Registered Licensed Professional Forester or the CAL-Fire Forestry division in Mariposa (209) 966-3622 extension 218 to determine if any state forest issues will need to be addressed. Documentation of the forester's determination will be needed prior to approval of the final map.

EXHIBIT N

COUNTY OF MADERA
DEPARTMENT OF PUBLIC WORKS

JOHANNES J. HOEVERTSZ
DIRECTOR

- 2037 W. Cleveland Avenue
- Madera, CA 93637
- (559) 675-7811 Road
- (559) 675-7817 Engineering
- (559) 675-7820 Special Districts

jhoevertsz2@madera-county.com

M E M O R A N D U M

TO: Jamie Bax, Planning Department

FROM: Jason Chandler, Road Department

DATE: August 15, 2014

RE: **SUBDIVISION 2014-001, COUNTY OF MADERA**

The Road Department has reviewed the proposed project to allow for a 21 residential lots. The proposed site is located along the north side of County Road 432 near its intersection with County Road 222. The proposed subdivision may be gated; however two (2) points of access will be needed as part of the proposed subdivision.

According to the General Plan, County Road 432 is designated as a local road requiring a right of way width of 60 feet. The existing right of way is of varying width ranging from 60 ft to 80 ft contiguous to the proposed project. This road is paved and is part of the County maintained millage system.

All internal roads shall meet minimum AASHTO 'Very low volume design standards'.

The Road Department recommends the following conditions of compliance:

1. As a condition of approval, the proposed subdivision shall have two points of access onto a through road.

2. All proposed roads shall not exceed the maximum dead end road length.

3. All centerline information must be shown on the map for the proposed roads *(MCC 17.72.100.G)*. The existing as well as all proposed roads shall comply with all applicable County Codes and Standards, and be designed to meet CALTRANS and AASHTO Standards. All off-site roadways connecting the project to Road 432 must meet Caltrans and / or AASHTO Standards. Existing roadways that do not meet the minimum geometric and / or structural standards must be brought up to such standards *(MCC 17.32.080 and 17.32.090)*.

4. All internal roads shall meet minimum AASHTO 'Very low volume design standards'.

5. All internal roads shall be paved and must meet current County Standard.

6. Prior to any road construction where such construction is proposed within an existing public right-of-way, the developer will apply for an Encroachment and Construction Permit

at the Road Department. These permits must be approved prior to any construction *(MCC 17.72.040.A)*.

7. The application materials will include a plan and profile for all proposed road structures, or related improvements drawn to a scale approved by the Road Department, copies of R value tests, calculation of storm drainage facilities, calculations of cut and fill, and an engineer's cost estimate. The plans will include: existing and proposed property lines, topographic contours at intervals of 20 feet, existing fences, buildings, and any infrastructure. A vicinity map, typical cross sections and construction details, proposed improvements, and any other information deemed appropriate by the Road Commissioner or his designee *(MCC 17.32.040.C)*.

8. The design and construction of all roads and road appurtenances will be the responsibility of the developer, who will employ a California registered civil engineer and/or a California registered land surveyor to do all survey work, and a California registered civil engineer to do all road and road appurtenance design, construction supervision, and inspections *(MCC 17.72.050)*.

9. Documentation of all road and road appurtenance construction will include: a written statement signed and stamped by a California registered civil engineer, which attests to the fact that the road and all road appurtenances were designed and constructed in accordance with county code and adopted standards (either CALTRANS or AASHTO). Copies of compaction tests and inspection logs and reproducible AS-BUILT plans, signed and stamped by a California registered Civil engineer or California licensed land surveyor *(MCC 17.32.060)*. All construction documentation must be submitted for review and approved by the Road Department prior to the recordation of the final map except when a bond or other acceptable form of security is offered *(MCC 17.32.070)*.

10. The geometric design of all roads and road appurtenances will be in accordance with county standards road specifications and, or any concept not mentioned either CALTRANS or AASHTO standards *(MCC 17.32.080)*.

11. All required road improvement shall be constructed in accordance with the approved plans and specifications, subject to inspection and acceptance by the Road Department. Inspections costs incurred will be paid by the subdivider as provided in section 17.24.300 (Ord. 278.A, sec 16, 1964 & Ord. 278 sec 802f.1, 1963) *(MCC 17.44.050)*.

12. All internal roads shall be maintained by the Project. A maintenance provision through CC&R's or other maintenance mechanism shall be in place prior to recordation.

13. All appurtenances, such as gates, fences, private signs...shall be located outside the proposed right-of-way.

14. If gates are proposed, then adequate area shall be provided to store vehicles outside the public R/W. Plans shall be submitted to the Road Department for review and approval.

15. Prior to the recordation of the Final Map, the applicant shall pay the appropriate fees for the fabrication and installation of all road signs required.

EXHIBIT O

DEPARTMENT OF TRANSPORTATION
DISTRICT 6
1352 WEST OLIVE AVENUE
P.O. BOX 12616
FRESNO, CA 93778-2616
PHONE (559) 488-7307
FAX (559) 488-4088
TTY (559) 488-4066
www.dot.ca.gov

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August 19, 2014

2131-IGR/CEQA
6-MAD-41-38.990+/-
TENTATIVE TRACT MAP REVIEW BASS LAKE

Ms. Jamie Bax
Madera County
Planning Department
2037 W. Cleveland Avenue
Madera, CA 93637

Dear Ms. Bax:

We have completed our review of the tentative map proposing to develop a 21-lot residential subdivision in the community of Bass Lake. The site plan is located approximately 4 miles away from the State Route (SR) 41 intersection at Road 22. Caltrans has the following comments:

Considering the nature and the location of the Project, it is projected that a percentage of the traffic generated by the development would impact State facilities.

The data provided from the Institute of transportation Engineers (ITE) Trip Generation (9th Ed.) book was used to estimate the number of trips anticipated to be generated by the Project. The land use which best describes the proposed development is "Single Family Detached Housing" (ITE Land Use Code 210). Based on the land use and the site plan it is estimated the Project would generate approximately 21 PM peak hour trips (per ITE). It is predicted a portion of these trips would impact the SR 41 intersection at Road 222. Signalization of SR 41 and Road 222 and the addition of a turn lane are needed to accommodate future projected demand. These improvements were identified by previous traffic studies done in the area. The construction cost for these improvements is calculated to be $550,000, with an estimated cost-per-trip of $1,264. It is projected that 20% (4 trips) of the total 21 trips generated by this development would impact the intersection at SR 41 and Road 222. Therefore this projects proportional share for this improvement would be $5,056 (4 trips X $1,264 = $5,056).

Upon this amount being made a condition of approval for this project, the applicant will need to enter into a Traffic Mitigation Agreement with Caltrans. Should the applicant not concur with our mitigation estimate, it is recommended that the applicant obtain the services of a qualified independent traffic consultant.

If you have any further questions or concerns, please feel free to contact me at (559) 488-7307 or via email jennifer.bryan-sanchez@dot.ca.gov.

Sincerely,

JENNIFER BRYAN-SANCHEZ
Office of Transportation Planning
District 06

EXHIBIT P

NORTH FORK RANCHERIA
OF MONO INDIANS OF CALIFORNIA

TRIBAL GOVERNMENT OFFICE
P.O. Box 929
North Fork, CA 93643-0929
(559) 877-2461
Fax (559) 877-2467
1-866-291-9909

May 2, 2014

Madera County Planning Department
Jamie Bax
2037 W. Cleveland Avenue
Madera, CA 93637

Dear Jamie,

The North Fork Rancheria of Mono Indians of California has reviewed the request for a 21 lot residential subdivision near Bass Lake at the cross roads of County Road 274 and County Road 331. We would like the planning department to fully consider our comments before having it go through the approval process. So that you are familiar with the tribe a general summary is provided below:

Western Mono background: The Western Mono tribal people have utilized the Central Valley, foothill and Central Sierra Nevada range of California for thousands of years. Our tribal aboriginal area is vast, but for a general tribal government office location we are located 30 minutes from the Southern Entrance of Yosemite National Park. Throughout the region our tribal presence is validated by our use of portable mortars and pestles, and tools that are evident at many prehistoric sites throughout our area. Many of these tools are used today in the processing of traditional foods like acorn. Many of the tribal people continue to practice traditional ways and protection of resources is important to the tribe. We continue preservation of our culture and promote the importance of natural resources through outreach and education efforts. Of course many of these values are instilled through family generational stories or practiced methods that are passed from our elders to our youth.

Comments regarding the proposed 21 acre subdivision

Our tribe follows a review process that begins with a review by our Environmental Director who makes a recommendation to our Environmental Committee who in turn accept or modify the recommendation for approval by tribal leadership. Our office received the notice of the proposed activity on April 11, 2014 and didn't have adequate time to address potential concerns. Our first comment is that the tribe had inadequate time to review the project scope. Our committee meets once per month and has not been able to visit the site and would like to request that we be given the opportunity to view the site for further comment.

Our primary concern on this project, based on the information received in the notice, is the potential of finding archeological deposits. The entire Bass Lake area has had tribal occupancy for over 8,000 years. Protection of these deposits are very important to the tribe and more information is required before the tribe is able to determine the likelihood of whether the area needs full protection. In consultation with PG & E on the recent dam seismic retrofit project we know there are numerous sites in and around Bass Lake. The entire project was monitored by the local tribes in the event of archeological discoveries.

Are there known archeological sites in the area? Has the county contacted the Archaeological Information Center in Bakersfield? Native American sites are protected under California Public Resources Code 5097.993. Impacts to these potential resources could damage the integrity of the site if the potential site was eligible for the National Register of Historic Places.

Our last comment is the density of the project within the Wild land Urban Interface (WUI). Due to lack of moisture in recent years the area has high potential for severe fire. Lowering the amount of lots would benefit all future landowners in the event of catastrophic fire including those properties that are bordering the project site.

The tribe recommends that the owner provide a cultural monitor on site for this project. The owner should incorporate a budget for a monitor in project planning financial analysis and estimates. We hope that our comments are helpful as the County moves forward with the review and approval of this project. If you have any questions please contact our Environmental Protection Department, Environmental Director, Christina McDonald at 559-877-2461 or e-mail cmcdonald@nfr-nsn.gov . We look forward to hearing from you about the draft and would like to know of other tribal comments received as you continue your consultation with the tribes.

Respectfully,

Maryann McGovran

Maryann McGovran
Tribal Vice-Chairperson
mmcgovran@nfr-nsn.gov

BASS LAKE WATER COMPANY

EXHIBIT Q

P.O. BOX 113 • BASS LAKE, CALIFORNIA 93604 • FAX 559-642-2771 559-642-2494

July 25, 2014

Jamie Bax
Senior Planner
Madera County Planning Department
2037 W. Cleveland Avenue
Mail Stop G
Madera, Ca. 93637

Dear Ms. Bax;

Re: Paul Contreras Subdivision Tract 2014-01 for APN 059-200-004

This letter is to confirm the above referenced property is within our Service Area at Bass Lake and we are prepared to provide domestic water service to the 21 proposed lots as shown on the Preliminary Subdivision Map that was submitted to us for review.

The conditions of service are outlined in a letter addressed to John Reed dated June 26, 2013. We understand a copy has been supplied to the applicant and one is attached herein for your reference. At the time of the issuance of the letter it was contemplated the project would contain 18 lots. We note the current proposal is for 21 lots. Accordingly it is understood the requirements as discussed in the referenced letter will be increased proportionately.

If you need additional information, please do not hesitate to call.

Sincerely,

Stephen R. Welch
President

Cc: Paul Contreras

BASS LAKE WATER COMPANY

P.O. BOX 113 • BASS LAKE, CALIFORNIA 93604 • FAX 559-642-2771 559-642-2494

June 26, 2013

John Reed
MVP Commercial
P.O. Box 338
Oakhurst, CA 93644

Dear John,

You asked us to provide the Bass Lake Water Company's requirements for new subdivisions within our service area. Specifically, you indicated you are seeking information for a possible 18 unit lot subdivision on the 10 acre parcel off County Road 432 in the Falls Tract area currently owned by Madera County.

Our general policy is for new subdivisions to provide both a source of supply and adequate storage to satisfy the project's need so service and supply to our existing customers are not diminished. This is accomplished by a Main Line Extension Agreement whereby the improvements supplied by the subdivision developer are brought into and become part of the Water Company's facilities. Once the improvements and their cost have been agreed to by both parties, construction completed, and the subdivision finalized annual reimbursement payments consisting of 1/40 of the amount commence to the developer. The improvements for this subdivision would consist of the source of supply (i.e. well), storage and the distribution system.

Our specific requirements for source of supply are 1 GPM per residential unit and for storage of 823 gallons per residential unit. For 18 units, this would mean a new well with at least an 18 GPM yield and additional storage of 15,000 gallons. The infrastructure requirement is for 6" distribution mains with fire hydrants spaced not greater than 500' apart. Our more detailed technical specifications are attached for your review. Additionally, we would require a connection to our existing system be made at the upper end of the property to a 4" line near Road 274 and also to our 8" distribution main in Road 432 near the entrance to the property. Final plans would need to be submitted to us for review and the installation inspected by our staff.

Regarding the storage requirement of 15,000 gallons rather than constructing this relatively small tank on the project property, we would be satisfied with a contribution of $21,450.00 ($1.43/gallon) to the Water Company's parent company, The Pines Resorts, LLC, who has excess storage capacity in a 400,000 gallon tank on the system above The Pines Village. Additionally, we should discuss the possibility of drilling the well on property owned by that company adjacent to The Pines Village since the site has already been approved by the California Department of Public Health as a source for our utility and identified as a high probability location for ground water.

One further item is to advise you that upon connection to the system by each lot, a $2,000.00 connection fee is due. Since it is my understanding the developer intends to sell finished lots, this would be an obligation of the individual lot owner at the time of house construction.

If you have any additional questions, please let me know.

Sincerely,

Stephen R. Welch
President

Enclosure

TECHNICAL SPECIFICATIONS
WATER MAINS and MATERIALS

Scope of Work

Work to be performed under this contract shall consist of furnishing and installing, complete and ready for service, the water mains with various appurtenances as shown on the contract plans and as specified.

The Contractor for this project must understand that this type of work deals with many unforeseen situations. Bass Lake Water Company (BLWC) will assist the Contractor in the control of the water system where work is to be performed. However, the BLWC hereby notifies the Contractor that completing this contract may include working with uncontrollable water flows; total control of the water system may not be possible.

WATER MAINS

I. MATERIALS

All materials used will comply with all applicable AWWA standards, ANSI/NSF 61 and California Assembly Bill 1953.

A. High Density Polyethylene (HDPE) Pipe:

Polyethylene pipe shall be manufactured in accordance with AWWA C901-96 for sizes .75-inch through two-inch IPS diameters and to the requirements of ASTM D3035.

Pipe diameter shall be as indicated on the Proposed Drawings, and shall be a minimum of DR 9 unless otherwise indicated on the Proposed Drawings.

Joining:

1. Polyethylene pipe and fittings may be joined together or to other materials by means of Mac-Pak Compression or Ford Pack Joint or approval equal conforming to AWWA C800 and California AB 1953.
2. Branch connections to the main shall be made with saddle fittings or tees.

B. SCH 40 PVC: Pipe sizes .75" through three-inch and fittings shall comply with ASTM Standard D1785. and shall be made of virgin PVC compound with a cell classification of 12454.

C. PVC (Polyvinyl Chloride) Four Inch or Larger: Pipe shall be John Manville "Blue Brute" or Robintech "White Knight" Class 150 minimum or approved equal conforming to all requirements of AWWA C900-75. No PVC fittings shall be used under any circumstances. Pipe shall be joined by means of a rubber ring bell joint which shall be integral and homogeneous part of pipe barrel.

All tracer wire shall be 10 AWG solid copper wire coated with 0.45 mils Type HMW - PE blue insulation. The wire shall meet all requirements of the latest version of ASTM D1351.

D. Fittings - All fittings shall be manufactured in accordance with AWWA C153 or latest revision. Fittings shall be mechanical joint or flanged.

All fittings shall have a pressure rating of 250 psi. Fittings four inches (4") through eight inches (8") shall be ductile iron with a minimum strength of 25,000 psi.

E. Gate Valves - All gate valves shall conform in all respects to latest AWWA Specifications and shall be American Darling or Mueller "O" - ring or M&H or approved equal.

Gate valves shall be vertical open-left of the non-rising stem type with mechanical joint ends and 2" square operating nut. Gate valves shall be iron body, resilient wedge, fully bronze mounted.
Gate valves shall be designed for the following pressures:

Valve Size Working Pressure Hydrostatic Test Pressure
All gate Valve up to 8" must have a minimum of 200 PSI working pressure and minimum 400 PSI Hydrostatic test.

F. Valve Boxes - Valve boxes shall be Christy G5 or approved equal. All installations shall utilize an 8" ADS single wall corrugated HDPE pipe riser. The riser will rest on the gate valve stuffing box and extend into the valve box. The cover shall have cast on the upper surface, in raised letters, the word "WATER."

G. Hydrants - Fire hydrants shall be of the compression type and shall be Mueller Centurion new and improved #A-421, American Darling 73, Dresser M & H #129, and AWWA C-502, or approved equal, designed for a minimum working pressure of 150 psi and a hydrostatic test pressure of 300 psi with the valve in both the open and closed position.
The hydrant valve opening shall be a minimum of 4½". Hydrants shall be equipped with two (2) 2½" hose nozzles and one (1) 4½" pumper nozzle. All 2½" nozzles shall have threads which are 3.112" x 8 threads per inch measured on the outside of the male diameter. The suction hose (4½") will be National Standard. All 4½" pumper nozzles shall have National Standard threads. Nozzles shall be bronze with cast iron caps secured thereto with suitable steel chain. All hydrants shall have bronze seating

The upper hydrant operating stem within the bonnet shall be sealed and lubricated by means of an oil or grease bath. The operating nut shall be National Standard pentagon-type measuring 1½" from point to flat. Hydrants shall be open left.
The hydrant shoe shall be 6" in size, of the mechanic joint type. Hydrants shall be of the "safety" type so that if the upper barrel is broken off, the hydrant valve will remain closed and reasonably tight. All fire hydrants shall be painted yellow.

All hydrants shall be furnished with barrel and stem extensions as required for the final field location. Nominal minimum bury will be 3½'.

II. CONSTRUCTION METHODS

A. General - Water mains shall be installed in strict accordance with plans and these specifications. Work shall be planned and arranged so that the existing service shall be interrupted to the least possible degree. Access to property along the route of proposed construction shall be maintained at all times. The Contractor or BLWC will give the property owners a 24-hour notice before cutting water off.

B. General Construction Safety

The Contractor and any subcontractors shall be responsible for the total compliance to all federal, state, and local ordinances, laws and regulations as it relates to safe construction practices and to protecting the employees and the public's general health to include providing by name(s) someone designated to be the "Competent Person" on the Job site.

The Contractor shall ensure that all Occupational and Health Administration (OSHA) regulations and standards are followed during all phases of the construction project.

The BLWC shall not be responsible for making the Contractor adhere to these OSHA regulations and standards. However, BLWC bring known violations or unsafe practices to the Contractor for immediate rectification.

C. Trench Excavation - Excavation shall be made to the lines and grades as shown on Madera County drawing number ST-28 attached thereto. The width of the trench shall not be more than is necessary for proper installation of the pipe. Depth of the trench shall, generally, be such as to provide a minimum depth of cover over the pipe of 3' below the finished grade of the street or ground.

Bell holes shall be hand dug at each joint to permit thorough making up of the joint. Bottom of the trench shall be shaped to support the pipe throughout its entire length. It shall be the responsibility of the Contractor to provide adequate bearing for all pipe lines laid in uncertain soil conditions or if the trench bottom should be softened by rain, flooding, or other causes, the unsuitable material shall be removed and replaced with suitable material properly shaped and tamped to grade. The Contractor shall, however, make efforts to prevent surface water from flowing into the trench. The Contractor shall remove any water which may accumulate in the trench by pumping or other approved means. The Contractor shall make every effort to prevent water and other materials from entering the pipe during construction. At the end of the day the line shall be plugged or capped and the trench filled in to protect the line. The use of timber or other material to support the pipe shall only be used in a temporary manner. If rock is encountered, the excavation shall be carried to such depth below the established grade as to provide clear space of not less than 6" between the rocks at any point along the line. This space shall be filled with suitable material or stabilizing material.

D. Pipe Laying - Shall be accomplished in accordance with the pipe manufacturer's published instructions. All pipe shall be installed by experienced, skilled workmen. Pipe shall be laid with straight and smooth lines and to the grades indicated on the plans, with all joints perfectly fitted. Changes in alignment or grade without fittings

shall be made uniformly with several joints, with deflection at joint not to exceed the recommendations of the pipe manufacturer.

E. Backfilling - After the pipe has been satisfactorily installed, the trench shall be backfilled with approved material free from large stones or clods in 6" layers, loose measurement and shall be thoroughly tamped and compacted with a rapid hitting mechanical tamper capable of exerting at least 185 lbs. /square foot of tamping area per blow. Other mechanical equipment may be used if approved by the BLWC Superintendent. The backfill material shall be moistened when necessary, in the opinion of the Superintendent, to obtain maximum compaction. Water settling or puddling shall not be permitted. The backfilling shall be done on each side of the pipe simultaneously to prevent possible displacement of the pipe. Any material not suitable for use in backfilling in the opinion of the Superintendent shall be removed and suitable material hauled in. After backfilling has been completed, the Contractor shall thoroughly clean the street of all dust and dirt by brooming and/or washing with water. Backfill within Madera County rights-of-way shall conform to Cal-Trans and Madera County specifications. In trenches within highway right-of-way, backfill shall be mechanically tamped and compacted in 6" layers for full depth of trench.

F. Water Main Crossing Sewer - Whenever it is necessary for a water main to cross over a sewer, the water main shall be laid at such an elevation that the bottom of the water main is at least eighteen inches (18") above the top of the sewer. If local conditions prevent an 18" vertical separation, then both the water main and sewer main shall be constructed with joints that are equivalent to water main standards for a distance of ten feet (10') on each side of the crossing.

G. Installation of Hydrants and Valves - Hydrants shall be set plumb as indicated on the plan with the pumper connection 18" above grade. The hydrant pipe connection shall utilize a Meg-a-lug Joint Restraint System. A minimum of 7 cubic feet of stone shall be placed around the hydrant base to insure drainage. The backfill around hydrants shall be thoroughly compacted to grade line. Hydrants and valves shall have the interior cleaned of all foreign matter before installation. Stuffing boxes shall be tightened and the hydrant or valve shall be inspected in both the open and closed position to see that all parts are in working condition. Normal hydrant installations shall be within and as near as possible to the right-of-way. Normal valve installation for hydrants will be no farther than ten feet (10') from the main line.

H. Valve Box Installation - Valve boxes shall be installed on each valve. The riser of the valve box shall completely enclose the valve operating nut and shall be seated on tamped backfill and shall rest on valve stuffing box assembly. When valve boxes are located in pavement, the box shall be adjusted to finished street grade. When valves are located out of pavement, the boxes shall be adjusted to finish grade.

I. Service Taps - All service taps will be done according to BLWC specifications as detailed in the attachment to this section. Any old services being reconnected will be brought up to BLWC specifications which includes, but is not limited to, the replacement of the service saddle, service line, corporation stop, meter stop, yoke, meter box, or Curb stop with riser.

Service taps will have to be made by boring or trenching from main line to the existing meter, existing curb stop or customer property line. Any disturbed pavement, curbs, sidewalks, etc., will be restored by the Contractor.

J. Hydrostatic Pressure Testing of Water Mains - Upon completion of water mains, the Contractor shall hydrostatically test between each main line valve. The Contractor shall furnish a suitable test pump, measuring device, materials, labor, equipment, etc., to perform the test to the satisfaction of the Superintendent.

The line shall be filled slowly, with care being taken to insure complete removal of air from the line. The contractor shall install any corporation stops which may be required for this purpose. After the line has been filled, each portion between valves shall be hydrostatically tested to 150 psi and maintained for a period of three (3) hours. Do not test against closed valves at pressures higher than the allowable seating pressures for individual valves. Leakage shall not exceed three (3) gallons per inch of diameter per mile of pipe. Any visible leakage shall be repaired to a water-tight condition. Defective materials disclosed by the test shall be replaced and the test repeated. Care will be taken to maintain the pipe in a reasonable sanitary condition during installation.

K. Disinfecting of Water Main - Before being chlorinated, the entire line shall be thoroughly flushed at a rate to produce a minimum flow of 2½' per second in all parts of the pipe, to remove mud and other foreign materials. The flushing shall be done after the pressure tests on the line are made. If necessary, the contractor shall furnish any tap necessary to produce the proper flow for flushing.
The line shall be chlorinated in accordance with AWWA standard C 601-54, except as may be specified otherwise. Chlorine may be applied by the following methods: Sodium hypochlorite or Calcium Hypochlorite and Water Mixture.
The chlorinating agent shall be applied at the beginning of the section adjacent to the feeder connection and shall be injected through a corporation cock, hydrant or other connection insuring treatment of the entire line.
Water shall be fed slowly into the new line with chlorine applied in amounts to produce a dosage of 50 PPM. Mains previously filled shall be treated to a concentrated dosage at intervals along the line and retained for a period of twenty-four (24) hours or more. A residual of not less than 10 PPM shall be produced in all parts of the line.
During the chlorinating process all valves and accessories shall be operated by the Contractor. After chlorination the water shall be flushed from the line at it's extremities until the replacement water test are equal chemically and bacteriologically to those of the permanent sources of supply. It shall be the responsibility of the BLWC to collect the samples and to have the test conducted by the approved laboratory, and to provide a certificate of same, prior to acceptance or new water main.

EFFECTIVE DATE OF SPECIFICATION: January 1, 2012