PC 8-27-15
#2

Julie Saylor <julie.saylor@edcgov.us>

(14 pages)

Fwd: Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) FEIR

1 message

Char Tim <charlene.tim@edcgov.us> Wed, Aug 26, 2015 at 3:46 PM
To: Julie Saylor <julie.saylor@edcgov.us>

-------- Forwarded message --------
From: **David Defanti** <david.defanti@edcgov.us>
Date: Wed, Aug 26, 2015 at 3:36 PM
Subject: Fwd: Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) FEIR
To: Char Tim <charlene.tim@edcgov.us>

Sent from my phone...please excuse any typos.

Begin forwarded message:

From: "Feliciano, Florigna G@DOT" <florigna.feliciano@dot.ca.gov>
To: "shawna.purvines@edcgov.us" <shawna.purvines@edcgov.us>
Cc: "Flournoy, Marlon A@DOT" <marlon.flournoy@dot.ca.gov>, "sscherzinger@edctc.org" <sscherzinger@edctc.org>, "david.defanti@edcgov.us" <david.defanti@edcgov.us>
Subject: Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) FEIR

Dear Ms. Purvines,

Please replace our previous comment letter from August 17, 2015 with the attached comment letter for the TGPA-ZOU FEIR.

Also, please let me know if you have any questions.

Best regards,

Florigna Nest Feliciano

--

Char Tim
Clerk of the Planning Commission

Assistant to Roger Trout
Development Services Division Director

County of El Dorado
Community Development Agency
Development Services Division
2850 Fairlane Court
Placerville, CA 95667
(530) 621-5351 / FAX (530) 642-0508
charlene.tim@edcgov.us

---

3 attachments

noname.html
2K

Caltrans_TGPA-FEIR Comment Letter.pdf
4183K

noname.html
1K

District 3 Division of Planning and Local Assistance

Office of Transportation Planning - South

2379 Gateway Oaks Dr., Suite 150, MS-19

Sacramento, CA 95833

Phone: 916.274.0639 or 530.741.5455

florigna.feliciano@dot.ca.gov

www.dot.ca.gov

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, STE 150 - MS 19
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 263-1796
TTY 711

Serious drought.
Help save water!

August 26, 2015

032015-ELD-0027
03-ELD-VAR/PM Various
SCH# 2012052074

Ms. Shawna Purvines
Long Range Planning
El Dorado County
2850 Fairlane Court, Building C
Placerville, CA 95672

Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) – Final Environmental Impact Report (FEIR)

Dear Ms. Purvines:

The California Department of Transportation (Caltrans) has reviewed the Final Environmental Impact Report (FEIR) for El Dorado County's Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU). Thank you for the opportunity to provide comments. We also appreciate the County meeting with us to discuss this project on April 1, 2015, and for its responses to our comment letter on the Partially Recirculated EIR (PRDEIR) submitted on May 5, 2015. This letter replaces the comments Caltrans District 3 Planning sent on August 17, 2015. Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this FEIR for impacts to the State Highway System in keeping with our mission, vision and goals for sustainability/livability/economy, and safety/health. We provide these comments consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl.

The project proposes amendments to existing policies and regulations and establishes new policies and regulations regarding land use and transportation within the unincorporated parts of El Dorado County. Several proposed policy changes associated with the project may influence future development throughout the County, including the consideration of increasing allowed densities in the residential component of a mixed use project on commercial land in conformance with Senate Bill (SB) 375 – the Sustainable Communities and Climate Protection Act of 2008.

Caltrans acknowledges that the FEIR addressed several of our comments and we appreciate the County's willingness to work with us to address our concerns. Most of the comments we had provided for the PDEIR were fully or partially addressed; however, there is one outstanding concern

as previously stated in our TGPA-ZOU-PRDEIR comment letter (see Attachment 1: Caltrans Comment letter dated May 5, 2015, and FEIR Chapter 9, Letter S-Recirc-3-7 for the County's response). Our concern is regarding the level of service (LOS) analysis for the future scenarios, which we believe underestimates future traffic conditions on US 50.

While the response to our comment addresses some of our concerns about Scenario 6 (Cumulative Conditions in 2035), Caltrans still disagrees with the future LOS on US 50 projected for Scenario 2 (Project 2035 Impact) and Scenario 5 (2035 Baseline). In Scenarios 2 and 5, the analysis in the FEIR suggests US 50 will operate at acceptable levels of service with 2035 land use build out and without any roadway improvements. Based on the expected number of residential units and locations of job centers within the region, we believe that land use build out in year 2035 without any roadway improvements will detrimentally effect travel on US 50, and we believe that roadway improvements, some of which are described in Scenario 6, are essential to maintaining acceptable levels of service on US 50.

We suggest this comment be addressed so that projected conditions on US 50 are fully and accurately disclosed.

Please provide our office with copies of any further actions regarding this project.

If you have any questions regarding these comments or require additional information, please contact Florigna Feliciano, Intergovernmental Review Coordinator at (916) 274-0635 or by email at florigna.feliciano@dot.ca.gov.

Sincerely,

MARLON FLOURNOY
Deputy District Director
Planning and Local Assistance

c: Scott Morgan, State Clearinghouse
Sharon Scherzinger, Executive Director, EDCTC

Attachment 1:

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY EDMUND G. BROWN Jr., Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 3 – SACRAMENTO AREA OFFICE
2379 GATEWAY OAKS DRIVE, STE 150 - MS 19
SACRAMENTO, CA 95833
PHONE (916) 274-0635
FAX (916) 263-1796
TTY 711

Serious drought.
Help save water!

May 5, 2015

032015-ELD-0008
03-ELD Various/PM Various
SCH#2012052074

Ms. Shawna Purvines
Long Range Planning
El Dorado County
2850 Fairlane Court, Building C
Placerville, CA 95672

Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) – Partially Recirculated Draft Environmental Impact Report (PRDEIR)

Dear Ms. Purvines:

Thank you for including the California Department of Transportation (Caltrans) in the review process for the County of El Dorado Targeted General Plan Amendment and Zoning Ordinance Update (TGPA-ZOU) PRDEIR. We also appreciate the County meeting with us to discuss this project on April 1, 2015. The project proposes amendments to existing policies and regulations and establishes new policies and regulations regarding land use and transportation within the unincorporated parts of El Dorado County. Several proposed policy changes associated with the project, including the consideration of increasing allowed densities in the residential component of a mixed use project on commercial land in conformance with Senate Bill (SB) 375 – the Sustainable Communities and Climate Protection Act of 2008 may influence future development throughout the County. The following comments, based on the PRDEIR, concern the analysis and implications of these changes, so that impacts to the State Highway System (SHS) are disclosed and adequately mitigated for, protecting interregional travel throughout the County. This letter replaces our previous letter from March 16, 2015 and Caltrans redacts the prior letter.

Caltrans' new mission, vision, and goals signal a modernization of our approach to California's transportation system. We review this local development project for impacts to the State Highway System in keeping with our mission, vision, and goals for sustainability/livability/economy, and safety/health. We provide these comments consistent with the State's smart mobility goals that support a vibrant economy, and build communities, not sprawl.

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Comments

- 3.9.1 Existing Conditions, Table 3.9-1 (Pages 3.9-5, 3.9-6) – Table 3.9-1 is missing the "20-Year Build Level of Service (LOS)" for Segment 6.

- 3.9.2 Environmental Impacts, Methods of Analysis, Table 3.9-3, Level of Service Typical Traffic Volumes (Page 3.9-28-3.9-29) – Table 3.9-3 is used to calculate the LOS values reported in Tables 3.9-13, 5.2, and 5.3 (page 3.9-58, 5-12, 5-14). Table 3.9-3 homogenizes Highway Capacity Manual (HCM) freeway segment inputs, such as truck percentages, peak hour factor, physical geometry, and terrain, which impact LOS calculations.

  The conclusions derived from using this methodology contradict the intent of the table. The project analysis attempts to make operational and design determinations (facility build-out design and significantly impacted locations) for the State Highway System (SHS) based on the build-out of the proposed project. See Table 3.9-3 note (page 3.9-29):

  > "Note: The planning thresholds shown in this table are provided for the purpose of assisting in the identification of locations where operational problems may exist and are based on information provided in the 2010 HCM and other industry sources. These values are not appropriate for making detailed or final determinations regarding operational or design considerations. Those determinations should only be made after a detailed operational analysis, consistent with current HCM procedures, and/or other design evaluations are completed."

  Caltrans suggests that the LOS calculations for US 50 reported in the PRDEIR be calculated using the Operational Analysis for Basic Freeway Segments.

- 3.9.2 Environmental Impacts, Methodology Selected for This Analysis (Page 3.9-31) – This section references the concurrence letter Caltrans provided to El Dorado County regarding the El Dorado County Travel Demand Model (EDCTDM) used for the project analysis:

  > The TDM used to model traffic in the DEIR was revised in response to comments received during review of the Draft EIR. The County received formal Caltrans concurrence on the TDM on September 22, 2014. In its letter, Caltrans states that the TDM conforms to the state-of-practice in travel demand modeling, meets overall traffic assignment validation standards suggested by Caltrans and the Federal Highways Administration, and is an appropriate tool for the County's long range planning purposes. The revised TDM was re-run for all of the scenarios with the updated network requested by Caltrans.

  Caltrans' concurrence letter solely addresses the base year model, thus only supports the results of the base year model. Caltrans did not comment on or review future/cumulative scenario (2035) TDMs, therefore the future scenario models used in this document do not have an associated concurrence letter from Caltrans. References to Caltrans' concurrence letter within the PRDEIR should be limited to the base year model only.

Caltrans suggests the following language be included in the FEIR to clarify the reference to the Caltrans' concurrence letter contained in the PRDEIR:

> Caltrans was not requested to concur with the County's growth forecast and/or model results stemming from the County's growth forecast, as local land use planning is outside of Caltrans' responsibility and authority.

Also, note that Caltrans' concurrence letter indicated that there are areas of the base year model where the traffic assignment outputs do not reflect existing conditions:

> While the EDCTDM as a whole is acceptable and meets validation standards, please keep in mind when used for future specific projects, a subarea validation will be necessary for approval of traffic impact studies. Additionally, some areas of the model may exceed validation standards and/or generate unexpected outputs, which will require further model improvements and post processing to achieve acceptable results.

In such cases, the TDM requires calibration and validation to generate verifiable results.

- 3.9.2 Environmental Impacts, Tables 3.9-8 (Page 3.9-39) and 3.9-12 (page 3.9-44) – Consistent with the 2014 US 50 CSMP/TCR, the minimum LOS for segments 5, 6, 9, 13 and 14 should be listed as LOS E.

- 3.9.2 Environmental Impacts, Project Impacts, Table 3.9-13 LOS Summary Table (Page 3.9-58) – The LOS values reported for the existing conditions scenario differ from expected values on US 50. For example, according to PeMS the westbound US 50 segment between El Dorado Hills Boulevard/Latrobe Road and the El Dorado/Sacramento County line, currently operates at LOS F during the AM peak hour due to the high density of vehicles on US 50 and the weaving/merging traffic from the El Dorado Hills Boulevard/Latrobe Road on-ramp. Table 3.9-13 indicates that this segment currently operates at LOS C. While the existing LOS of this segment may change slightly from day to day, reporting the existing LOS as C significantly underestimates the traffic at this location (as detailed below) and adversely impacts the reasonableness of the future scenario analysis. Caltrans recommends the existing LOS analysis for this segment, and any others with lower than expected LOS for US 50, be recalculated using more appropriate input volumes. Attachment 1 shows existing PeMS volumes (AM peak hour, Monday-Thursday, spring and fall of 2010 and 2012) for the westbound US 50 segment between El Dorado Hills Boulevard/Latrobe Road and the El Dorado/Sacramento County line. The data shows that the general purpose lane peak hour volume used in the PRDEIR of 2,240 vehicles per hour (vph) (Segment 2, existing conditions – AM peak hour) is significantly lower than the reported general purpose lane count peak hour volumes in PeMS. Of the 170 days of PeMS peak hour volumes data attached, the PRDEIR volume of 2,240 vph is the second lowest count volume (see attached table). Furthermore, the data for this segment show that the 2035 build-out projection general purpose lane peak hour volumes are lower than existing PeMS volumes. Additionally, Attachment 2 shows PeMS volumes from the westbound US 50 detector station used in the PRDEIR (E. of Scott Rd mainline station 316993, March 2010). The data shows that

the detector operated at 0 percent observed during the reported count times. This indicates that no vehicles were counted at this location and the listed volumes are estimates derived by PeMS. Caltrans recommends the County use a general purpose lane peak hour volume of 3,200 for this segment and recalculate the LOS for the existing conditions and all other scenarios. Caltrans would typically choose a higher volume for the peak hour analysis (30th to 200th highest hour annually), however in this case choosing a more representative volume (85th percentile) is more reasonable. Using the above mentioned 3,200 vph will result in an existing LOS D, which is appropriate for this analysis.

The LOS analysis for the future scenarios, particularly scenarios 2, 5, and 6 (2035 land use build-out), underestimates future traffic conditions on US 50. While most of the future LOS analysis will be corrected and acceptable once the existing volumes are adjusted to the recommended volumes above, the impact of the cumulative conditions in 2035 (Scenario 6) on US 50 is underestimated in this analysis. Table 3.9-13 indicates that this segment will operate at LOS D in scenarios 2 and 5, and LOS B in scenario 6. These LOS calculations imply that the 2035 travel demand on this segment will reduce to lower levels than current demand, even with an additional 15,949 residential units included in the 2035 build-out projections as shown in Table 3.9-6 (Scenarios 2 and 6). El Dorado County is a net exporter of commuters, according to 2011 US Census data used in the Western El Dorado County Short and Long Range Transit Plan, and similar commuting trends are expected to continue into the future given existing and future large job centers in Sacramento, Rancho Cordova, Folsom, and Roseville, as well as the limited planned parallel capacity due to development planned around said capacity.

- 5.1 Cumulative Impacts, Table 5.1 Cumulative Projects (Page 5-2) – On page 5-2 PRDEIR states:

  > The County is currently considering applications for the approval of five large residential developments proposed in the western portion of the county (i.e., Central El Dorado Hills Specific Plan, Dixon Ranch, Lime Rock Valley Specific Plan, San Stino, and Village of Marble Valley Specific Plan). These are not part of the project but are being considered in this cumulative impact analysis pursuant to CEQA case law's interpretation of the phrase 'probable future projects'... This cumulative impact analysis assumes approval takes these projects impacts into consideration solely in order to meet the intent of State CEQA Guidelines Section 15130 for a worst case scenario perspective.

  While the proposed developments referenced (in addition to the Folsom South of US 50 project), which include a total of 18,050 to 21,340 new residential units, are not part of the project, they are considered in the cumulative impact analysis.

  Caltrans acknowledges that these projects are not included in this project as it is a program-level EIR. However, given the projected significant cumulative impact of these projects (page 5-11), Caltrans may require that these developments be included in relevant project-level traffic impact studies provided by the County in support of development proposals. Furthermore, this analysis

may be a condition of encroachment permit approvals where an encroachment permit is necessary to comply with mitigation requirements.

Additionally, Caltrans requests that the County preserve an adequate amount of right-of-way to accommodate the ultimate design configuration of SHS interchanges impacted by the proposed developments included in the cumulative impact analysis.

- 5.1.10 Transportation and Traffic, Project Impacts, Table 5-3 Cumulative Significant Impacts on El Dorado County Roadway Segments (Page 5-14-5-26) – Bass Lake Road, south of US 50, is not included in Table 5.3 Cumulative Significant Impacts (super cumulative no project).

Please provide our office with copies of any further actions regarding this project. We would appreciate the opportunity to review and comment on any changes related to this project.

If you have any questions regarding these comments or require additional information, please contact Eileen Cunningham, Intergovernmental Review Coordinator, at (916) 274-0639 or by email at eileen.cunningham@dot.ca.gov.

Sincerely,

MARLON FLOURNOY
Deputy District Director
Planning and Local Assistance

c: Scott Morgan, State Clearinghouse

Ms. Purvines - Long Range Planning, El Dorado County
May 5, 2015
Page 6

Attachment 1: PeMS Peak Hour Counts

W. of Latrobe Mainline Station 316653
Spring/Fall 2010 and 2012 Volumes
7:00 am Monday-Thursday, No weekends or holidays
No HOV Lane Volumes
Sorted Highest to Lowest Volume

Hour	Flow (Veh/Hour)	% Observed
4/15/2010 7:00	3348	100
4/22/2010 7:00	3339	100
3/11/2010 7:00	3330	100
4/19/2010 7:00	3304	100
3/9/2010 7:00	3298	100
3/1/2010 7:00	3293	100
3/23/2010 7:00	3275	100
4/8/2010 7:00	3268	100
4/6/2010 7:00	3235	92
3/24/2010 7:00	3233	100
3/16/2010 7:00	3231	100
4/7/2010 7:00	3214	100
3/8/2010 7:00	3186	100
4/13/2010 7:00	3174	100
10/27/2010 7:00	3169	100
3/17/2010 7:00	3148	100
3/25/2010 7:00	3144	100
3/18/2010 7:00	3142	100
10/28/2010 7:00	3128	100
10/26/2010 7:00	3105	100
4/21/2010 7:00	3099	100
5/19/2010 7:00	3080	100
5/12/2010 7:00	3066	100
9/14/2010 7:00	3066	100
9/1/2010 7:00	3064	100
5/17/2010 7:00	3060	100
5/25/2010 7:00	3052	100
10/19/2010 7:00	3051	100
9/2/2010 7:00	3042	100
9/9/2010 7:00	3038	100

Hour	Flow (Veh/Hour)	% Observed
5/15/2012 7:00	3393	100
5/14/2012 7:00	3385	100
5/1/2012 7:00	3362	100
3/6/2012 7:00	3351	100
4/24/2012 7:00	3335	100
3/27/2012 7:00	3327	100
5/10/2012 7:00	3327	100
4/30/2012 7:00	3322	100
5/2/2012 7:00	3320	100
5/9/2012 7:00	3317	100
9/5/2012 7:00	3314	100
4/10/2012 7:00	3305	100
4/25/2012 7:00	3304	100
10/30/2012 7:00	3295	100
9/27/2012 7:00	3279	100
3/7/2012 7:00	3273	100
3/21/2012 7:00	3273	100
10/17/2012 7:00	3273	100
9/6/2012 7:00	3271	100
3/5/2012 7:00	3264	100
5/8/2012 7:00	3264	100
3/8/2012 7:00	3259	100
4/17/2012 7:00	3257	100
5/3/2012 7:00	3257	100
9/17/2012 7:00	3255	100
10/4/2012 7:00	3254	100
5/7/2012 7:00	3252	100
3/29/2012 7:00	3251	100
10/3/2012 7:00	3247	100
5/17/2012 7:00	3245	100

Hour	Flow (Veh/Hour)	% Observed
9/15/2010 7:00	3033	100
10/20/2010 7:00	3032	100
4/12/2010 7:00	3029	100
10/13/2010 7:00	3029	100
9/8/2010 7:00	3027	100
3/22/2010 7:00	3025	100
9/21/2010 7:00	3025	100
3/4/2010 7:00	3024	100
3/15/2010 7:00	3022	0
5/18/2010 7:00	3020	100
10/5/2010 7:00	3001	100
3/3/2010 7:00	2998	100
9/16/2010 7:00	2994	100
10/6/2010 7:00	2990	100
3/2/2010 7:00	2987	100
9/22/2010 7:00	2982	100
10/14/2010 7:00	2979	100
4/20/2010 7:00	2968	100
10/7/2010 7:00	2961	100
5/13/2010 7:00	2960	100
9/23/2010 7:00	2957	100
10/21/2010 7:00	2956	100
9/29/2010 7:00	2955	100
9/7/2010 7:00	2948	100
5/11/2010 7:00	2947	100
9/13/2010 7:00	2943	100
3/10/2010 7:00	2934	100
10/12/2010 7:00	2931	100
5/20/2010 7:00	2929	100
9/27/2010 7:00	2929	100
4/5/2010 7:00	2923	100
9/20/2010 7:00	2922	100
9/30/2010 7:00	2916	100
10/25/2010 7:00	2903	100
5/10/2010 7:00	2902	100
10/18/2010 7:00	2895	100

Hour	Flow (Veh/Hour)	% Observed
4/19/2012 7:00	3236	100
4/26/2012 7:00	3231	100
10/31/2012 7:00	3229	100
3/22/2012 7:00	3225	100
4/18/2012 7:00	3223	100
4/23/2012 7:00	3223	100
5/21/2012 7:00	3222	100
5/29/2012 7:00	3222	100
3/20/2012 7:00	3219	100
4/16/2012 7:00	3218	100
10/11/2012 7:00	3213	100
3/12/2012 7:00	3212	100
10/1/2012 7:00	3210	100
9/19/2012 7:00	3208	100
9/20/2012 7:00	3207	100
10/25/2012 7:00	3207	100
10/15/2012 7:00	3205	100
3/13/2012 7:00	3202	100
5/22/2012 7:00	3200	100
10/10/2012 7:00	3193	100
5/23/2012 7:00	3181	100
9/18/2012 7:00	3175	100
5/16/2012 7:00	3172	100
9/25/2012 7:00	3168	100
4/11/2012 7:00	3167	100
9/24/2012 7:00	3165	100
5/30/2012 7:00	3150	100
10/18/2012 7:00	3147	100
5/24/2012 7:00	3140	100
9/26/2012 7:00	3137	100
9/13/2012 7:00	3136	100
10/29/2012 7:00	3129	0
9/10/2012 7:00	3127	100
3/26/2012 7:00	3123	100
10/9/2012 7:00	3121	100
4/9/2012 7:00	3117	100

Ms. Purvines - Long Range Planning, El Dorado County
May 5, 2015
Page 8

Hour	Flow (Veh/Hour)	% Observed
10/4/2010 7:00	2886	100
5/26/2010 7:00	2875	100
5/24/2010 7:00	2849	33
5/27/2010 7:00	2794	100
5/5/2010 7:00	2784	100
5/4/2010 7:00	2762	100
4/29/2010 7:00	2749	100
9/28/2010 7:00	2739	100
4/28/2010 7:00	2724	100
4/1/2010 7:00	2723	100
4/27/2010 7:00	2717	100
3/30/2010 7:00	2707	100
3/29/2010 7:00	2704	100
4/26/2010 7:00	2578	100
5/3/2010 7:00	2568	100
4/14/2010 7:00	2500	100
3/31/2010 7:00	2347	100
5/6/2010 7:00	1670	96

Hour	Flow (Veh/Hour)	% Observed
3/1/2012 7:00	3107	100
3/15/2012 7:00	3104	100
3/19/2012 7:00	3103	100
10/16/2012 7:00	3103	100
10/2/2012 7:00	3087	100
9/12/2012 7:00	3074	100
5/31/2012 7:00	2988	100
9/11/2012 7:00	2974	100
9/4/2012 7:00	2972	100
10/22/2012 7:00	2967	100
10/24/2012 7:00	2960	100
3/14/2012 7:00	2953	100
10/23/2012 7:00	2942	100
4/3/2012 7:00	2904	100
4/12/2012 7:00	2881	100
3/28/2012 7:00	2842	100
4/4/2012 7:00	2811	100
4/5/2012 7:00	2809	100
4/2/2012 7:00	2798	100

Attachment 2: PeMS Peak Hour Counts

E. of Scott Mainline Station 316993
March 2010, 7:00 - 7:59 am, Monday-Friday
No weekends or holidays
No HOV Lane Volumes

Hour	Flow (Veh/Hour)	% Observed
3/1/2010 7:00	2765	0
3/2/2010 7:00	2561	0
3/3/2010 7:00	2598	0
3/4/2010 7:00	2794	0
3/5/2010 7:00	2522	0
3/8/2010 7:00	2753	0
3/9/2010 7:00	2791	0
3/10/2010 7:00	2730	0
3/11/2010 7:00	2727	0
3/12/2010 7:00	2466	0
3/15/2010 7:00	1100	0
3/16/2010 7:00	2679	0
3/17/2010 7:00	2652	0
3/18/2010 7:00	2653	0
3/19/2010 7:00	2396	0
3/22/2010 7:00	2971	0
3/23/2010 7:00	2734	0
3/24/2010 7:00	2682	0
3/25/2010 7:00	2770	0
3/26/2010 7:00	2689	0
3/29/2010 7:00	2354	0
3/30/2010 7:00	2859	0
3/31/2010 7:00	2714	0

 PC 8-27-15 #2

Julie Saylor <julie.saylor@edcgov.us>

(11 pages)

Fwd: Public Comment Letter for 8-27-15 Planning Commission Meeting

1 message

Planning Unknown <planning@edcgov.us> Wed, Aug 26, 2015 at 4:54 PM
To: Charlene Tim <charlene.tim@edcgov.us>, Julie Saylor <julie.saylor@edcgov.us>

Please see public comment email

-------- Forwarded message --------
From: **noreen@landlawbybarnes.com** <noreen@landlawbybarnes.com>
Date: Wed, Aug 26, 2015 at 4:43 PM
Subject: Public Comment Letter for 8-27-15 Planning Commission Meeting
To: "planning@edcgov.us" <planning@edcgov.us>

Attached is a Public Comment Letter for Agenda Item #11-0356 for the August 27, 2015 Planning Commission Meeting.

Noreen Patrignani, Legal Assistant

Brigit S. Barnes & Associates, Inc.

3262 Penryn Road, Suite 200

Loomis, CA 95650

PH: 916-660-9555

FX: 916-660-9554

EM: noreen@landlawbybarnes.com

Planning Commission.L01 re FEIR on TGPA-ZOU Project FINAL 08.26.15.pdf
889K

Brigit S. Barnes & Associates, Inc.
A Law Corporation

Brigit S. Barnes, Esq.
Annie R. Embree, Esq.*
*Of Counsel

Land Use and Environmental Paralegal
Jacnalyn Jarvis

Legal Assistants
Noreen Patrignani
Jenna Porter

3262 Penryn Road
Suite 200
Loomis, CA 95650
Phone (916) 660-9555
FAX (916) 660-9554
Website:
landlawbybarnes.com

August 26, 2015

Via Email and Regular Mail

El Dorado County Planning Commission
Rich Stewart, Commissioner
Gary Miller, Commissioner
Tom Heflin, Commissioner
Dave Pratt, Commissioner
Brian Shinault, Commissioner
2850 Fairlane Court
Placerville, CA 95667
Email: planning@edcgov.us

Re: Agenda Item #11-0356 – August 27, 2015 Hearing
Recommendation on TGPA-ZOU Approval and
Adoption/Certification of FEIR for TGPA-ZOU Project

Dear Planning Commissioners:

We strongly oppose any recommendation by this Commission to adopt the TGPA-ZOU or adopt and certify the Final Environmental Impact Report for the TGPA-ZOU project (the "Project"), for the following reasons: Staff proposes that the Planning Commission recommend approval of the EIR containing significant environmental deficiencies, through the mechanism of Findings and Statement of Overriding Considerations. However, the analysis in support of such Findings must be supported by evidence – analysis of facts or investigations undertaken by El Dorado County, which supports the analysis undertaken to support adoption of such Overrides. In the case of at least the Land Use Element, Economic Development Element and the Transportation Element, such hard evidence to support the adoption of Overrides is wholly lacking.

General Plan Policies:

A. Land Use Element

General Plan Policy 2.2.1.2 states that the purpose of the Commercial land use designation is to provide a full range of commercial retail, office, and service uses.

There does not appear to be an economic study or other financial analysis showing how the percentages of retail, office/employment centers and service uses allowed in the new and revised Commercial zones work together to support the General Plan's objectives of meeting the jobs-housing balance. (2004 General Plan Economic Development Element Objective 10.1.9.) Since there is no study regarding combining these commercial types, there is no way

to evaluate what the actual percentages of different type of commercial uses were used or how they would impact, either positively or negatively, the jobs housing balance issue; or, for example, how these combined uses would affect the traffic calculations for major thoroughfares.

The only data this office has been able to identify is a non-adopted Draft Framework (December 2014) prepared by the Board-Appointed Community and Economic Development Advisory Committee's ("CEDAC"), which was presented to the Board of Supervisors on March 31, 2015 ("CEDAC Report"). In the CEDAC Report, it states that the County is lagging significantly in the area of permanent, high-paying job growth ("high-paying" being defined as $25.60 or more per hour to achieve the County's median household income threshold). (CEDAC Report, at p. 1.) It further states that the focus of El Dorado County Economic Development will be on developing primary business sectors that can bring sustainable, skilled and highly-skilled, high wage jobs to the County, such as scientific, managerial, and technical sectors. (CEDAC Report, at p. 2.) It explains that employees in these sectors support demand for better, more varied and higher quality local goods and services and that the higher payroll taxes and spending would reduce the County's reliance on residential construction as its primary source of revenue.

The CEDAC Draft Framework seeks to attract and expand businesses that create employment opportunities that are commensurate with local housing costs. According to CEDAC, the average cost of a three-bedroom house is approximately $339,000[1], and a family of four would need to earn a household income of more than $83,710 to afford the average priced home in El Dorado County. However, both CEDAC and the County's 2013-2021 Housing Element ("HE", at p. 4-31), report that, as of February 2014, the area median family income for a four-person family in El Dorado County is less than that, at $76,100.
However, there is no way to determine from review either of the Land Use & Planning Element, or the proposed zoning revisions in Commercial [adding the new zoning districts of Main Street Commercial, Limited Commercial and Regional Commercial, renaming Planned Development Commercial to Community Commercial, and retaining General Commercial and Professional Office Commercial] how El Dorado County plans to increase the types of jobs necessary to keep residents in El Dorado County for work, and discourage the exodus of retail workers [who generally make substantially less than the CEDAC recommended $30.00/hr floor above] to Sacramento County where they live.

It appears, but there is no study to confirm or deny, that the County has homogenized all these types of Commercial uses, without evaluation of average wage/salaries, or where the anticipated employment pool would be drawn from. If the County has homogenized its

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assumptions to justify traffic modeling, and then uses the updated Zoning categories to justify Retail when other employment types are not requested by applicants, all assumptions supporting the Land Use Policies for Commercial, and the Jobs-Housing balances are skewed. For example, if the County approves retail and does not sufficiently plan for office/employment centers to attract these high-paying jobs, residents will continue to travel to where those jobs are in order to afford the high cost of housing in the West Slope, particularly in areas such as El Dorado Hills, whose average home price in 2011 was $459,288 (HE, at p. 4-37).

The following jobs-housing balance discussion, taken from the County's 2013-2021 Housing Element, illustrates the need for this type of analysis:

> Government Code Section 65890.1 states that: "State land use patterns should be encouraged to balance the location of employment-generating uses with residential uses so that employment-related commuting is minimized." Per state General Plan Guidelines, a jobs-to-housing ratio of 1.5:1 is considered "balanced." According to SACOG, the jobs-to-housing ratio for the West Slope in 2008 was 0.7 jobs for each housing unit, "indicating that many workers must leave the County to work." (HE, at p. 4-31.) Although there were two specific areas in the West Slope that met this degree of "balance" (West and South Placerville), the majority did not, and furthermore, the HE acknowledges that the jobs-to-housing ratios enumerated in Table HO13 of the HE do not consider the types and distribution of jobs in the County and the affordability of housing in each region. For example, El Dorado Hills has a concentration of high-end housing and a large export of workers from that same area. Although El Dorado Hills supplies 20 percent of the West Slope's jobs, they do not pay in the range to support habitation in the type of housing available in El Dorado Hills. The result is an increasing number of individuals living in more affordable areas that commute to work in El Dorado Hills. The mean travel time to work for El Dorado County residents is 29.4 minutes each way (1 hour commute daily). (U.S. Census Bureau 2011, HE at p. 4-32.)

We can find no policy or zoning change which seeks to either discourage development of high end housing until such time as the types of employment which supports the purchase of those homes can be established within El Dorado County; or conversely positively supports and encourages establishment of stable employment centers, thus supporting median income prices. Although the TGPA/ZOU's allowance of mixed residential/commercial provides a certain amount of more moderately-priced housing options for lower-wage earners, it does not appear to address the needs of attracting or retaining employment centers that offer higher-wage employment so residents

experience the same live-work advantage. For example, where is the analysis of the loss of Blue Cross to Rancho Cordova? What policies should be revised in this Amendment to affect a positive outcome of attracting such employers to El Dorado Hills or parts east? To the extent that no policies are proposed to be adopted in this GPA-ZOU which positively affect the dis-symmetry between jobs and housing, what long term traffic export calculations have been included in El Dorado County's traffic study anticipating the continued bleeding of retail workers living in Sacramento County, and El Dorado County residents driving to Sacramento County for work?

B. Economic Development Element

General Plan Policy 10.2.1.5 requires a public facilities and services financing plan that assures that cost burdens of any civic, public, and community facilities, infrastructure, ongoing services, including operations and maintenance are adequately financed to assure no net cost burden to existing residents. The Project proposes to change the mandatory "shall" be required to "may" be required. We object to this change. Approving this change, without modification would mean that no infrastructure improvements or upgrades would be required. There can certainly be circumstances in which a given project provides such net benefit that revisions to the standard infrastructure fee requirements can be modified. However, explicit criterion should be added to assure decision makers do not defer such improvements indefinitely, as is already the case with traffic circulation improvements as are identified in the Capital Improvements Plan—with improvements deferred from financing time frame to financing time frame so that mainline improvements have now been deferred out at least twenty years.

C. Transportation and Circulation Element

The stated objectives for the TGPA-ZOU Project did not list anything specific to traffic circulation or Measure Y issues (FEIR, at p. ES-8), although County prepared a response to Caltrans's prior objections to County's calculations of level of service.

The TGPA-ZOU Technical Memorandum No. 2 (at p. 8) prepared for the Project, County Staff states that the following proposed changes have been removed from the Project:

1. Proposed changes to General Plan Policies TC-Xd, TC-Xe and TC-Xf regarding definitions, thresholds and parameters of analysis for these transportation policies.

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This decision to defer analysis of proposed changes to General Plan Policies intended to support Measure Y violates the TGPA-ZOU's Objective ES.2.2, which reads: Add provisions to facilitate GP Implementation Measures. These decisions also expose El Dorado County to a challenge that it have failed to proceed in the matter required by law because El Dorado County failed to include information necessary for an adequate analysis of a significant environmental issue. As you are aware, there has been substantial controversy, both historically and recently, surrounding traffic issues, especially on and off Highway 50, raised by Measure Y supporters, and including recent strong written opposition from Caltrans over the traffic methodology, calculations, and analysis contained in the County's application of its Travel Demand Model to US 50 segments. Our research indicates that Kimley-Horn's application of this modeling is improper because it was never independently examined, accepted premises mandated by El Dorado County without independent examination, and was prepared in the face of Caltrans's opposition. We understand that in certain cases, for example the TIM Fee Program, El Dorado County transportation engineers have required traffic calculations which could not be confirmed by private engineers, and may have been inserted by County Transportation Department representatives in an attempt to evade Measure Y policies previously incorporated into the El Dorado County General Plan.

There is no question that the Measure Y policies regarding roadway standards and thresholds of analysis are extremely important to the people of El Dorado County, and therefore a claim that such analysis is not necessary as part of the FEIR to update GP policies and zoning criteria which obviously will affect traffic flows does not hold water.

The County must incorporate environmental considerations of the project conceptualization, design and planning at the earliest feasible time. Cal.Code 4 Regs tit. 14, §15004, subd. (b)(1) and (c). The project itself is the amendment to the General Plan which policies affecting updated land use categories necessarily will affect traffic impacts.

This office objected to proceeding with the TGPA circulation analysis in the face of Caltrans's objections on June 9, 2015. Our concerns are emphasized by Caltrans's March 16, 2015 direct challenge to County's Kimley-Horn analysis, and Caltrans's revised concerns as stated in its May 5, 2015 letter. Caltrans's May 5 letter has removed some of its strongest language, but the net effect of their comments remains the same.

The DEIR/RDEIR/FEIR Traffic Analysis contains the following flaws:

Some notable comments from Caltrans's March 16, 2015 and May 5, 2015 letters challenged the traffic assumptions for the Partial Recirculated DEIR for the County's TGPA/ZOU Project, and challenged the raw data, methodology, and conclusions for the TGPA/ZOU Project. Caltrans states that the LEVEL OF SERVICE standards are substantially under-calculated along Highway 50, and the report fails to include the projects already on the books, which will add up to 21,000 additional homes in its cumulative analysis. A list summarizing Caltrans's initial adverse comments of March 16, 2015, confirmed in its May 5, 2015 letter, are:

- TGPA/ZOU DEIR inaccurately claims that Caltrans, in its September 22, 2014 letter, formally concurred with the Travel Demand Model (TDM) used to model traffic for the DEIR, when Caltrans's earlier letter only addressed the base year (not future or cumulative) model; and said letter further pointed out that certain areas of the model do not meet validation standards and generate unexpected outputs. Caltrans states that this results in traffic assignment outputs that do not accurately reflect existing conditions and which should not be used verbatim.

- Caltrans rejects many of the LEVEL OF SERVICE values shown in the TGPA/ZOU DEIR for US 50, including the segment between the County line and El Dorado Hills Boulevard/Latrobe Road, which currently operates at LEVEL OF SERVICE F and will operate at LEVEL OF SERVICE F in the future, without significant capacity increasing or operational improvements and/or reduction in demand. Per Caltrans, the DEIR erroneously states that this segment currently operates at LEVEL OF SERVICE B and C, and will operate at LEVEL OF SERVICE D in the future. Caltrans believes that, even with capacity increases, achieving LEVEL OF SERVICE D in the future for this segment is highly infeasible. This is the segment which will be impacted the most by the Town Center West developers' plans to redevelop without public oversight.

- Caltrans disagrees with the "Method of Analysis" section, stating that the LEVEL OF SERVICE calculations for US 50 should be calculated using a more appropriate methodology and realistic existing and future volumes.

- Caltrans wants to ensure that all minimum acceptable LEVEL OF SERVICE for US 50 was "E" against which actual segments should be judged.

- Caltrans never received an opportunity to review cumulative (2035) Travel Demand Model scenarios or review growth forecasts.

- Caltrans objects to how El Dorado County's Travel Demand Model is being applied. "Caltrans does not agree with the "Method of Analysis" section. "Caltrans suggests that the LEVEL OF SERVICE calculations for US 50 reported in the PRDEIR be calculated using the Operational Analysis for Basic Freeway Segments."

- May 5, 2015 letter Bullet Point 5 underscores that El Dorado Hills Boulevard/Latrobe Road to the Sacramento County line currently operates at LEVEL OF SERVICE F during AM peak, especially the merge. Caltrans objects to County's Table 3.9-13, which indicates that this same segment operates at LEVEL OF SERVICE C: "reporting the existing LEVEL OF SERVICE as C significantly underestimates the traffic at this location . . . and adversely impacts the reasonableness of the future scenario analysis. Caltrans recommends the existing LEVEL OF SERVICE analysis for this segment, and any others with lower than expected LEVEL OF SERVICE for US 50, be recalculated using more appropriate input volumes". Caltrans also strongly recommends recalculation of future LEVEL OF SERVICE analysis for future build out scenarios, because their review indicates that El Dorado County is significantly "underestimating future traffic conditions on US 50", especially given that the future demand analysis actually concludes that the El Dorado Hills Blvd. segment will reduce to lower than current levels even with the additional 15,949 residential units currently planned.

As can be seen by Staff discussion of and comparison between the County's analysis of traffic impacts and Caltrans (see "Areas of Controversy/Issues to be Resolved, ES.5, FEIR at pp. ES20-22; see also Master Response #14 to Comments Received on DEIR/PRDEIR), County has already clearly indicated that it intended to analyze traffic impacts and Level of Service issues as part of this Analysis. Thus County cannot defer final review of road design and consequent mitigation needed to meet the Measure Y requirements by determining to incorporate such measures without review in this document in the Land Development Manual. Such deferral violates CEQA Guideline §15004(c) which mandates that the FEIR document and review should be coordinated to be completed concurrently, not consecutively. How can narrowing roads, as an example, have any effect except cause already existing traffic to be more congested? But if the County wants more narrow roads, it needs to evaluate those impacts now, not later during the administrative formulation of Land Development Manual.

Failure of providing mitigation required CEQA

Mitigation Measures must be fully enforceable through permit conditions, agreements or other measures. Public Resources Code section 21081.6 (b); 14 Cal Code Regs section 15091(d). Although El Dorado County could conceivable comply with these sections by incorporating mitigation to address the impacts of the proposed amendments to general plan policies, for example related to commercial designations, or expansion of traffic impacts for commercial development in agricultural areas, by adoption of plans for mitigation. But here, County has not included any mitigation measures related to traffic or circulation except the tautological statement "these policies (Measure Y) will be automatically extended indefinitely..." and a decrease in the number of allowed home occupation employees.

Where an agency fails to adopt any type of enforceable mitigation, as here, such failure to provide for mitigation for the increases in commercial uses, as an example, violates CEQA. Federation of Hillside & Canyon Ass's v. City of Los Angeles (2000) 83 Cal.App.4th 1252. A project based on an EIR, such as this one, must be adopted at the time of final project approval. 14 Cal.Code Regs. Section 15097(a). Measure Y deals with certain types of traffic improvements and programs over a certain threshold. But County has deferred analysis completely of the impacts of specific changes, except to acknowledge the level of public concern with traffic, by preparing its response to objections to its methodology as referenced by Caltrans. Thus, County should defer final review and approval of the TGPA-ZOU until the Major 5 Year Update to the County's Capital Improvement Program & Traffic Impact Mitigation Fee Program and Land Development Manual/Design Standards Manual Projects are completed, and mitigation proposed, so that all analysis is submitted at the same time.

Other Issues

Separate and distinct from Policy modifications which will be reviewed as part of the Land Development Manual Project, we note the following distinct issues which must be addressed because they, like the County's failure to support the policies advocated, result in failure of the FEIR as an adequate disclosure document:

1. Contrary to General Plan Policy, El Dorado County's Traffic Analysis does not examine actual traffic either at the intersections or critical portions of the I-50 Interchange. County now takes the position because no direct development will result, that analysis of all intersections is not warranted. O-Recirc-1-75 [9-232]. Such a decision makes no sense given the lengthy reasoning submitted (see "Areas of Controversy/Issues to be Resolved, ES.5, FEIR at pp. ES20-22; see also Master Response #14 to Comments Received on DEIR/PRDEIR), whereby County argues strenuously that its analysis is more complete, and better analyzed than that of Caltrans, and should therefore be adopted.

2. Similarly for HOV and Auxiliary lanes, O-Recirc-1-78 states: "General Purpose Lane capacities are summed with special purpose lane capacities (e.g., auxiliary lanes, HOV lanes, truck climbing lanes etc.) to reflect a given roadway segments total capacity for vehicle throughput." But this gives an artificially optimistic view of LOS since the general purpose lanes may be over capacity and the HOV/AUX lanes are running at LOS A or B. Caltrans disagrees with the County methodology of combining general purpose lanes with AUX/HOV lanes. The summarization technique is misleading and fails to apprise the public of actual congestion, which is the purpose of the FEIR. El Dorado County has no excuse for this failure to use regularly adopted data. El Dorado County DOT already collects directional numbers, so they should use this data. Caltrans complained about this calculation methodology in its September 25, 2013 letter. El Dorado County cannot avoid providing these calculations because the actual raw data have been provided by Caltrans to allow El Dorado County to make the calculations. Failure to include this data skews the analysis presented to decision makers, who generally rely directly on staff's calculation, to support the staff driven conclusions that regional LOS is generally "C" instead of "D" or "F" on various segments.

3. Critical road segments have not been analyzed, such as the segment of Latrobe Road between Town Center and the freeway. This segment is frequently LOS F even with the new improvements.

4. Additionally, County neglects to analyze the cumulative impact of the known and proposed development within our county. O-Recirc-1-68 and O-Recirc-1-69 demonstrate that County has not analyzed the cumulative impact of proposed developments (Central EDH, Dixon Ranch, San Stino, Marble Valley, Saratoga Estates, etc.) Elsewhere in the FEIR, they admit that these cumulative impacts must be analyzed.

In conclusion, County should defer final review and approval of the TGPA-ZOU until the Major 5 Year Update to the County's Capital Improvement Program & Traffic Impact Mitigation Fee Program and Land Development Manual/Design Standards Manual Projects are completed, so that all analysis is considered by the Commission at one time.

Sincerely,

Brigit S. Barnes

 PC 8-27-15 #2

Julie Saylor <julie.saylor@edcgov.us>

(10 pages)

Fwd: Public Comment Letter for 8-27-15 Planning Commission Meeting

1 message

Planning Unknown <planning@edcgov.us> Wed, Aug 26, 2015 at 4:54 PM
To: Charlene Tim <charlene.tim@edcgov.us>, Julie Saylor <julie.saylor@edcgov.us>

Please see public comment email.

-------- Forwarded message --------
From: **jporter@landlawbybarnes.com** <jporter@landlawbybarnes.com>
Date: Wed, Aug 26, 2015 at 4:45 PM
Subject: Public Comment Letter for 8-27-15 Planning Commission Meeting
To: "planning@edcgov.us" <planning@edcgov.us>

Attached is a public comment letter for the 8-27-15 Planning Commission Meeting.

Jenna Porter

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3262 Penryn Rd, Suite 200
Loomis, CA 95650

Telephone: 916-660-9555

Facsimile: 916-660-9554
Email: jporter@landlawbybarnes.com

Planning Commission.L01 re FEIR on TGPA-ZOU Project FINAL 08.26.15.pdf
889K

11-0356 Public Comment
PC Rcvd 08-26-15 to 08-27-15

Brigit S. Barnes & Associates, Inc.
A Law Corporation

Brigit S. Barnes, Esq.
Annie R. Embree, Esq.
Of Counsel

Land Use and Environmental Paralegal
Jaenalyn Jarvis

Legal Assistants
Noreen Patrignani
Jenna Porter

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Suite 200
Loomis, CA 95650
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3. Proposed changes to General Plan Policy 5.1.2.2 and Table 5-1 regarding minimum level of service standards and the consideration of moving Table TC-2 (TC-Xd) to another document.

In the TGPA-ZOU Technical Memorandum No. 2 (at p. 8) prepared for the Project, County Staff states that the foregoing proposed changes have been removed from the Project for now and are to instead be included in either: (1) the Major 5 Year Update to the County's Capital Improvement Program & Traffic Impact Mitigation Fee Program Project; or (2) the Land Development Manual/Design Standards Manual Project. It is our further understanding from County Staff that the impacts from the following proposed changes will be analyzed in the respective environmental documents prepared for Projects (1) and (2) named above since they are no longer included, nor therefore analyzed, in the TGPA-ZOU Project.

This decision to defer analysis of proposed changes to General Plan Policies intended to support Measure Y violates the TGPA-ZOU's Objective ES.2.2, which reads: Add provisions to facilitate GP Implementation Measures. These decisions also expose El Dorado County to a challenge that it have failed to proceed in the matter required by law because El Dorado County failed to include information necessary for an adequate analysis of a significant environmental issue. As you are aware, there has been substantial controversy, both historically and recently, surrounding traffic issues, especially on and off Highway 50, raised by Measure Y supporters, and including recent strong written opposition from Caltrans over the traffic methodology, calculations, and analysis contained in the County's application of its Travel Demand Model to US 50 segments. Our research indicates that Kimley-Horn's application of this modeling is improper because it was never independently examined, accepted premises mandated by El Dorado County without independent examination, and was prepared in the face of Caltrans's opposition. We understand that in certain cases, for example the TIM Fee Program, El Dorado County transportation engineers have required traffic calculations which could not be confirmed by private engineers, and may have been inserted by County Transportation Department representatives in an attempt to evade Measure Y policies previously incorporated into the El Dorado County General Plan.

There is no question that the Measure Y policies regarding roadway standards and thresholds of analysis are extremely important to the people of El Dorado County, and therefore a claim that such analysis is not necessary as part of the FEIR to update GP policies and zoning criteria which obviously will affect traffic flows does not hold water.

The County must incorporate environmental considerations of the project conceptualization, design and planning at the earliest feasible time. Cal.Code 4 Regs tit. 14, §15004, subd. (b)(1) and (c). The project itself is the amendment to the General Plan which policies affecting updated land use categories necessarily will affect traffic impacts.

This office objected to proceeding with the TGPA circulation analysis in the face of Caltrans's objections on June 9, 2015. Our concerns are emphasized by Caltrans's March 16, 2015 direct challenge to County's Kimley-Horn analysis, and Caltrans's revised concerns as stated in its May 5, 2015 letter. Caltrans's May 5 letter has removed some of its strongest language, but the net effect of their comments remains the same.

The DEIR/RDEIR/FEIR Traffic Analysis contains the following flaws:

Some notable comments from Caltrans's March 16, 2015 and May 5, 2015 letters challenged the traffic assumptions for the Partial Recirculated DEIR for the County's TGPA/ZOU Project, and challenged the raw data, methodology, and conclusions for the TGPA/ZOU Project. Caltrans states that the LEVEL OF SERVICE standards are substantially under-calculated along Highway 50, and the report fails to include the projects already on the books, which will add up to 21,000 additional homes in its cumulative analysis. A list summarizing Caltrans's initial adverse comments of March 16, 2015, confirmed in its May 5, 2015 letter, are:

- TGPA/ZOU DEIR inaccurately claims that Caltrans, in its September 22, 2014 letter, formally concurred with the Travel Demand Model (TDM) used to model traffic for the DEIR, when Caltrans's earlier letter only addressed the base year (not future or cumulative) model; and said letter further pointed out that certain areas of the model do not meet validation standards and generate unexpected outputs. Caltrans states that this results in traffic assignment outputs that do not accurately reflect existing conditions and which should not be used verbatim.

- Caltrans rejects many of the LEVEL OF SERVICE values shown in the TGPA/ZOU DEIR for US 50, including the segment between the County line and El Dorado Hills Boulevard/Latrobe Road, which currently operates at LEVEL OF SERVICE F and will operate at LEVEL OF SERVICE F in the future, without significant capacity increasing or operational improvements and/or reduction in demand. Per Caltrans, the DEIR erroneously states that this segment currently operates at LEVEL OF SERVICE B and C, and will operate at LEVEL OF SERVICE D in the future. Caltrans believes that, even with capacity increases, achieving LEVEL OF SERVICE D in the future for this segment is highly infeasible. This is the segment which will be impacted the most by the Town Center West developers' plans to redevelop without public oversight.

- Caltrans disagrees with the "Method of Analysis" section, stating that the LEVEL OF SERVICE calculations for US 50 should be calculated using a more appropriate methodology and realistic existing and future volumes.

- Caltrans wants to ensure that all minimum acceptable LEVEL OF SERVICE for US 50 was "E" against which actual segments should be judged.

- Caltrans never received an opportunity to review cumulative (2035) Travel Demand Model scenarios or review growth forecasts.

- Caltrans objects to how El Dorado County's Travel Demand Model is being applied. "Caltrans does not agree with the "Method of Analysis" section. "Caltrans suggests that the LEVEL OF SERVICE calculations for US 50 reported in the PRDEIR be calculated using the Operational Analysis for Basic Freeway Segments."

- May 5, 2015 letter Bullet Point 5 underscores that El Dorado Hills Boulevard/Latrobe Road to the Sacramento County line currently operates at LEVEL OF SERVICE F during AM peak, especially the merge. Caltrans objects to County's Table 3.9-13, which indicates that this same segment operates at LEVEL OF SERVICE C: "reporting the existing LEVEL OF SERVICE as C significantly underestimates the traffic at this location . . . and adversely impacts the reasonableness of the future scenario analysis. Caltrans recommends the existing LEVEL OF SERVICE analysis for this segment, and any others with lower than expected LEVEL OF SERVICE for US 50, be recalculated using more appropriate input volumes". Caltrans also strongly recommends recalculation of future LEVEL OF SERVICE analysis for future build out scenarios, because their review indicates that El Dorado County is significantly "underestimating future traffic conditions on US 50", especially given that the future demand analysis actually concludes that the El Dorado Hills Blvd. segment will reduce to lower than current levels even with the additional 15,949 residential units currently planned.

As can be seen by Staff discussion of and comparison between the County's analysis of traffic impacts and Caltrans (see "Areas of Controversy/Issues to be Resolved, ES.5, FEIR at pp. ES20-22; see also Master Response #14 to Comments Received on DEIR/PRDEIR), County has already clearly indicated that it intended to analyze traffic impacts and Level of Service issues as part of this Analysis. Thus County cannot defer final review of road design and consequent mitigation needed to meet the Measure Y requirements by determining to incorporate such measures without review in this document in the Land Development Manual. Such deferral violates CEQA Guideline §15004(c) which mandates that the FEIR document and review should be coordinated to be completed concurrently, not consecutively. How can narrowing roads, as an example, have any effect except cause already existing traffic to be more congested? But if the County wants more narrow roads, it needs to evaluate those impacts now, not later during the administrative formulation of Land Development Manual.

Failure of providing mitigation required CEQA

Mitigation Measures must be fully enforceable through permit conditions, agreements or other measures. Public Resources Code section 21081.6 (b); 14 Cal Code Regs section 15091(d). Although El Dorado County could conceivable comply with these sections by incorporating mitigation to address the impacts of the proposed amendments to general plan policies, for example related to commercial designations, or expansion of traffic impacts for commercial development in agricultural areas, by adoption of plans for mitigation. But here, County has not included any mitigation measures related to traffic or circulation except the tautological statement "these policies (Measure Y) will be automatically extended indefinitely..." and a decrease in the number of allowed home occupation employees.

Where an agency fails to adopt any type of enforceable mitigation, as here, such failure to provide for mitigation for the increases in commercial uses, as an example, violates CEQA. Federation of Hillside & Canyon Ass's v. City of Los Angeles (2000) 83 Cal.App.4th 1252. A project based on an EIR, such as this one, must be adopted at the time of final project approval. 14 Cal.Code Regs. Section 15097(a). Measure Y deals with certain types of traffic improvements and programs over a certain threshold. But County has deferred analysis completely of the impacts of specific changes, except to acknowledge the level of public concern with traffic, by preparing its response to objections to its methodology as referenced by Caltrans. Thus, County should defer final review and approval of the TGPA-ZOU until the Major 5 Year Update to the County's Capital Improvement Program & Traffic Impact Mitigation Fee Program and Land Development Manual/Design Standards Manual Projects are completed, and mitigation proposed, so that all analysis is submitted at the same time.

Other Issues

Separate and distinct from Policy modifications which will be reviewed as part of the Land Development Manual Project, we note the following distinct issues which must be addressed because they, like the County's failure to support the policies advocated, result in failure of the FEIR as an adequate disclosure document:

1. Contrary to General Plan Policy, El Dorado County's Traffic Analysis does not examine actual traffic either at the intersections or critical portions of the I-50 Interchange. County now takes the position because no direct development will result, that analysis of all intersections is not warranted. O-Recirc-1-75 [9-232]. Such a decision makes no sense given the lengthy reasoning submitted (see "Areas of Controversy/Issues to be Resolved, ES.5, FEIR at pp. ES20-22; see also Master Response #14 to Comments Received on DEIR/PRDEIR), whereby County argues strenuously that its analysis is more complete, and better analyzed than that of Caltrans, and should therefore be adopted.

2. Similarly for HOV and Auxiliary lanes, O-Recirc-1-78 states: "General Purpose Lane capacities are summed with special purpose lane capacities (e.g., auxiliary lanes, HOV lanes, truck climbing lanes etc.) to reflect a given roadway segments total capacity for vehicle throughput." But this gives an artificially optimistic view of LOS since the general purpose lanes may be over capacity and the HOV/AUX lanes are running at LOS A or B. Caltrans disagrees with the County methodology of combining general purpose lanes with AUX/HOV lanes. The summarization technique is misleading and fails to apprise the public of actual congestion, which is the purpose of the FEIR. El Dorado County has no excuse for this failure to use regularly adopted data. El Dorado County DOT already collects directional numbers, so they should use this data. Caltrans complained about this calculation methodology in its September 25, 2013 letter. El Dorado County cannot avoid providing these calculations because the actual raw data have been provided by Caltrans to allow El Dorado County to make the calculations. Failure to include this data skews the analysis presented to decision makers, who generally rely directly on staff's calculation, to support the staff driven conclusions that regional LOS is generally "C" instead of "D" or "F" on various segments.

3. Critical road segments have not been analyzed, such as the segment of Latrobe Road between Town Center and the freeway. This segment is frequently LOS F even with the new improvements.

4. Additionally, County neglects to analyze the cumulative impact of the known and proposed development within our county. O-Recirc-1-68 and O-Recirc-1-69 demonstrate that County has not analyzed the cumulative impact of proposed developments (Central EDH, Dixon Ranch, San Stino, Marble Valley, Saratoga Estates, etc.) Elsewhere in the FEIR, they admit that these cumulative impacts must be analyzed.

In conclusion, County should defer final review and approval of the TGPA-ZOU until the Major 5 Year Update to the County's Capital Improvement Program & Traffic Impact Mitigation Fee Program and Land Development Manual/Design Standards Manual Projects are completed, so that all analysis is considered by the Commission at one time.

Sincerely,

Brigit S. Barnes

PC 8/27/15 #2

Charlene Tim <charlene.tim@edcgov.us>

(99 pages)

TGPA/ZOU on Agenda for 8-27-15

Tom <tomi@volcano.net> Wed, Aug 26, 2015 at 10:17 PM
To: rich.stewart@edcgov.us, gary.miller@edcgov.us, tom.heflin@edcgov.us, dave.pratt@edcgov.us, brian.shinault@edcgov.us
Cc: charlene.tim@edcgov.us

Dear Commissioners,

My name is Tom Infusino, and I am writing to you on behalf of Rural Communities United. RCU is a group with members from communities all over El Dorado County who wish to preserve the character of their communities. We will be addressing you tomorrow regarding the TGPA/ZOU and its EIR.

Attached please find my assessment of the flaws in some of the response to public comments on the DEIR. Other members of RCU will also be providing their assessments of flawed responses to other comments on the DEIR and RDEIR. Also attached are my assessment of flaws in the draft finding of facts and the draft statement of overriding considerations. We encourage you to recommend to the Board of Supervisors that they direct staff to correct the flawed EIR, the flawed findings, and the flawed statement of overriding considerations.

Also attached are letters submitted in response to the NOP for the changes to the biological resources policies. These letters suggest the problem with not properly considering the cumulative impacts of the TGPA/ZOU and the changes to the biological resources policies in the TGPA/ZOU EIR.

In addition, we would like to incorporate by reference into the TGPA/ZOU record of proceedings the Dixon Ranch EIR, the San Stino NOP, and the applications for Lime Rock, Marble Valley, and the Central El Dorado Hills Specific Plan; that are on file in your Planning Department. We do so because the cumulative impact analyses in the TGPA/ZOU EIR do not consistently include the impacts of these foreseeable projects.

Finally, we would like to incorporate by reference into the TGPA/ZOU record of proceedings the court decision setting aside the 1996 General Plan, the court decision discharging the writ for the 2004 General Plan, and the case settlement regarding the 2004 General Plan. We do so to demonstrating that the TGPA/ZOU is eliminating from the 2004 General Plan the mitigation measures relied upon by the court as the factual basis for discharging the writ. We attach to this email a summary exhibit displaying similar facts.

Sincerely,

Tom Infusino

7 attachments

- **Flaws in Draft Finding of Facts.docx**
  23K
- **SOC unsuported - Infusino 8-27-15.docx**
  19K
- **Inadequate Responses_to_Comments TGPA-ZOU Tom Infusino 8-26-15.xls**
  40K
- **CNPS CSNC comments on bio resources amendment 8-17-15.pdf**
  2702K
- **Langley_NOP Comments Aug 17 2015 (00000002) bio.pdf**
  1876K
- **NOP Comments_Bio Policies_8 17 15 (00000002) EVD.pdf**
  793K
- **2004 GP v. TGPA ZOU 4 29 15 Handout_final_ Version 4 29 15.pdf**
  751K

Flaws in Draft Finding of Facts

By Tom Infusino, for Rural Communities United

As with our review of the Statement of Overriding Considerations, we note that the Findings of Fact are long on conclusions and short on references to evidence in the record. The Planning Commission should direct staff to fix the flaws in the findings noted below.

P. 9 "These findings satisfy the requirements of Sections 15091, 15092, and 15093 of the CEQA Guidelines."

Below we point out why this is not the case.

P. 9 "In accordance with State CEQA Guidelines Section 15126.6, the Final EIR contains a comparative impact assessment of three potentially feasible alternatives to the TGPA/ZOU Project, including the No-Project alternative."

As explained in our comments on the DEIR, the alternatives analysis does not conform to CEQA.

P. 11 "In addition, Alternative #1 would prevent the County from complying with the provisions of its adopted General Plan."

As explained in our comments on the Statement of Overriding Considerations (SOC), the ZOU failed to achieve many of the purpose of the general plan provisions which it alleges to implement.

P.11 (See also p. 83): "This alternative, because it can be implemented in a number of different combinations, actually represents multiple alternatives for consideration by the Board of Supervisors.

Actually this is dozens of different alternatives. However, it is not designed to reduce the impacts of the project while still meeting most of its objectives. There was no effort to design such an alternative, though there are many ways to do so.

For example, there is no absolute need to allow development on 30% or greater slopes throughout the entire county. It could be limited to community regions, or community regions and rural centers. Or, it could be precluded in forested areas where fire response times exceed 10 minutes. These would provide for it are indicated in the General Plan, but in areas where the impacts would be less.

Similarly, there are ways to limit the intensity of Ranch Marketing activities by requiring some separation of activities; reasonable limits on the number and size of special events, restricting groundwater use, etc. Again, the uses could have been designed to meet the objectives of the General Plan with much less damage.

Furthermore, more common sense limitations on the types of home businesses, and some limits on the concentration of home businesses, and limits or targets on the number allowed over the next ten years of general plan implementation, could have allowed the use as indicated in the 2004 General Plan, but placed some reasonable limits to protect the environment.

Finally, some common sense fire protection standards, and limitations or targets on the number of recreational, forest lodging and industrial enterprises to be permitted in the forest over the next ten years could have allowed the uses as indicated in the 2004 General Plan, but placed some reasonable limits to protect the environment.

The "in or out" nature of Alternative 2 makes it a useless for informing the decisionmakers or the public about their real options.

P.11-12 "Deleting the amendment to Policy 7.1.2.1 and the adoption of ordinance section 17.30.060 would obstruct the TGPA/ZOU Project objective to "[e]ncourage and support the development of housing affordable to the moderate income earner."

The record as a whole indicates that hillside development actually increases development and costs and is unlikely to result in affordable housing.

P. 12 "Proposed Ordinance section 17.40.160.F and Mitigation Measures TRA-2 and LU-5 will ensure that home occupations will be compatible with adjacent and surrounding properties."

The record as a whole does not support the finding that the ZOU will ensure that home occupations will be compatible with adjacent uses.

P. 26 "Changes or alterations have been required in, or incorporated into, such project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. The mitigation measures and the reasons why they substantially lessen the environmental effect is described below."

The record as a whole does not support the finding that the County has adopted mitigation measures in a fashion likely to effectively reduce impacts.

P. 26 "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report.

> The record as a whole does not support the finding that the County has properly rejected feasible mitigation measures

P. 28 (See also p. 53): "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report."

> There are a number of feasible mitigation measures to stem the adverse cumulative impacts of agricultural land conversion. The TGPA/ZOU could have included new programs to allow local ranchers to secure oak woodland mitigation funds or carbon sequestration credits. It could have the county participate in more state and federal funding mechanisms for purchasing conservation easements. It could have established new agricultural land conversion mitigation standards. None of these were explored.

PP. 29-30 (See also pp. 56-57): "Changes or alterations have been required in, or incorporated into, such project which avoid or substantially lessen the significant environmental effect as identified in the Final EIR. The mitigation measures and the reasons why they substantially lessen the environmental effect is described below.

"Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report."

> Again, the air quality attainment plans for metropolitan areas are filled with air pollution reduction measures that are not in place in El Dorado County, but could substantially reduce the air pollution emissions. Many of these are in the control of the County, such as cleaner county vehicle fleets, public transit passes for employees, etc. Others are within the authority of the County Air Pollution Control District, and should have been recommended to them for adoption to offset the cumulative air pollution impacts.

P. 38 "Avoidance of this impact is infeasible for legal reasons. Government Code Section 65301 requires the El Dorado County Board of Supervisors to "adopt a comprehensive, long-term general plan for the physical development of the county … and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning." The General Plan, as amended by the TGPA, provides for the long-term development of the county. Government Code Section 65580, et seq requires the General Plan to "identify adequate sites for housing" and otherwise plan for sufficient development to meet the county's share of the regional housing need. This requires the County to authorize future development to occur. Government Code

Section 65860 requires that the Zoning Ordinance be consistent with the General Plan and further provides that the "various land uses authorized by the ordinance are compatible with the objectives, policies, general land uses, and programs specified in the plan." The ZOU is being adopted to achieve this consistency."

> There has been no showing that the amount of development in the 2004 General Plan is required to meet regional housing needs.
>
> Furthermore, as evidenced by the TGPA, there is no need to stand pat on the provisions of the 2004 General Plan, when further amendment could reduce the adverse impacts of achieving zone conformity. The County argues that to do so would allow the zoning ordinance tail to wag the general plan dog. However, the County policy for achieving development project consistency with the general plan allows for amendment to the general plan. Thus, the County allows even lower level projects to wag the general plan dog, regardless of their contribution to environmental impacts or mitigation.
>
> Finally, with regard to the traffic impacts discussed in this context, the record as a whole indicates that the cumulative impacts of 2004 General Plan implementation and TGPA/ZOU will be contrary to maintaining the level of service standards in the 2004 General Plan.

P. 39 (See also page 95): "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report."

> With respect to groundwater supply, the County improperly rejected the suggestion for a groundwater management plan to limit groundwater dependent development in areas where groundwater is known to be scarce or unreliable. This would have the added benefit of protecting groundwater dependent ranches by reducing the likelihood that their water supply would be dried up by non-agricultural uses. There was no showing that this process would prevent the County from meeting its housing requirements. The excuse was that it would cost too much. However, communities all over California will be preparing such plans. Many are applying for State funds from Prop. 1 to fund these efforts.

P. 45. "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report."

> At issue here are impacts on scenic resources along scenic Highways 50 and 89 in El Dorado County from new development of resorts and retreat centers. These roads are in a heavily forested area of El Dorado County. Yet there was no effort to require visual

screening of the new development, even though it would be most feasible in this area of the County. Again, it isn't that feasible mitigation is unavailable, it is that the County does not even consider it.

P. 46 "Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the environmental impact report."

This is in the context of scenic impacts associated with development on slopes over 30%. Again, the County only considered limiting this impact by avoiding harm to habitat. The County could have implemented the 2004 General Plan by allowing this only in Community Regions and Rural Centers. Or by not allowing it on forested parcels more than 10 minutes from a fire station. There is no showing that such mitigation would conflict too sharply with the project objectives. The County fails to meet its obligation to adopt feasible mitigation.

P. 58: "By law, the Housing Element is required to accommodate the county's projected housing needs (Government Code Section 65860, et seq.). This precludes any attempt to limit population growth in the county."

First, this is not an accurate statement of the law. Housing limitations based upon resource constraints are not illegal, even if they result in limiting population growth. California's housing law seeks to provide an affordable, safe and healthy home for all Californians. Such a home has a safe and reliable water supply, is connected to job and service centers by efficient transportation, is sufficiently protected from fire danger, and does not expose its residents to harmful air pollution emission. The TGAP/ZOU seems to be impeding the County's efforts to meet these housing objectives that transcend mere raw numbers of units.

Second, there has been no showing that the relaxation of environmental protections in the TGPA/ZOU are necessary for the County to meet its affordable housing targets.

Third, there are more traditional ways to achieve these targets that would not require the relaxing of environmental protections. Many of these are already in the Housing Element. Others can be found in the housing elements of other counties.

Since the Board of Supervisors is hostile to both environmental protection and affordable housing programs, they refused to explore these options. However, that does not make these options infeasible. It simply puts the county in violation of its obligations under CEQA to use its powers and authority to reduce impacts on the environment.

P. 89-90: "Given that up to 20,000 additional residences might be built within the county based on the General Plan provisions absent these policy amendments, the number of additional residences attributable to the TGPA would not be a substantial change in the amount of growth associated with implementation of the General Plan."

> This non-sequitur misses the point. Even if the gross amount development changes little, it is the timing, location, and circumstances of the growth under the TGPA/ZOU that is creating the adverse impacts. Allowing high density, commercial, and industrial development distant from public water and sewer, distant from fire protection services, and miles from population centers exacerbates air quality, traffic, groundwater supply and conflicting land use impacts. Development that once had to wait until local infrastructure was available, will now be allowed without such infrastructure. That is what is triggering the impacts.

P. 90: "However, such parcels would continue to be limited by physical site constraints including availability of reliable groundwater supplies and ability to meet the building code requirements for individual septic system leach fields. The effects of these policy changes therefore would not be expected to substantially change population growth associated with implementation of the General Plan. Finding."

> If the effects of these policy changes will not substantially change population growth then how is the policy advancing the objective of the TGPA/ZOU? Why the blind allegiance to 2004 General Plan provisions with no appreciable benefit and serious costs? If the provision will be used little, why not adopt a mitigation measure that places a numerical limit on its use, to ensure that the impacts are mitigated, rather than relying on an unenforceable presumption? The County has the power to mitigate the impact, just not the will.

P. 91: "Although it is not possible to quantify the potential traffic that may be generated from future home occupations over the term of the planning horizon because the future number and type of such activities, and the size of parcels on which they may be undertaken, is unknown and cannot be known with any accuracy."

> Again, the ZOU could have specified numerical targets or limits for this policy so that the EIR could have properly forecast impacts and mitigated them accordingly. The purpose of CEQA is to get local governments to design projects that reduce the impacts on the environment. Here, the County designed its project to defy impact mitigation. The solutions are within reach, but the unrelenting hand of County government chose not to grasp them.

P.93: "This includes a Housing Element that will accommodate the county's share of the projected housing demand (Government Code Section 65580). The statutory mandate for planning effectively requires the County to designate sufficient residential land in its General Plan to meet the demands of projected future growth. The California Department of Finance estimates that El Dorado County's population (including the cities of Placerville and South Lake Tahoe) will increase from 181,567 persons in 2010 to 205,624 persons by 2035 (California Department of Finance 2014). According to the Housing Element, the 2010 average countywide household size (persons/occupied unit) is 2.55. At that rate, another 9,434 residential units would be needed to accommodate population growth by 2035.

> According to the findings, the 2004 General Plan provides for between 17,500 and 20,000 new units of housing. This is about twice the amount needed to meet regional housing needs for the next 20 years. There is no need to move homes out onto steep slopes to meet regional housing needs. There is no need to decrease open space requirements in Planned Developments to meet these needs. There is no need to push higher density development into areas without water and sewer to meet these needs. The housing needs argument for rejecting mitigation measures and alternatives is not based upon substantial evidence in the record as a whole.

Infusino - Flaws in SOC 8-27-15

Provisions of the Statement of Overriding Considerations not supported by the record as a whole.

Submitted by Tom Infusino, on behalf of Rural Communities United

In general we note the draft Statement of Overriding Considerations (SOC) is long on conclusions but short on references to evidence in the record to support those conclusions. The Planning Commission should direct staff to correct the deficiencies in the SOC noted below.

P. 4: "No additional feasible mitigation measures have been determined to be available for these significant and unavoidable impacts."

> The record as a whole reflects that commenters repeatedly proposed feasible mitigation measures that the County repeatedly rejected without legitimate justification.

P. 4: "To the extent that these adverse impacts will not be eliminated or lessened to a less-than significant level, the Board of Supervisors finds that specific legal and social considerations identified herein support approval of the project despite these unavoidable impacts."

P. 5: "the benefits of the project outweigh its significant and unavoidable or irreversible adverse environmental impacts."

P.13: "The Board of Supervisors has balanced these project benefits and considerations against the unavoidable and irreversible environmental risks identified in the EIR and has concluded that those impacts are outweighed by the project benefits."

> The record as a whole is insufficient to evaluate the extent of these significant and unavoidable or irreversible impacts. Thus, the County is precluded from properly weighing the projects benefits against its impacts.

P. 5: "The project balances policies regarding population growth, continued viability of the agricultural industry, economic development, zoning consistency, and environmental protection, while remaining consistent with the existing General Plan."

> The record as a whole reflects that the County is failing to make a reasonable accommodation of competing regional interests.

P. 7: "LU-D: Revise the Zoning Ordinance to ensure that all uses permitted by right in any zoning district are compatible. Allow potentially incompatible uses subject to a discretionary review process with performance standards to ensure appropriate separation of incompatible uses. Include in the Zoning Ordinance a requirement that any project located adjacent to an existing sensitive land use shall be required to avoid impacts on the existing use."

> The record as a whole reflects that the ZOU has failed to ensure that uses permitted by right are compatible, that performance standards will separate incompatible uses, and that projects shall avoid impacts to existing sensitive uses.

P. 7 "CO-O: Prepare and adopt a riparian setback ordinance. The ordinance, which shall be incorporated into the Zoning Code, should address mitigation standards, including permanent protection mechanisms for protected areas, and exceptions to the setback requirements."

> The record as a whole reflects that the exceptions to the riparian setbacks swallow the permanent protection mechanisms.

P. 8: "E. Provisions setting forth appropriate by-right and conditional use permit development to support the agricultural industry."

> The record as a whole does not reflect that the by-right and conditional uses are appropriate.

P. 8: "AF-J: Complete an inventory of agricultural lands in active production and/or lands determined by the Agricultural Commission to be suitable for agricultural production. Once the inventory is complete, perform a suitability review… and amend the Agricultural District boundaries as appropriate."

> The record as a whole does not reflect that the Agricultural District boundaries were adjusted based upon an inventory of agricultural lands and a suitability determination by the Agricultural Commission.

P. 8: "ED-QQ: Establish standards in the Zoning Ordinance that provide compatible home businesses that complement residential uses in the Community Regions, Rural Centers, and Rural Regions."

> The record as a whole does not reflect that the ZOU has limited home businesses to those that are compatible with, and compliment, residential uses.

P. 11: "The CIPs and the TIM fee program identify the transportation projects needed to ensure that traffic congestion does not exceed the level allowed under the General Plan and fund those projects through development fee contributions, respectively"

The record as a whole does not reflect that the TIM fee program ensures that traffic congestions does not exceed the level allowed under the General Plan.

P. 11: "By updating the Zoning Ordinance and corresponding Zoning Maps, the TGPA/ZOU project creates an internally-consistent, clarified and modernized Zoning Ordinance consistent with the County's General Plan. As part of the project, the Zoning Ordinance Update will have the social benefit of a consistent regulatory environment, creating a sense of certainty for land purchasers who want to know what to expect on adjacent lands, applicants for development projects who depend on consistent procedures and standards by which they need to abide, and decision makers who need to be uniform in applying the code."

The record as a whole does not reflect that the ZOU creates a consistent regulatory environment, or certainty for land purchasers.

P. 12: "The result of the TGPA changes is a net increase in the amount of land protected by the A overlay."

The record as a whole does not reflect that the lands in the agriculture overlay are "protected" by the TGPA/ZOU.

P. 13: "The TGPA-ZOU project will increase sales tax revenues within El Dorado County to some extent by enabling the operation of additional tax generators, including agricultural support services, ranch marketing, recreation, and rural commerce."

We are unaware of, and the finding does not direct us to, a fiscal analysis of the government revenue impacts of the TGPA/ZOU. There is no indication that there is a net benefit to County revenues associated with implementing the TGPA/ZOU. With expansive residential development come extensive infrastructure and service costs. The Statement of Overriding Considerations cannot count government revenue as a benefit without also calculating the government costs of the TGPA/ZOU. Increased revenue is not a benefit if it is eclipsed by increased costs.

P. 13: "The EIR for the County of El Dorado TGPA/ZOU project was prepared pursuant to CEQA and the CEQA Guidelines"

The record as a whole reflects that the EIR was not prepared in accordance with CEQA.

				TGPA/ZOU FEIR Res	is Inadequate				
Comment Number	Disposition of Issue Not Described		No Reason why Suggestion Rejected		Response not Reasoned		Conclusory response lacks factual Support	Response lacks detail of Comment	Explain Problem with Response
MR-1, p. 8-3					X		X		Response incorrectly asserts that future CEQA review will assess TGPA/ZOU impacts, when ZOU allows new uses by right, without discretionary permits, thus avoiding CEQA review. County is abdicating its responsibility to use its powers to mitigate impacts.
MR-2, p. 8.7					X				Response incorrectly asserts, in the face of record evidence, that inclusion in the zoning ordinance ensures the implementation of mitigation measures. Also, ZOU to often fails to mitigate the extent of impacts using sensible quantitative limitations.
MR-4, p. 8-12					X		X		Response incorrectly states without evidence, that the TGPA is consistent with the remainder of the 2004 General Plan.
MR-4, p. 8-12					X		X		Response incorrectly states that proposed developments have been considered in cumulative impact analysis in the EIR.
MR-4, [p. 8-13							X		Response states "intent" to minimize zoning changes but actually changes zoning on 37,000 parcels, one third of the County.
MR-4, p. 8-13					X				The 'some changes' involve the County abandoning permit requirements designed to reduce impacts contrary to CEQA's mandate to adopt feasible mitigation, and to eliminate 2004 general plan provisions and zoning ordinance provisions that reduce impacts.
MR-4, p. 8-13							X		The rezones, many unrequested by property owners, are not the least impactful way to achieve consistency with the general plan, and less impactful alternatives were unjustly rejected.
MR-4, p. 8-15					X		X		The changes are related as part of compliance with the mandate in the General Plan, not unrelated as the response states.
MR-5, p. 8-22					X		X		Response is not good faith effort at full disclosure. Relaxing the public water and sewer requirement allows development that would not otherwise occur due to the lack of infrastructure.
MR-5, p. 8-24					X		X		Development on slopes could have mitigated the impacts by placing limits on the number of such projects over the next ten years. Such measurable objectives and quantified standards are encouraged by the General Plan Guidelines.
MR-6, p. 8-28			X						Response fails to explain why quantitative limits on groundwater dependent development were not instituted to reduce the potential impacts.
Mr6, p. 8-30					X		X		Response ignores comments regarding contaminants in effluent that the septic system is not designed to remove.
MR-6, p. 8-31					X		X		Responses ignores record evidence that County not enforcing water quality protection ordinances.
MR-7, p. 34							X		Response does not refer to any comparative analysis of the 2004 general plan and the TGPA/ZOU for consistency. Commenters have identified plenty of inconsistencies.
MR-8, p. 39					X				Response ignores the evidence of failure to mitigate impacts by delay of mitigation.
MR-9,					X				The Response reject making Targeted General Plan Amendments to make the existing general plan adequate. How can that be outside the scope of a project making Targeted General Plan Amendments?
MR-12					X		X		We dispute that the draft SOC is supported by substantial evidence in the record.
MR-13, p 8-46					X		X		The Response claims to refute the confusing nature of the ZOU, but then argues that it is too complicated to properly explain.
M-14					X		X		The response ignores that the traffic analysis failed to disclose information that is readily available from the County's traffic model, and thereby understated the significance of traffic impacts.
O-1-2					X		X		Rejects a feasible alternative based upon false presumption.
O-1-4					X		X		Incorrectly claims CEQA and General Plan law are not integrated. Incorrectly claims general plans need need not have a problem solving focus.
O-1-6					X		X		Incorrectly interprets CEQA Guidelines requirement for listing areas of controversy.
O-1-8, 9, 12, 22					X				With no way to compare the current zoning ordinance to the past zoning ordinance, it is impossible to know what the ZOU is proposing to change. The details are not readily available.
O-1-10			x		x		x		The ZOU is changing the zoning within specific plans. The zoning designations and the terms of the zoning ordinances are changing, and altering available uses and use restrictions.
O-1-14					X				It is not logical to claim that an incorrect part of the project description is not a relevant comment that req at requires a response pursuant to CEQA.
O-1-16					X				The comment properly notes that there are propose project changes that may have environmental impacts but are not listed in the project description. A change to the EIR is needed.
O-1-17					X				The comment properly notes that there is no state law requirement that the zoning ordinance update be so massive at one time that it defies listing and coherent presentation. The EIR needed to be revised to acknowledge this.
O-1-20					X				The Response incorrectly indicates that aesthetic standards do not relate to environmental issues, when aesthetics are specifically identified as potentially significant impacts evaluated pursuant to CEQA.
O-1-25					X				Nothing in the Master Response justifies the confusing language in the EIR pointed out in the comment.
O-1-26					X				Nothing in the response justifies the contradiction pointed out by the comment.
O-1-29		X			X				The response refuses to recognize the obvious contradiction, and does not answer the question.
O-1-30					X				The County is refusing to look at both site specific and program level impacts, despite the availability of the data. This is not allowed by CEQA.
O-1-37		X	X		X				Nothing in the Mater Responses 3 & 7 explain why the proposed zone changes are made, and why they cannot be mitigated by placing limits on them.
O-1-437								X	
O-1-446					X				The Response ignores CEQA requirements for the detailed evaluation of alternatives, esp[ecially in Program EIRs. It ignores the inability to evaluate the impacts of the unspecified Selective Approval alternative.
O-1-448					X			X	The Response ignores the CEQA cases cited in the comment and incorrectly states the proper legal standards to cumulative impact analyses.
O-1-449					X				The Response ignores that the TGPA/ZOU is relieving many of the development constraints, and thereby facilitating development that would not have otherwise been possible under the prior general plan and zoning ordinance.

August 17, 2015

Shawna Purvines, Principal Planner
El Dorado Community Development Agency
Long Range Planning Division
2850 Fairlane Court
Placerville, CA 95667

Re: Comments on notice of preparation for general plan amendments to biological resources plan components

Ms. Purvines:

We have reviewed the notice of preparation (NOP) for the biological resources policy update to the general plan (GP) and offer the following comments on behalf of the California Native Plant Society and Center for Sierra Nevada conservation.

1) Changes in Objectives 7.4.1 and 7.4.2 and Associated Polices

We raised in earlier comments a concern about the lack of integration between objectives and policies. We remain concerned that the project description in the NOP and supporting documents still does not provide the integration provided by the existing general plan. The project description in the NOP also does not clearly define some terms, e.g., "special-status vegetation communities" or more specifically the "vegetation communities" to which the mitigation ratios in Policy 7.4.2.8 will apply. We ask that the assumptions about which "vegetation communities" that will be subject to the mitigation ratios be clearly stated and evaluated in the draft environmental impact report (DEIR).

We also think that the emphasis on Pine Hill plants in Policy 7.4.1 without providing equal emphasis on other species protected by state and federally de-emphasizes the commitment in the GP to other protected species. The lack of emphasis on other protected species is illustrated by Policy 7.4.2.1 which commits only to coordinating wildlife programs with state and federal agencies. The affirmation from the County in the existing Objective 7.4.1 protect all state and federally recognized rare, threatened or endangered species and their habitat consistent with state and federal law should be retained in the proposed action and preferred alternative.

"Large expanses of native vegetation" are to be "conserved" through the programs implemented in the GP (Policy 7.4.2.8) yet it is unclear which policies under Objective 7.4.2 specifically implement this direction. Fragmentation of habitats through the development centered along Highway 50 has long been known to be a significant impact. We ask that the

DEIR evaluate the impacts of the project description and alternatives on their potential to fragment existing areas of native vegetation in the county. When evaluating expanses of native vegetation, we also ask that you consider habitat patches of all sizes and not arbitrarily limit the evaluation to patches of certain size or exclude areas based on parcel size.

2) In-lieu Fee to Conserve Oak Woodlands

The NOP indicates the County's intent to use the Oak Resources Management Plan and supporting policies to provide an option that allows a project proponent to mitigate for all projects impacts by paying a fee in-lieu of any other mitigations requirements. We do not believe that this mitigation approach in the project description is legally sufficient to reduce significant impacts of development to the extent feasible. We come to this conclusion since the in-lieu fee program does not address mitigation in the area where the principle impacts occur – the Highway 50 development corridor.

Presently, the in-lieu fee program does not include any Priority Conservation Areas (PCAs) in the central portion of the county near Highway 50. Yet we know from presentations made by to the Board of Supervisors (BOS) in February 2015 that there are biological "shortfalls" in the existing PCA system. The analysis provided indicated that the estimated impacts to woodland values cannot be mitigated only by the PCAs. In response, the BOS agreed to allow conservation to occur on lands outside the PCAs and would establish criteria for identifying additional conservation areas.

Having agreed that the locations of the existing PCAs were not by themselves sufficient to address impacts to oak woodlands, the proposed in-lieu fee program (designed solely on the cost to acquire lands in the PACs) is not sufficient to mitigate the impacts on oak woodlands in the areas where development is expected. Because the in-lieu fee does not incorporate the higher cost of the "additional areas" needed to make the PCA strategy sufficient, payment of an in-lieu fee alone cannot be assured to reduce impacts to the extent feasible. Also, the ORMP only states that conservation outside of the PCAs may occur, but fails to identify when it must occur due to the location of project related impacts.

We propose the following as mitigation measures to provide for conservation and to feasibly lessen impacts on oak woodlands:

- Require a combination of on-site mitigation and in-lieu fee for those projects in the central portion of the county that contribute to impacts on oak woodlands; or

- Develop PCAs in the central portion of county that reduce impacts from fragmentation in the central portion of the County and incorporate the acquisition costs of these areas into the in-lieu fee program.

There may well be other options for mitigation measures. Our principle point is that for the in-lieu fee program to be relied upon it must include the costs of all the lands needed to make the

program sufficient to meet the conservation objectives and planning requirements for oak woodlands. We also believe that it is necessary to mitigate project impacts as close as possible to the area of impact.

3) Analysis of the Impacts of Development on Oak Woodland Fragmentation

We ask that you complete a spatial analysis of potential impacts of development on oak woodlands that utilizes the current condition as the baseline. We ask that you not limit the characterization of current condition by arbitrarily defining "large" patches of oak woodland or constraining the sizes of the parcels considered. We note that by accepting in the draft ORMP land dedications of 5-acres or greater having conservation value, any analysis of impacts should include patches of oak woodland at least this size and greater. We would argue that depending on the woodland type (e.g., rarity) and location, patches smaller than 5 acres can be biologically significant.

We also ask that the spatial analysis take into account the variety of woodland types encountered in the county (e.g., species and woodland density). We have attached information on habitat values of oak woodland of various types to inform the evaluation of existing condition and potential impacts.

4) The Project Description is not Stable

Simultaneous with this amendment of the biological policies and objectives is a targeted GP amendment and zoning ordinance update (TGPA/ZOU). Changes as a result of that process have the potential to increase the impacts on oak woodland resources. We ask that the DEIR analyze both the existing GP and the changes proposed in the TGPA/ZOU to ensure that the analysis for this proposal covers the range of conditions that may be in existence upon implementation.

Conclusion

We believe the project description still lacks clarity about the habitat that will be conserved under objective 7.4.2. We also identified a fundamental flaw in the design of the in-lieu fee program, i.e., its failure to adequately address the "shortfall" in the existing PCAs. We believe these deficiencies are sufficiently severe that the project description should be revised to provide remedies prior to completing a DEIR.

We appreciate the opportunity to comment on the proposed changes to the general plan. Please include us on future notifications as the process moves forward. Please contact Sue Britting, if you have questions or wish to discuss our comments.

Sincerely,

Susan Britting

Susan Britting, Ph.D.
Conservation Chair
El Dorado Chapter
PO Box 377
Coloma, CA 95613

Karen Schambach

Karen Schambach
President
Center for Sierra Nevada Conservation

Attachments: Guidelines for Managing California's Hardwood Rangelands (1996)

Saving, S. C., & Greenwood, G. B. (2002). The potential impacts of development on wildlands in El Dorado County, California. In *Proceedings of the 5th Symposium on California's Oak Woodlands: Oaks in California's Landscape. USDA Forest Service Gen. Tech. Rep. PSW-GTR-184* (pp. 443-461).

Guidelines for Managing California's Hardwood Rangelands

UNIVERSITY OF CALIFORNIA DIVISION OF AGRICULTURE & NATURAL RESOURCES PUBLICATION 3368
1996

UNIVERSITY OF CALIFORNIA
INTEGRATED HARDWOOD RANGE MANAGEMENT PROGRAM

CALIFORNIA DEPARTMENT OF FISH & GAME

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Carefully follow all precautions and safety recommendations given on the container label. Store all chemicals in their original containers in a locked cabinet or shed, away from foods or feeds, and out of the reach of children, unauthorized persons, pets, and livestock.

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ON THE COVER: Oaks on a foggy morning — Murphy's Laurelwood Ranch, Sonoma County, California. Photograph courtesy of Michael Brigham, Photographix, 131 E. First Street, Cloverdale, CA 95425. Inside photographs by Michael Brigham, Richard B. Standiford, and Douglas R. McCreary.

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Technical Coordinator: Richard Standiford
Editor: Pamela Tinnin

Contributing Authors (Listed Alphabetically):
Ted Adams, UCD
James Bartolome, UCB
Mike Connor, UC Sierra Foothill Research &Extension Center
Lee Fitzhugh, UCD
Bill Frost, UC - IHRMP
Barry Garrison, CDF&G
Mel George, UCD
Greg Giusti, UC - IHRMP
John Maas, UCD
Doug McCreary, UC - IHRMP
Neil McDougald, UC - IHRMP
Kevin Shaffer, CDF&G
Tom Scott, UC - IHRMP
John Shelly, UC Forest Products Laboratory
Richard Standiford, UC - IHRMP
Bill Tietje, UC - IHRMP
Bob Timm, UC Hopland Research and Extension Center

Chapter Three

Resource Assessment and General Hardwood Rangeland Values

Primary authors: Richard Standiford, Univ. of California, Berkeley; and Barry Garrison, Calif. Dept. of Fish and Game

General Assessment of Property

Once you have completed an assessment of the goals for your hardwood rangeland property, it is necessary to assess the various resources to determine if it is possible to accomplish these goals, and where management activities should be directed. In this chapter, we will present two general worksheets. Worksheet 3-1 gives a framework for evaluating the overall hardwood rangeland property, while worksheet 3-2 will help you assemble basic information about your hardwood stands. Most of the information for 3-1 is easily available from a general reconnaissance of the property, as well as an evaluation of maps and aerial photos. The section on sources of assistance gives advice on ordering maps and photos if you do not already have these. You should plan on completing this entire resource assessment exercise because it can provide a foundation upon which sound land management actions may be built. This is a good activity for all family members or parties interested in a particular property to participate in together. The information gained in this exercise will ensure that everyone has a common base of knowledge about the existing resources on a property.

Seen at left is a large madrone tree located on a ranch in Sonoma County. In the background are black oak trees. Madrone trees frequently occur on montane hardwood rangelands.

Stand Level Assessment

Once you have completed the general property assessment in Worksheet 3-1, take a look at the information in table 3-1 for some general resource enterprises that may work on your property. These possible enterprises can be compared with those which fit in with your goals developed from the worksheets in chapter 1, to decide on the management potential for your hardwood rangeland property. Then you will be able to direct your attention to detailed discussions in chapters 4 through 9 of this book on various hardwood rangeland enterprises. You may need to collect additional information for a detailed assessment of the individual enterprises. This should help guide your decision about which types of management activities will be best for your situation.

Worksheet 3-1. Hardwood Rangeland Propety Assessment

General Property Information

Property name _____ Parcel size _____ acres Elevation _____ feet

Describe how property was acquired (date, method acquired, original purchase price/basis)

Current Property Value _____

Nature of ownership

❑ Sole ❑ Joint ❑ Partnership ❑ Other _____

Property location (describe general loeation of property; use local maps where possible)

Accessibility (deseribe road access to various parts of the property and locate on map/photo)

Adjacent land uses (describe all adjacent land uses)

❑ Ag./open space ❑ Suburban ❑ Rural Residential ❑ Urban ❑ Public land ❑ Protected Areas

Topography (show on map/photo)

Acres on slopes less than 30% ___ Acres on slopes greater than 30% ___

Distance to markets

Distance to urban areas/clientele base for hunt clubs and customers for firewood: ___ miles

Distance to livestock markets: ___ miles

Other markets: ___ miles

Legal/political/social constraints (list ordinances, deed restrictions, zoning, and neighbor concerns affecting property)

Water

Sources of water (describe all sources of water on property and locate on map/photo where appropriate)

❑ Ponds ❑ Water troughs ❑ Springs ❑ Intermittent streams ❑ Perennial streams

❑ Wells ❑ Irrigation ditch ❑ Municipal water source ❑ Other _____

Water quality concerns (describe and locate areas with specific water quality concerns)

General Vegetation Information

Acres by general vegetation cover types (locate vegeration types on map/pboto)

Grassland _____ acres Oak woodlands _____ acres Shrubland _____ acres

Irrigated agric. _____ acres Residential areas _____ acres Wetlands/riparian zones _____ acres

Other forested type _____ acres Other ( ) _____ acres

Worksheet 3-1. Hardwood Rangeland Property Assessment (cont.)

Current Management/Economic Uses

Grazing/livestock (check current enterprises that apply, and general information below)

❑ Cow/calf ❑ Stocker ❑ Sheep; ewe/lamb ❑ Lease grazing to others

❑ Other livestock _____

Current livestock inventory: ____ head on ____ acres

Season of use (check all that apply): ❑ Fall ❑ Winter ❑ Spring ❑ Summer

Other sources of forage: ❑ Public land lease ❑ Private lease ❑ Another ranch ❑ Other _____

Tree harvest (describe current tree harvest and marketing programs)

Type of wood products sold: ❑ Firewood ❑ Sawtimber ❑ Biomass ❑ Other _____

Species of tree sold: ❑ Blue oak ❑ Live oak ❑ Foothill pine ❑ Other _____

Harvest _____ cords every ____ years on _____ acres

Hunt Club (describe any hunt club activities you have)

Game species hunted: ❑ Deer ❑ Turkey ❑ Other gamebirds ❑ Pigs ❑ Elk ❑ Other _____

Lease description (describe hunt club economic arrangement)

20

List other economic uses of hardwood rangeland property

Capital improvements (list of all capital improvements and show on map/photo)

Buildings	Fencing	Road systems	Other Improvements

Resource Constraints

Soils (list all soil series, general productivity, and constraints)

Erodible areas (list all eroded and erodible areas and locate on map/photo where possible)

Threatened and endangered plant and animal species

Table 3-1. Matrix of resource assessment and management enterprises (for assessment chapter)

Assessment Criteria	Livestock grazing	Hunt club/ recreation	Conservation land	Wood products	Specialty products
Parcel size	>25 acres	>500 ac (deer); >100 ac. (turkeys)	>100 ac.	>100 ac.	Depends on product
Cover type and pattern	Must have patches of open or low density woodlands for forage	Mixture of dense and open woodlands with large patches of dense connected woodlands	Must have some special cover type being lost near property or a highly desirable habitat	Must have stands with over 40 percent cover	Sufficient amount of vegetation type for product
Water	Need water	Need water	May enhance value	Not important	May be important
Access	Not important	Need road system for transport	Not essential unless public access desired	Need road system for hauling	Need access for transportation and management
Adjacent land use	Urban uses may present social conflicts	Urban uses may present social conflicts: Rely on neighbors for some habitat needs	Opportunities are best in areas close to urban/residential areas	Urban uses may present social conflicts	Urban uses may present conflicts or opportunities depending on product
Topography	Most areas <50 pct. slope	Need areas with <50 pct. slope for access	Slope class has little effect	Operate only in areas with <30 pct. slope	Most likely need areas <30 pct. slope
Distance to market	Unlimited with new video marketing sales	Need to be <120 miles	Generally near to urban areas or areas with some adverse impact	<100 miles	Should be <100 miles to market to minimize transportation
Capital improvements	Fences, water facilities	Not critical	Not critical	Depends on product	Depends on product
Legal constraints	Local ordinances. T&E species	T&E species, hunting regulations	Often restricts future land use; may be constraints on compatible enterprises	Local ordinances. T&E species, deed restrictions. Forest Practice Act	Need to check health codes, zoning restrictions, T&E species
Resource constraints	Need residual biomass	Species of interest should be present in sufficient numbers to support harvest (i.e. turkeys, deer, etc.)	Presence of critical habitat or threatened and endangered species may enhance value	Site must be capable of regeneration from seedlings or sprouting	Need to ensure that "product" management does not disrupt site ecological processes

Assessing Legal Concerns

Today's land management must often comply with numerous laws and regulations that are imposed at all levels - local, state, and federal. Federal laws and regulations are implemented by either the federal agency which has jurisdiction, or are delegated to a state agency. State laws and regulations for the most part are the responsibility of the jurisdictional agency, although responsibilities can be delegated to county or district agencies. Local ordinances are implemented by the county or district agency. An important part of an assessment is finding out which of these legal concerns apply to your situation, and what these require you to do. Some of the different types of laws and regulations you should be investigating are described, as well as where you might find more information.

Water: Water rights and water quality are both the responsibility of the California State Water Resources Board, who further delegate the water quality responsibilities to nine Regional Water Quality Control Boards. Federal laws such as the Federal Clean Water Act, Safe Drinking Act, and Coastal Zone Act are tailored for implementation in California by the Porter-Cologne Act. Water rights are involved when considering pond or spring development and diversions for water supplies. Water rights applications and information for land parcels are obtained at the county recorder's office. Stream water diversions require a "1603 permit" from the California Department of Fish and Game. Water quality considerations for hardwood rangelands most often involve nonpoint source pollution factors, including sedimentation, nutrients, and/or pathogens. Riparian vegetation management is frequently considered along with these other nonpoint source pollution factors.

Wetlands: Wetlands jurisdiction is confusing and landowners and managers should check to see what issues are of local concern and which agency is involved. Laws and regulations are under a state of revision. For most agricultural lands, the Natural Resources Conservation Service (NRCS) has the lead role for wetlands management. In some cases, the Army Corps of Engineers, the US Fish and Wildlife Service, or the California Department of Fish and Game may be the lead agency.

Air Quality: Any burning activities are under the jurisdiction of local Air Quality Management Districts (AQMD). Check with your local AQMD to determine an air quality restrictions that would apply to management of your hardwood rangelands.

Wildlife: The County Agricultural Commissioner handles issues related to controlled materials for predator control. The California Department of Fish and Game is responsible for issuing predation permits for some animals (deer, mountain lions, bear, etc.), and for setting regulations over hunting and fishing. Furthermore, the Department protects species listed as threatened, endangered, or protected by state law, and it has general jurisdiction and public trust responsibility for the state's fish and wildlife and their habitats.

Timber: Most tree species on hardwood rangelands are currently not considered "commercial species" and are not subject to the Forest Practice Rules administered by the State Board of Forestry. However, a number of counties and cities have ordinances that affect the harvest of oak trees on rangelands. Several other counties have voluntary oak tree harvesting guidelines and suggested best management practices. Check with local experts to see what local rules and guidelines apply to your area.

Endangered Species: Both federal and state laws list plants and animals that are threatened or endangered. The US Fish and Wildlife Service has jurisdiction over the federally listed species, while the California Department of Fish and Game has jurisdiction of those listed by the state (see Appendix A and B). Specific circumstances may prohibit certain management practices or changes in land use if they affect a listed plant or animal. Check locally with California Department of Fish and Game, U.S. Fish and Wildlife Service, or UC Farm Advisors for the situation in your area. This is discussed in more detail in chapter 4.

Archaeological Sites: There is increasing public concern about preserving historically and culturally significant

sites. The presence of such sites may impact proposed changes in land use or management. County planning, Community Colleges, State Colleges, and local museums are good sources of information on archaeological sites in your area.

Land Use: A number of land use related issues may influence certain management decisions. The California Land Conservation Act (Williamson Act) contracts with certain counties to provide tax relief for agreeing to not develop land for 10 years. County General Plans often have restrictions on parcel size, land use, and zoning. Easements for utilities, conservation, open space, and wildlife habitat are becoming more common. Other laws and ordinances to be aware of are those relating to the right to farm and fence, trespass laws, as well as private property rights laws.

Livestock: There are a number of laws relating to livestock including: animal identification (branding) law; laws relating to diseases such as TB and brucellosis; and laws concerned with the disposal of dead animals. Your local agricultural commissioner can provide information on each of these.

Professional Certification: The State Board of Forestry has the licensing authority over natural resource professionals to protect the natural resources of the state and to protect the public interest by ensuring competent professional work. Designations for Certified Rangeland Managers (CRM) and Registered Professional Foresters are maintained by the State Board of Forestry. Details on qualifications, duties, and a list of certified professionals are available.

Values for Hardwood Rangeland Stands

Worksheet 3-2 helps you to collect basic information on hardwood rangeland cover type, canopy cover, slope class, and associated habitat elements, and will allow you to look up some general ecological and managerial recommendations. Table 3-2 shows how the information on tree cover type and canopy density can be used to refer you to a specific description. For example, if your stand is a blue oak woodland with a 50 percent canopy cover, you would go to the description for site C, found on page 11 of this chapter.

Each of the 12 broad site descriptions gives general recommendations and assessments on four categories: oak cover/forestry; recreation; wildlife diversity; and grazing. These are based on some very broad statewide conclusions from practical experiences and research studies. These descriptions, assessments, and recommendations are intended to guide you through some general ideas on the potential uses for hardwood rangeland stands on your property. As you evaluate these recommendations, the rainfall zone, slope class, and presence of wildlife habitat elements such as snags, riparian zones, or downed woody debris, which you are assessing in worksheet 3-2, will allow you to refine these recommendations. These general recommendations must be followed up with site specific information for your local area. Chapters 4 through 9 will help you develop this site specific information for your property.

Table 3-2. Classification for hardwood rangeland sites based on tree cover type and canopy cover.

Tree Cover Type	Tree Canopy Cover			
	10 - 24%	25 - 39%	40 - 59%	60 - 100%
Blue oak woodland, blue oak-foothill pine woodland	A	B	C	D
Valley oak woodland	E	F	G	H
Coastal oak woodland, montane hardwood	I	J	K	L

Worksheet 3-2. Hardwood Rangeland Stand Assessment

Property name

Location of Stand (describe general location on property, use maps where possible)

Acres in Stand		Elevation	Soil Series	
Aspect	❑ North	❑ South	❑ East ❑ West	
Av. Annual Rainfall	❑ <15"	❑ 15 - 25"	❑ 25 - 35"	❑ >35"
Slope Class	❑ Gentle (<30%)		❑ Steep (>30%)	
Erosion	❑ None	❑ Sheet/rill	❑ Gullies	
Ground cover	❑ <25%		❑ 25 - 50%	❑ 51 - 75% ❑ >75%
Tree Cover Type	❑ Blue oak woodland, Blue oak-foothill pine woodland ❑ Valley oak woodland ❑ Coastal oak woodland, montane hardwood			
Tree Canopy Cover	❑ Minimal (<10%) ❑ Moderate (40 - 59%)		❑ Sparse (10 - 24%) ❑ Dense (60 - 100%)	❑ Open (25 - 39%)
Average Tree Size	❑ Seedling (<1 in. DBH) ❑ Pole (6 - 11 in. DBH) ❑ Med./Large tree (>24 in. DBH)			❑ Sapling (1 - 6 in. DBH) ❑ Small tree (11 - 24 in. DBH) ❑ Multi-layered
Tree Mortality	❑ None		❑ Light (<5 % trees)	❑ Heavy (>5% trees)
Regeneration status (check all that apply)	❑ none evident ❑ Saplings (3 - 10' tall)		❑ Small seedlings (<1' tall)	❑ Large seedlings (1 - 3' tall)
Shrub canopy cover	❑ Minimal (<10%) ❑ Moderate (40 - 59%)		❑ Sparse (10 - 24%)	❑ Open (25 - 39%) ❑ Dense (60 - 100%)
Shrub age class (yrs. since fuel reduction)	❑ <5 years ❑ >25 years		❑ 5 - 15 years	❑ 15 - 25 years
Habitat elements (check all that apply)	❑ Brush piles ❑ Riparian zones		❑ Snags	❑ Dead and down logs
Water sources	❑ None ❑ Springs		❑ Perennial streams ❑ Water developments	❑ Intermittent streams ❑ Other _____

Threatened and endangered plants and animals present:

Site A: Blue oak woodland, blue oak foothill pine woodland; 10 – 24 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 20 to 170 cubic feet per acre, and 10-year growth rate ranges from 2 to 40 cubic feet per acre. These are not good areas for commercial harvesting activities due to very low stocking and low growth rates. Many open blue oak savannahs lack oak regeneration, especially on low elevation and/or low rainfall zones. Managers should compare current levels of mortality to regeneration. In areas where mortality exceeds regeneration, it may be necessary to adopt management procedures to encourage regeneration.

Recreation Assessment:
These areas offer only limited opportunities for hunt clubs in their current condition because of low cover and acorn production. Medium populations of quail can be expected, which can be improved by providing additional water and cover with brush piles. It may be desirable to increase cover if feasible to improve habitat for deer and turkeys.

Wildlife Diversity Assessment:
These open blue oak savannah stands contain both grassland and woodland wildlife species. In general, the habitat is good for open grassland species such as western meadowlark, but marginal for woodland species such as Pacific-slope flycatchers. Habitat elements, such as riparian zones, snags, trees with cavities, and large woody debris, have an important effect on biodiversity by making habitats more complex. More complex habitats support greater numbers of wildlife. According to the California Wildlife Habitat Relationships system (CWHR) there are 21 amphibian species, 33 reptile species, 73 mammal species, and 137 bird species which are predicted to occur in these habitats if various elements occur. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur in these habitats falls to 10 amphibian species, 31 reptiles, 39 mammals, and 101 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 3,000 pounds per acre with a range from 1,500 to 4,500 pounds. In low rainfall areas, the presence of scattered trees has been found to increase overall range forage production. However, thistles and other undesirable plants may occur under the tree canopy, although this is not common. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

Site B: Blue oak woodland, blue oak foothill pine woodland; 25 – 39 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 170 to 425 cubic feet per acre and the 10-year growth is 25 to 70 cubic feet per acre. These areas are generally not good for commercial firewood harvesting. The existing stocking level is good for diverse resource values, and managers should not take canopy density much lower. Some light thinning may be possible in dense clusters, but avoid using equipment on areas with over 30 percent slope to minimize erosion. Perhaps 40 to 85 cubic feet could be harvested per acre in higher productivity sites every 20 years. Many areas like these have an absence of oak regeneration, especially on low elevation and/or rainfall areas. Managers should assess current levels of mortality and compare this to seedling and sapling regeneration. In areas where mortality exceeds regeneration, it may be necessary to adopt management procedures to encourage regeneration.

Recreation Assessment:
These areas have good overall habitat for mule and black-tailed deer, wild pigs and California quail. Habitat can be improved by enhancing acorn production, planting legumes, and maintaining these through proper livestock and deer management. Any reductions in oak cover will also decrease habitat value for many desired game spe-

cies. Areas with slopes greater than 30 percent will have lower values for hunt clubs because of the difficult access.

Wildlife Diversity Assessment:
These blue oak woodland stands support both grassland and woodland wildlife species. In general, the habitat is fairly good for a large number of wildlife species. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 21 amphibian species, 31 reptile species, 64 mammal species, and 128 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 10 amphibian species, 29 reptiles, 30 mammals, and 95 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 3,000 pounds per acre with a range from 1,500 to 4,500 pounds. In low rainfall areas, the presence of scattered trees has been found to increase overall range forage production. However, thistles and other undesirable plants may occur under the tree canopy, although this is not typical. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

Site C: Blue oak woodland, blue oak foothill pine woodland; 40 – 59 percent canopy cover

Oak Cover/Forestry Assessment:
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Oak volumes range from 425 to 1200 cubic feet per acre. Ten year growth ranges from 50 to 130 cubic feet per acre. Firewood harvest potential exists, but avoid using equipment on slopes over 30 percent to minimize erosion.. Harvest levels should approximately equal growth to maintain existing oak cover for diverse resource values. Approximately 85 to 250 cubic feet per acre can be harvested every 20 years from these stands. Ensure adequate oak regeneration after harvest.

Recreation Assessment:
These areas are excellent for medium to large populations of mule and black-tailed deer, squirrel, wild pigs, wild turkeys, mourning dove, and band-tailed pigeons. On areas with less than 30 percent slope, the terrain is excellent for hunter access. Careful tree thinning can complement game habitat. Where controlled fire can be used, it can help stimulate palatable shrub browse. Seeding clover and other legumes and maintaining it through grazing will benefit deer, turkey and quail.

Wildlife Diversity Assessment:
These blue oak woodland stands support a large number of wildlife species. The higher tree density makes these areas less desirable for open grassland species such as western meadowlarks and western kingbirds, but very desirable for woodland species such as Pacific-slope flycatchers and wild pigs. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. 19 amphibian species, 28 reptile species, 64 mammal species, and 128 bird species are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or water sources, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 10 amphibian species, 26 reptiles, 30 mammals, and 95 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 2,000 pounds per acre with a range from 1,000 to 2,800 pounds. In areas with less than 20 inches of annual rainfall and during drought years on higher average rainfall areas, range productivity and forage nutritional value is often enhanced by the presence of this level of oak cover. In higher rain-

fall areas, the shading effect of the canopy suppresses total production. Thistles and other undesirable plants may occur under the tree canopy, although this is not typical. Potential for range improvement on slopes less than 30 percent through seeding, fertilization, and grazing management may increase productivity by two- to three-fold where production is currently at the low end of the scale. Tree thinning will increase forage production under the removed canopy in the higher rainfall zones of the state (over 20 inches per year).

Site D: Blue oak woodland, blue oak-foothill pine woodland; 60 – 100 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 1200 to 3800 cubic feet per acre. Estimated growth ranges from 170 to 510 cubic feet per acre over 10 year. Firewood harvest can be carried out to permanently reduce cover and improve habitat for selected wildlife species and range productivity. Areas with less than 30 percent slope are a good place to prioritize for harvesting on the ranch. 500 to 2500 cubic feet per acre can be harvested from these stands to permanently reduce stands to 40 to 60 percent canopy cover after 20 years. If stand openings are absent, you may wish to make some small openings through the firewood operation to encourage blue oak regeneration.

Recreation Assessment:
These areas provide excellent habitat for mule and black-tailed deer, squirrel, wild pig, wild turkey, mourning dove, and band-tailed pigeons. On areas with over 30 percent slope, hunter access is too difficult for commercial operations. Thinning stands back to 50 percent cover in a patchy pattern can enhance deer habitat. Turkeys do best with a dense canopy, and California quail do best with less tree canopy, but both species prefer dense shrub layers and ample water sources.

Wildlife Diversity Assessment:
These dense blue oak woodland stands support a large number of wildlife species, although the higher tree density makes these areas undesirable for open grassland species. A few species such as Cooper's hawks and orange-crowned warblers, actually prefer the dense conditions found in these stands. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 19 amphibian species, 25 reptile species, 62 mammal species, and 102 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 10 amphibian species, 23 reptiles, 28 mammals, and 77 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species. Some thinning may help enhance overall biological diversity.

Grazing Assessment:
Average forage production capability is 900 pounds per acre with a range from 500 to 1,500 pounds. The dense tree cover suppresses forage production, leaving less available for livestock operations. Thinning stands on slopes less than 30 percent will increase forage production under the removed canopy for about 15 years by 50 to 100 percent especially on poor sites. After tree thinning, seeding, fertilization, and grazing management may increase forage production. Little improvement potential exists on steeper slopes.

Site E: Valley oak woodland; 10 – 24 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 40 to 340 cubic feet per acre. Growth ranges from 17 to 80 cubic over 10 years. The canopy in these open valley oak savannahs needs to be maintained. These areas are poor candidates for any harvest activity. Managers should encourage the recruitment of young seedlings to sapling size through management activities.

Recreation Assessment:
These areas offer only limited opportunities for hunt clubs in their current condition because of low shrub cover

and acorn production. Medium populations of quail can be expected, which can be improved by providing additional water and cover with brush piles. It may be desirable to increase cover, if feasible, to improve habitat for deer and turkeys.

Wildlife Diversity Assessment:
These open valley oak savannah stands contain both grassland and woodland wildlife species. In general, the habitat is good for open grassland and open woodland species such as western meadowlark, and marginal for woodland species such as Pacific-slope flycatcher. The presence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 19 amphibian species, 32 reptile species, 72 mammal species, and 132 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 8 amphibian species, 30 reptiles, 38 mammals, and 99 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 3,500 pounds per acre with a range from 2,000 to 5,000 pounds. In low rainfall areas, the presence of scattered trees has been found to increase overall range forage production. Thistles and other undesirable plants may occur under the tree canopy, although this is not typical. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

28 Site F: Valley oak woodland; 25 – 39 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 340 to 1100 cubic feet per acre. Ten year growth ranges from 60 to 150 cubic feet per acre. Although these are not good areas for commercial harvesting, there is some potential for light thinning due to the relatively high productivity of valley oak stands. It may be desirable to utilize trees being lost to mortality if not needed to provide snags in the stand. Perhaps 40 to 170 cubic feet per acre could be harvested every 20 years on slopes less than 30 percent. The existing stocking level is good for diverse resource values, and managers should not take canopy density much lower. Attempts should be made to encourage recruitment of oak seedlings to sapling size through management practices. Rapid growth of seedlings is possible.

Recreation Assessment:
These areas have good overall habitat for mule and black-tailed deer, wild pigs and California quail. Habitat can be improved by enhancing acorn production, planting clover and other legumes, and maintaining these through proper livestock and deer management, and enhancing shrub cover. Any reductions in oak cover will also decrease habitat value for most commercial game species. Areas with slopes greater than 30 percent will have lower values for hunt clubs because of the difficult access.

Wildlife Diversity Assessment:
These valley oak woodland stands have both grassland and woodland wildlife species. In general, the habitat is fairly good for a large number of wildlife species. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 19 amphibian species, 30 reptile species, 71 mammal species, and 128 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 8 amphibian species, 28 reptiles, 37 mammals, and 96 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 3,000 pounds per acre with a range from 1,500 to 4,500 pounds. In low rainfall areas, the presence of scattered trees has been found to increase overall range forage production. However, thistles and other undesirable plants may occur under the tree canopy, although this is not typical. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

Site G: Valley oak woodland; 40 – 59 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 1100 to 2900 cubic feet per acre. Ten year growth ranges from 120 to 420 cubic feet per acre. Some thinning on a sustainable basis is possible, especially in stands with large numbers of small trees to improve individual tree growth rate. There is some possibility to utilize harvested trees for solid wood products, such as white oak lumber or barrel staves. 170 to 680 cubic feet per acre could be harvested every 20 years on stands with less than 30 percent slope. It is important to ensure that adequate oak regeneration results after the harvest.

Recreation Assessment:
These areas are excellent for medium to large populations of mule and black-tailed deer, squirrel, wild pigs, wild turkeys, mourning dove, and band-tailed pigeons. On areas with less than 30 percent slope, the terrain is excellent for hunter access. Some careful tree thinning can complement game habitat. Where controlled fire can be used, it can help stimulate palatable shrub browse. Seeding clover and other legumes and maintaining these through grazing, as well as increasing shrub cover, will benefit deer, turkey and quail.

Wildlife Diversity Assessment:
These valley oak woodland stands support a large number of wildlife species. The tree density makes these areas less desirable for open grassland species such as western meadowlarks and western kingbirds, but very desirable for woodland species such as Pacific-slope flycatchers and orange-crowned warblers. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 17 amphibian species, 27 reptile species, 63 mammal species, and 123 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 8 amphibian species, 25 reptiles, 29 mammals, and 93 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 2,000 pounds per acre with a range from 1,000 to 2,800 pounds. On such sites, the shading effect of the canopy usually suppresses total production. Thistles and other undesirable plants may occur under the tree canopy, although this is not typical. Potential for range improvement on slopes less than 30 percent through seeding, fertilization, and grazing management may increase productivity by two- to three-fold where production is currently at the low end of the scale. Tree thinning will increase forage production under the removed canopy in the higher rainfall zones of the state (over 20 inches per year).

Site H: Valley oak woodland; 60 – 100 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 2900 to 5100 cubic feet per acre. Estimated ten year growth rate ranges from 220 to 420 cubic feet per acre. Harvest could be carried out to increase individual tree diameter and crown growth rate on areas with less than 30 percent slope and high stem density and small diameter trees. This may help improve acorn production and create conditions favorable for seedling establishment. Seedlings are likely to be absent or very slow growing due to little sunlight reaching the ground. Harvest levels of 420 to 1700 cubic feet per acre can be

carried out every 20 years. There is some possibility to utilize harvested trees for solid wood products, such as white oak lumber or barrel staves. It is important to ensure that adequate oak regeneration results after the harvest.

Recreation Assessment:
These areas offer good opportunities for habitat for mule and black-tailed deer, western gray squirrel, wild pig, wild turkey, mourning dove, and band-tailed pigeons. On areas with over 30 percent slope, hunter access is too difficult for commercial operations. Thinning stands to 50 percent cover in a patchy pattern may enhance deer habitat if shrub cover is increased. Turkeys do best with a dense canopy, and California quail do best with somewhat less canopy.

Wildlife Diversity Assessment:
These dense valley oak woodland stands support a large number of wildlife species. The tree density makes these areas undesirable for open grassland species. A few species such as orange-crowned warblers and house wrens, actually prefer the dense conditions found in these stands. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 17 amphibian species, 24 reptile species, 61 mammal species, and 96 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 8 amphibian species, 22 reptiles, 27 mammals, and 74 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species. Thinning may enhance biological diversity.

Grazing Assessment:
Average forage production capability is 1,200 pounds per acre with a range from 800 to 1,500 pounds. The dense tree cover suppresses forage production, leaving less available for livestock operations. Thinning stands on slopes less than 30 percent will increase forage production under the removed canopy for about 15 years by 50 to 100 percent at lower levels of current production. After tree thinning, improvement potential through seeding, fertilization, and grazing management may increase forage production. Little improvement potential exists on steeper slopes.

Site 1: Coastal oak woodland, montane hardwood; 10 – 24 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 35 to 250 cubic feet per acre and growth ranges from 17 to 50 cubic feet every 10 years. These areas are not good locations for firewood harvests due to very open stocking. Regeneration concerns are not as pronounced in live oak stands due to rapid resprouting in most areas of the state.

Recreation Assessment:
These areas may offer only limited opportunities for hunt clubs in their current condition because of low tree cover. Medium populations of quail can be expected, which can be improved by providing additional water and cover with brush piles. It may be desirable to increase cover if feasible to improve habitat for mule and black-tailed deer and turkeys. The presence of sprouting live oaks allows greater latitude in quail management than deciduous oaks with similar cover.

Wildlife Diversity Assessment:
These open live oak savannah stands contain both grassland and woodland wildlife species. In general, the habitat is good for open grassland species such as western meadowlark and western kingbirds, and marginal for woodland species such as Pacific-slope flycatcher and western gray squirrels. The presence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 18 amphibian species, 35 reptile species, 74 mammal species, and 135 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush

piles on the site, the number of vertebrate wildlife species predicted to occur on these habitats falls to 7 amphibian species, 33 reptiles, 38 mammals, and 101 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 2,700 pounds per acre with a range from 1,800 to 4,000 pounds. Oak canopy in these lightly stocked areas may enhance forage production in low rainfall areas or during drought years. These low canopy levels have only minimal impact on forage production in higher rainfall zones, although thistles and other undesirable plants may occasionally occur under the tree canopy. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

Site J: Coastal oak woodland, montane hardwood; 25 – 39 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 250 to 850 cubic feet per acre, with a ten year growth of 50 to 100 cubic feet per acre. Rapid regrowth of stump sprouts and fairly high growth potential of live oaks would allow some commercial harvest to take place. Harvest levels of 85 to 250 cubic feet per acre every 20 years are possible on areas with less than 30 percent slope. It is important to ensure that regeneration from seedlings or stump sprouts is adequate to replace trees being harvested.

Recreation Assessment:
These areas provide good overall habitat for deer, wild pigs and California quail. Habitat can be improved by enhancing acorn production, planting clover and other legumes and maintaining these through proper livestock and deer management, and enhancing shrub cover. Some selective thinning of dense stands may improve habitat for some game species, although leaving some denser areas will maintain habitat values for species using denser cover. If brush is present, brush piles can considerably improve quail habitat. Areas with slopes greater than 30 percent will have lower values for hunt clubs because of the difficult access.

Wildlife Diversity Assessment:
These live oak woodland stands support both grassland and woodland wildlife species. In general, the habitat is fairly good for a large number of wildlife species. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 18 amphibian species, 34 reptile species, 74 mammal species, and 131 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur in these habitats falls to 7 amphibian species, 32 reptiles, 38 mammals, and 98 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:
Average forage production capability is 2,500 pounds per acre with a range from 1,500 to 3,500 pounds. Tree cover will cause some suppression of winter and spring production except in areas of low rainfall. Thistles and other undesirable plants may sometimes occur under the tree canopy. Potential for range improvement on slopes less than 30 percent through seeding, fertilization, and grazing management may increase productivity by two- to three- fold where production is currently at the low end of the scale. Tree thinning may increase forage production under the removed canopy in the higher rainfall zones of the state (over 20 inches per year).

Site K: Coastal oak woodland, montane hardwood; 40 – 59 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 850 to 2200 cubic feet per acre. Growth rates of 100 to 190 cubic feet per acre are expected every 10 years. These stands are excellent candidates for sustainable wood harvest operation if slopes are

less than 30 percent. There is some potential for utilization of trees for sawtimber in larger straight-stemmed trees. Harvest levels of 170 to 510 cubic feet per acre every 20 years are possible. It is important to ensure that regeneration from seedlings or stump sprouts are adequate to replace trees being harvested.

Recreation Assessment:
These areas are excellent for quail and moderately good for deer, wild pigs, wild turkeys, and band-tailed pigeons. On areas with less than 30 percent slope, the terrain is excellent for hunter access. Some careful tree thinning can complement game habitat, although some dense areas should be left for cover and breeding purposes. If brush is absent, brushpiles can improve quail habitat considerably. If possible, prescribed burning can stimulate shrub layer browse. Seeding clover and other legumes and maintaining it through grazing, and enhancing shrub cover will benefit deer, turkey and quail.

Wildlife Diversity Assessment:
These live oak woodland stands support a large number of wildlife species. The tree density makes these areas less desirable for open grassland species such as western meadowlarks and western kingbirds, but very desirable for woodland species such as Pacific-slope flycatchers and orange-crowned warblers. The occurrence of more complex habitats, through the presence of habitat elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 16 amphibian species, 30 reptile species, 66 mammal species, and 126 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur in these habitats falls to 7 amphibian species, 28 reptiles, 30 mammals, and 95 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species.

Grazing Assessment:

Average forage production is 2,000 pounds per acre, ranging from 1,000 pounds to 2,800 pounds. Forage production is usually suppressed by tree canopy except in low rainfall zones. Thinning may increase forage under some removed canopies by 100 to 200 percent. Brush understory may occur in some locations and is suitable for management burns. Potential for range improvement through seeding, fertilization, and grazing management may increase productivity where production is currently at the lower end of the scale and available soil and soil moisture is not limiting.

Site L: Coastal oak woodland, montane hardwood; 60 – 100 percent canopy cover

Oak Cover/Forestry Assessment:
Oak volume ranges from 2200 to 5100 cubic feet per acre. Growth ranges from 190 to 310 cubic feet every 10 years. These very dense stands could benefit from thinning to improve overall biological diversity, acorn production, and forage yields. Restrict harvest to areas with less than 30 percent slope. Harvest levels of 510 to 1700 cubic feet per acre can be carried out every 20 years. There is some potential to utilize larger diameter logs for sawtimber, especially if boles have few branches. It is important to ensure that regeneration from seedlings or stump sprouts are adequate to replace trees being harvested.

Recreation Assessment:
These areas offer good opportunities for habitat for deer, western gray squirrel, wild pig, wild turkey, mourning dove, and band-tailed pigeons. On areas with over 30 percent slope, hunter access is too difficult for commercial operations. Thinning stands back to 50 percent cover in a patchy pattern may enhance deer habitat if shrub and herbaceous cover are improved. Turkeys do best with a dense canopy, and California quail do best with somewhat less canopy, but both prefer moderately dense shrub layers.

Wildlife Diversity Assessment:
These dense live oak woodland stands support a large number of wildlife species. The tree density makes these areas undesirable for open grassland species. A few species such as orange-crowned warblers, actually prefer the dense conditions found in these stands. The occurrence of more complex habitats, through the presence of habitat

elements such riparian zones, snags, trees with cavities, and large woody debris, has an important effect on biodiversity. There are 16 amphibian species, 26 reptile species, 64 mammal species, and 99 bird species which are predicted to occur by CWHR on the most diverse habitats in these stands. If there are no riparian zones or sources of water, no snags or cavity trees, and no large woody debris or brush piles on the site, the number of vertebrate wildlife species predicted to occur in these habitats falls to 7 amphibian species, 24 reptiles, 28 mammals, and 76 bird species. This points to the importance of maintaining diversity in the habitat elements present in the stand to provide for the highest possible diversity of wildlife species. Some thinning may help enhance overall biological diversity.

Grazing Assessment:
Average forage production capability is 900 pounds per acre with a range from 500 to 1,500 pounds. The dense tree cover suppresses forage production, leaving less available for livestock operations. Thinning stands on slopes less than 30 percent will increase forage production under the removed canopy for about 15 years by 50 to 100 percent at lower levels of current production. After tree thinning, improvement potential through seeding, fertilization, and grazing management may also increase forage production. Little improvement potential exists on steeper slopes.

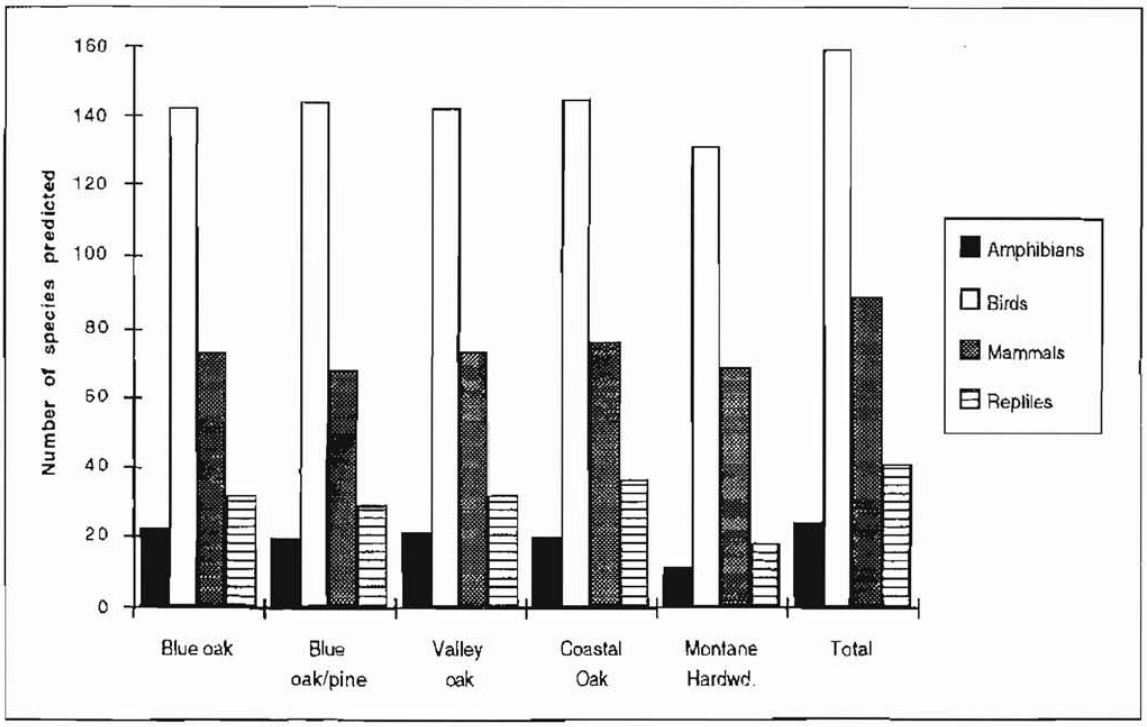
Chapter Four

Oak Woodland Wildlife Ecology, Native Plants, and Habitat Relationships

Primary authors: Greg Giusti, Univ. of California, Mendocino Co.; Tom Scott, Univ. of California, Berkeley; Barry Garrison, Calif. Dept. of Fish and Game; and Kevin Shaffer, Calif. Dept. of Fish and Game

The five habitat types occurring in California's hardwood rangelands (also known as oak woodlands) provide habitat for at least 313 species of birds, mammals, reptiles, and amphibians; more than 2000 plant species; and an estimated 5000 species of insects. Figure 4-1 graphically shows the diversity of vertebrate wildlife species predicted for each of the five major habitat types described in chapter 2. A complete list of all 313 species and their habitat associations is given in Appendix A. The management and long-term sustainability of California's hardwood rangeland habitats will best be served if ecological components and their inter-relationships are recognized and addressed by owners and managers. This chapter provides information on oak woodland ecology

Figure 4-1. Numbers of amphibians, birds, mammals, and reptiles predicted to occur in the five California hardwood rangeland habitats by Version 5.0 of the California Wildlife Habitat Relationships System (CWHR). This list only includes those species in the CWHR System that are predicted to use one or more tree size and canopy cover classes for breeding, feeding, and/or cover.



and wildlife-habitat relationships to serve as a guide for land management activities. The presence and sustainability of specific plant and animal species on hardwood rangeland properties needs to be evaluated with scientific information.

Wildlife Habitat Relationships

Habitats are the specific locations where the factors needed for wildlife survival and reproduction are provided. Successful long-term perpetuation of California's hardwood rangeland wildlife is best achieved by managing habitats because they are the foundation on which wildlife depend. California's five major hardwood rangeland vegetation types (see Chapter 2) and associated riparian types provide habitat for the largest number of vertebrate wildlife species in the state, when compared to habitats dominated by conifers, shrubs, grasses and wetlands. Hardwood rangeland habitats must be able to supply food, water, protection from weather and predators, and locations to reproduce in order to support viable wildlife populations.

In eastern Tehama County, deer use of the lower elevation blue oak and blue oak-foothill pine woodlands are an example of wildlife habitat relationships. These areas are important winter habitat with food and cover for deer that have migrated from higher elevation conifer and meadow habitats around Mount Lassen where they spend the spring and summer to produce fawns. Their autumn migrations take them through montane hardwood habitats where they feed on acorns and browse to gain weight for the strenuous rutting period where bucks (male deer) compete for breeding opportunities. Breeding takes place during the fall and early winter on the lower elevation oak woodlands. Does (female deer) feed on acorns and herbaceous vegetation of oak woodland wintering habitats to provide energy for fawning. These activities are critical and their populations would be dramatically reduced if hardwood habitats failed to provide these key breeding, food, and cover resources.

Habitat Scale Concepts

One way to understand the management complexities of hardwood rangelands is to look at the relationships among its component parts. Wildlife biologists typically evaluate woodland habitats on five levels, providing a convenient system for explaining woodland ecology. Although each level has its applications, it is critical for you to select the management level that is appropriate for your goals. From smallest to largest, these levels are:

1. *Individual*: The interactions of individual plants or animals with their surroundings is the most tangible level of woodland ecology. Survival and reproduction are results that you can observe from the interactions of individual plants or animals.
2. *Population*: The interactions among individuals of the same species and the interactions with their woodland environment form the population level of organization. A population is typically described by the shared characteristics of its individuals, including where they occur, the range of things they eat, when and how they produce young, and how they disperse or migrate. We use this composite picture to define the wildlife habitat relationships between a species and the areas where it occurs. Although this composite picture is somewhat abstract, population data allows biologists to predict the consequences of management activities in woodlands.
3. *Community*: The interactions among species that occur together in a community form the next step in the hierarchy. Species interactions define this level; some species prey on others, some compete with each other for resources, some share resources or recycle nutrients for one another, and some interact in hundreds of other ways. Examples include a deer browsing on oak seedlings, bees pollinating wildflowers, or jays planting acorns. Community interactions are often difficult to detect, and may occur over long time periods.
4. *Ecosystem*: The physical processes and structure that link living things to each other and their ecosystem is the next level of organization. Ecosystems are often defined by their resident or dominant species, such as the hardwood rangeland vegetation types discussed previously. This level of management is somewhat abstract, with boundaries that often blend into adjacent ecosystems.
5. *Landscape*: The geographic patterns of all the other levels creates the landscape level of organization. Some aspects of landscapes are quite tangible, such as the boundaries of a watershed. Others are abstract, such as the patterns of gene flow across the oaks in the coast ranges.

If you protect a 400-year-old oak in your backyard, then you are operating at the individual level of conservation. However, it is often impractical for landowners to manage their woodlands tree by tree. If your goal is to

maintain a specific density or age distribution of oak trees on your property, then you're working at the population level. If you control exotic plants to reduce their effect on oak seedling survival, then you're altering community level interactions among your understory plants. Altering fire frequency to re-establish oak understory would be an ecosystem level of action. Finally, fires burn many different patterns across a landscape, from small patches to catastrophic sweeps of multiple watersheds. Using prescribed burning to create a mosaic of burned and unburned habitats would be a landscape management action.

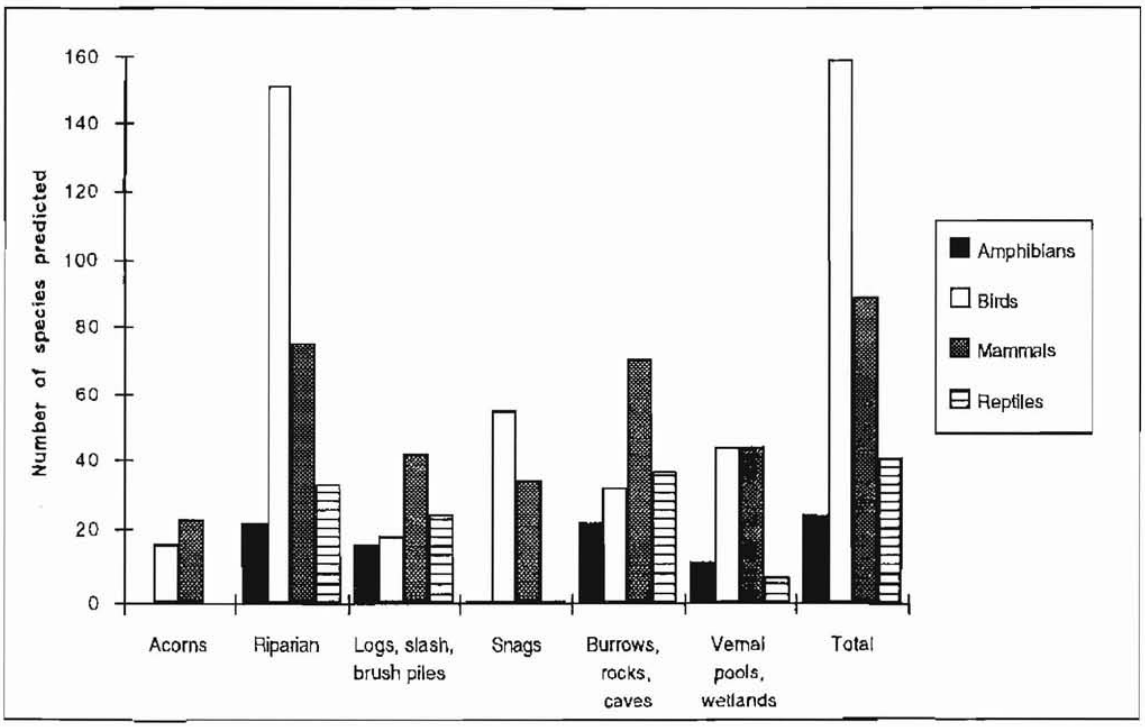
Habitat Structure

Favorable hardwood rangeland habitats supply food, water, and cover to sustain wildlife species. Each habitat element provides unique niches, favoring particular wildlife species. Conversely, the absence of a particular element in a habitat may limit species diversity.

Examples of elements of a hardwood rangeland habitat that are important to consider include riparian zones, vernal pools, wetlands, dead and downed logs and other woody debris, brush piles, snags, rock outcroppings, and cliffs. Figure 4-2 gives the relative number of wildlife species that are predicted to use various elements found on hardwood rangelands. The complete species list in Appendix A shows the specific species that are predicted to use these elements on hardwood rangeland habitats.

Riparian areas are those habitats influenced by the presence of adjacent seasonal or yearlong watercourses. They tend to have a higher biomass level of vegetation due to better water availability throughout the growing season. In general, they have higher tree crown cover, a more diverse assortment of vegetation species, and herbaceous material that stays green later into the summer. As shown, riparian habitat elements are used by almost 90 percent of all hardwood rangeland wildlife species, illustrating the importance of conserving this habitat element where present.

Figure 4-2. Number of amphibians, birds, mammals, and reptiles predicted to use several important habitat elements of California hardwood rangeland habitats by Version 5.0 of the California Wildlife Habitat Relationships System (CWHR). This list includes those species in the CWHR System that are predicted to use one or more of these elements for breeding, feeding, and/or cover.



Over one-third of all bird species on hardwood rangelands make use of snags, or standing dead trees in the stand. This suggests that management strategies to maintain an appropriate number of snags will result in greater wildlife species diversity.

Another important aspect of hardwood rangeland habitat structure is the spatial arrangement of the vegetative cover. The vertical and horizontal distribution of vegetation are both readily visible and easily measured.

Vertical Distribution

Vegetation often occurs in layers from grasses, to shrubs, to trees. This vertical layering affects the duration and intensity of light reaching the ground, which in turn, affects the insects, plants and subsequently those vertebrates dependent on them. Multi-layered habitats provide a diversity of elements offering more niches for wildlife. Most hardwood rangeland species, including California quail, western fence lizards, rufous-sided towhee and acorn woodpeckers, depend on multi-layered vegetation structure. Land managers should consider the consequences of activities that tend to simplify or eliminate vegetation layers.

Horizontal Distribution.

The distribution of different types of habitat or successional stages across a landscape creates diversity in all habitat elements needed for breeding, food and cover. Considering horizontal distribution is important for species that rely on large blocks of land, such as black-tailed deer, mountain lions, and red-tailed hawks.

Alteration of the horizontal distribution of habitats across large landscapes from fire, weather, residential development, rangeland conversion, or oak harvesting, can result in smaller, fragmented habitat patches. Small, isolated patches can eventually become *islands* of habitat that have a similar biological function to oceanic islands. The movement of populations of species isolated on these islands are restricted, so these populations are more susceptible to local extinction than populations which have free access to larger habitat patches. Less mobile species, such as many amphibians, have greater risks of local extinctions than those with greater mobility, such as bird species.

Maintenance of free interaction between reproducing adults is key to the survival of any wildlife species. Connecting patches of habitat through habitat *linkages or corridors* improves the interaction of breeding individuals between otherwise isolated populations. These linkages reduce predation and minimize impacts of harsh environmental conditions. Riparian areas often serve as linkages to hardwood rangeland habitats.

Resources Change Through Time

Important wildlife habitat attributes from oaks such as acorn-producing trees, snags, logs, and large and/or dead branches require considerable amounts of time to develop, even though they may persist for decades once they develop these characteristics. Land use practices that remove these attributes without allowing replacement will negatively alter the wildlife community. For example, it may take almost a century for most oaks to grow from acorn-produced seedlings to mature trees capable of producing abundant acorn crops. Oaks must be mature and several centuries old before they are large enough to have large diameter branches. Also, dead branches often result from heart rot which typically affects older, less healthy trees that are more susceptible to decay agents. An oak tree typically must live its entire life of several centuries before it dies and becomes a snag. Once developed, snags persist for many decades before they fall down and become logs. Logs will persist for many decades until they decay and become part of the soil. Furthermore, individual trees may produce more acorns, have more large branches, and make larger snags and logs than other trees. Therefore, trees with these desirable characteristics should be identified and retained so that wildlife communities will benefit. For example, observing acorn production of individual trees for two or three years over several weather cycles should allow most landowners to identify trees that produce large acorn crops relative to other trees on their lands (see chapter 9).

Habitat Use

The functional relationships among plants, animals and their physical environments are the foundation of ecosystems. Most wildlife species can use a variety of habitat types. The deer mouse is an example of a habitat generalist. It is thought to be the most widely distributed and abundant mammal in North America, and occurs in virtually every terrestrial vegetation type. Deer mice feed on a wide variety of plant and animal materials. They store food for use during periods of shortages, and build nests in almost any form of confined cover, such as rocks, leaves, or logs. The deer mouse can get its water from free water sources, dew, or from its food.

However, some wildlife species are so specialized that they occur in a relatively small number of habitats. The acorn woodpecker is an example of a habitat specialist. Although it has a widespread distribution, its habitat use

patterns are relatively restricted, coinciding with acorn-producing tree and shrub oaks in oak and oak-pine forests and woodlands.

Every wildlife community consists of both habitat generalists and specialists. Habitat generalists are more tolerant of a variety of land use practices than the habitat specialists. The challenge to any manager or landowner is to ensure that habitat needs are provided for all members of the wildlife community. This can be achieved by designing land use activities that ensure the continued presence of habitats and habitat elements needed by all members of the wildlife community.

For example, consider a large tract with a mosaic of oak woodlands, brush patches, riparian areas, savannas, pastures and grasslands. Cyclic, seasonal vegetation changes provide a diversity of food resources, including forbs, insects, fruits, and seeds, including acorns, that allow species with differing foraging strategies to co-exist. Birds that frequent oak woodlands throughout the year, both resident and migratory species, will partition these resources to minimize competition for them. If the necessary habitat elements are present, herbivores (plant eaters), insectivores (insect eaters), carnivores (meat eaters), omnivores (plant and meat eaters) and even highly specialized piscivores (fish eaters) can co-exist on this tract because of the way each group selects its food.

Species grouped according to a particular habit are referred to as a *guild*. (see Figure 4-3). For example, herbivorous species that eat seeds and are restricted to habitat edges are in a single guild. This includes song sparrows, California towhees, and rufous-crowned sparrows. If the necessary food and habitat elements are removed from an area, all species associated with this guild will also be removed. Similarly, insectivorous species that forage on wood would be negatively impacted if all standing and dead trees were removed from the site. Pileated woodpeckers, white-breasted nuthatches, and hairy woodpeckers are examples of species in this guild.

Wildlife use habitats at two broad levels usually defined as *macro* and *micro* levels. Management activities must consider both levels to sustain the biological integrity of hardwood rangeland habitats. The *macro*-level consists of all the habitats and their inter-relationships. *Macro*-level characteristics include habitat patch size and shape, edges with other habitats, and adjacent habitats. *Macro*-level features are used over a wide area during a time period that ranges from several weeks to several years.

Micro-level habitat characteristics are more focused on the individual features of the plants and the physical environment within an individual stand of trees. These features include species of plants, snags, rocks, water, acorns and other food items, tree size, and amount of vegetation cover. *Micro*-level elements are items an individual wildlife species uses throughout their daily and yearly cycles for breeding, feeding, and cover.

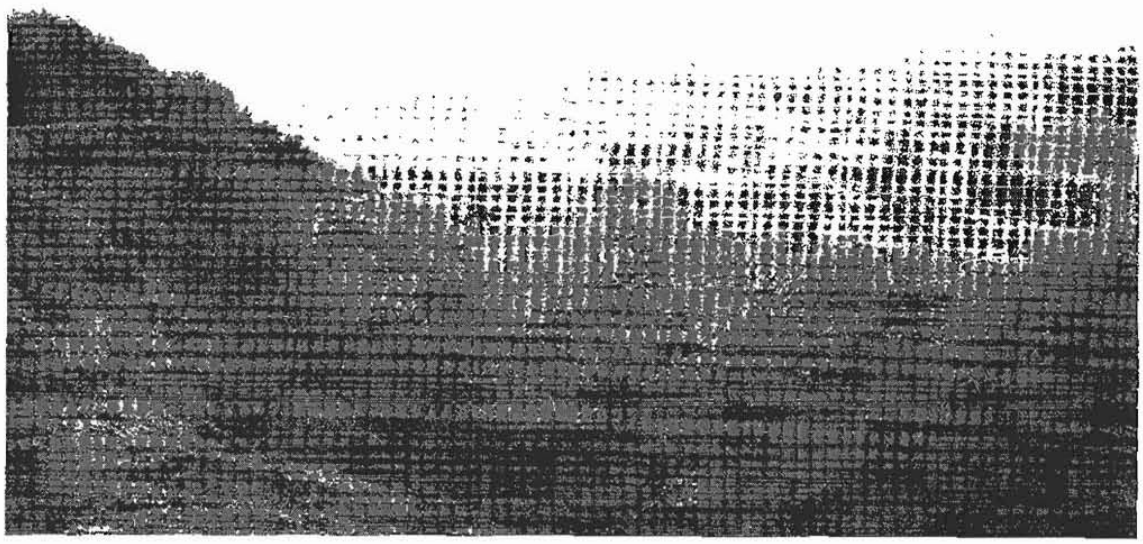
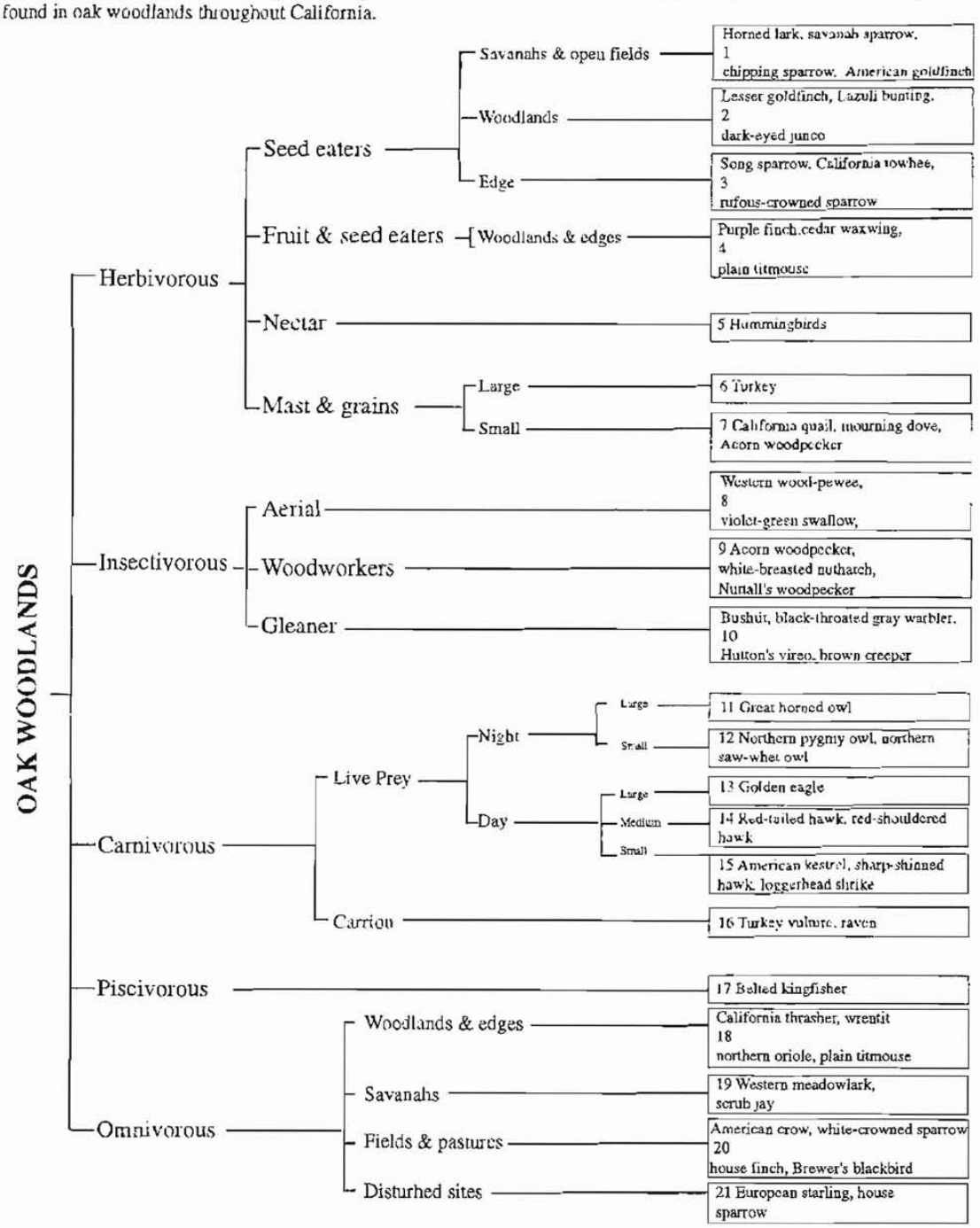


Fig. 4-3. An example of resource partitioning based on food habits of some land-dwelling birds that are commonly found in oak woodlands throughout California.



Wildlife respond to many different environmental characteristics when they select habitats to use. The three primary characteristics known to be important to many wildlife are: 1) habitat structure (e.g., size, height, amount of vegetation cover); 2) vegetation species composition; and 3) presence of *micro*-habitat elements.

Acorn woodpeckers are a good example illustrating the selection for the three broad habitat characteristics: structure, composition, and elements. They are found almost exclusively in open canopied, tree-sized habitats with substantial numbers of oaks, demonstrating selectivity in the structure and composition of their habitat. Their selection of habitats dominated by tree-sized oaks to provide live trees and snags large enough for granaries and nest cavities, demonstrates habitat selection on the basis of micro-habitat element characteristics. All three characteristics are inter-related to varying degrees, and the overall importance of a particular characteristic varies by season and geographic location.

Studies have also demonstrated the importance of habitat characteristics in California's hardwood habitats to other species. The importance of blue oak woodlands to wintering deer in Tehama County were discussed earlier in this chapter. Black bears showed greater use of habitats dominated by canyon live oak in the San Bernardino Mountains in spring, summer, and fall because these habitats provide cool environments, sufficient water, and low levels of human activity.

Wildlife habitat use changes over time and across landscapes. The migratory and wintering habitat use patterns of deer previously discussed is a good example. Black-tailed deer along the Coast Ranges are year-round residents and do not have pronounced migratory patterns. Yet, these resident deer use many habitats throughout the year, relying on oak-dominated habitats when acorns are available.

Golden eagles display fairly pronounced locational habitat use patterns. In hardwood rangelands, their nesting habitat includes area with large diameter, tall foothill pines with large branches, or tall cliffs with ledges for nests. Therefore, their nesting habitats are typically blue oak woodlands, blue oak-foothill pine woodlands, shrublands, or other habitats located in canyons or along cliffs. However, they feed in grasslands and open oak-dominated woodlands with sufficient populations of prey such as California ground squirrels, black-tailed hares, other medium-sized mammals, and ground-dwelling birds. These different nesting and feeding habitats must occur together over a large area in order to support a pair of nesting golden eagles.

Native Plants within Oak Woodlands

Oak woodlands are a diverse and dynamic ecosystem in California. In fact, for many people, oaks are a symbol of this State. Within oak woodlands, the several species of oak are the most striking plants present. But they represent only a small portion of the plant diversity which occurs in oak woodlands. As stated above, over 2,000 species of California native plants occur in oak woodlands. The scope of this book does not allow for detailed description of the many native plants of oak woodlands. For the more common plants associated with oak woodlands, refer to Appendix C. This section provides information on fundamental habitat relationships of plants that are considered to be sensitive to land use practices in oak woodlands. These species are a small, but special portion of those 2,000+ plant species that coexist with oaks.

Sensitive Plants

There are 130 known sensitive plant species that occur in oak woodlands. Sensitive is defined as plant species that are considered rare, threatened, or endangered within California, whether or not they are state or federally listed.Many of these plants are naturally rare because unique biological needs limit their distribution. Others may have been affected by human activities such that they have become rare, threatened, or endangered within California. Appendix B lists 130 sensitive plant species and their known oak habitat relationships. If a particular oak habitat exists on your property, you may have a particular sensitive plant species depending on the plants' distribution and special habitat relationships (see *Investigating the Occurrence of Sensitive Plants*)

Different Designations of Sensitive Plants

Appendix B designates sensitive species in three categories: federally listed, state listed, and California Native Plant Society (CNPS) categories 1B and 2. Eight oak woodland plant species are federally listed as threatened or endangered, while the State of California has listed 42 as rare, threatened, or endangered. The federal Endangered Species Act establishes protection for federally listed species. Plants state-listed as rare, threatened, or endangered are protected under the Native Plant Protection Act or the California Endangered Species Act. CNPS maintains an inventory that evaluates native plants on their rarity, endangerment, and distribution. This chapter lists only two of their five categories: 1B and 2. Category '1B' is defined as *rare or endangered in California and elsewhere*, while

category '2' is defined as *rare and endangered in California; more common elsewhere.* For a more thorough list of sensitive plant species and a detailed explanation of CNPS's inventory system, you may refer to the electronic or printed California Native Plant Society's INVENTORY of Rare and Endangered Vascular Plants of California (5th. Edition). You may also wish to attain a copy the California Department of Fish and Game's (CDFG) *Special Plants List.*

Investigating the Occurrence of Sensitive Plants

As stated above, the list of plants in Appendix B does not reveal whether a particular plant species does occur on your land. The table does inform you if a particular plant has been found in a particular oak habitat(s). Additionally, the table lists unique ecological characteristics of each plant species. This information is a starting point for you to determine the possibility of one or more rare plants being found on your land. In many cases, the type, periodicity, and intensity of the land use determines whether rare, native plants exist, just as is the case for wildlife.

When determining what plants occur on your land, surveying your land for all plants (*floristic* survey) allows you gain detailed knowledge about the occurrence, distribution, and abundance of all plants, whether they be oaks, common trees, shrubs, grasses, and herbs, or sensitive species. In some cases, plant survey information may already exist for your property. In addition, there are other sources of useful information. These sources would be the local university or college, the regional resource conservation district, individuals or firms involved in biological consulting, your regional CDFG Plant Ecologist or District Biologist, and CDFG's Natural Diversity Database (NDDB). NDDB maintains location information for sensitive plants, animals, and natural communities for all of California. Regional CDFG staff have access to NDDB information, and you may contact NDDB directly if you wish to investigate what is already known about sensitive plants in your area. However, if the NDDB does not include any known records of sensitive plants on your property, this is no guarantee that sensitive plants do or do not occur there. Only plant surveys can determine that.

Management of Lands for Sensitive Native Plants

In a nutshell, there is no recipe for maintaining an area's native flora. For certain species with certain needs, avoidance or minimum activity for a period of time may be crucial (i.e., removing cattle while plants are flowering and setting seed). On the other hand, management for native plants might involve a certain activity for a particular period of time (i.e., prescribed burning to allow seeds to sprout; maintaining grazing so to reduce exotic grasses which in turn allows native species to exist, etc.). Each sensitive plant has specific needs, and it is best to consult with your local botanists, field biologists, and other plant and vegetation experts when deciding on land management activities to meet your needs and the needs of the sensitive plants that may exist on your land.

A Worksheet for Evaluating Woodland Habitat Impacts

There are many ways landowners can manage their oak woodlands for wildlife or to maintain native plants. One can choose to manage on the basis of vegetation composition, percent canopy cover, or even a single wildlife species such as deer. Yet, when assessing various management enterprises, land managers should consider a broad scale approach to management. This *system-wide* management approach considers both ecological and economic effects prior to implementing a management plan. This is really just a new way of saying *"don't put all of your eggs in one basket".*

When evaluating the impacts of various management actions, there are often unforeseen consequences. It is easy to recognize the consequences of harvesting individual oaks (e.g., they become firewood), but more difficult to recognize the potential consequences at the population (e.g. loss of acorn producers), community (loss of bird nesting locations), ecosystem (increased light to forage plants), and landscape (increased edge with grasslands or loss of habitat linkages) levels. Worksheet 4-1 is provided to help assess these broader effects by examining the resources present in the area proposed for management and the anticipated changes of the proposed enterprise to the woodland ecosystem. It is suggested that you work through this process for any enterprise you are considering, to allow you to assess the concepts presented in this chapter.

This worksheet is designed to help assess the impact of the proposed hardwood rangeland enterprise on a particular habitat element. In column one of the worksheet, you should assess the particular habitat element in the area proposed for a particular enterprise. Column two is used to describe how significant that element in the enterprise area is in relationship to the broad region or landscape surrounding the enterprise area. Column three

is used to describe anticipated changes that are expected to occur as a result of the particular enterprise. Column four is used to list the anticipated regional impacts expected as a result of undertaking a specific enterprises. In order to undertake this exercise, you will need a map of your property and basic knowledge of its resources. It is best to have an aerial photograph of your land and the surrounding landscape, but you may use other estimates if a photograph is unavailable. The material you have developed from chapter 3 will help you get started. Instructions on the use of the worksheet and definitions of terms used will follow.

The Potential Impacts of Development on Wildlands in El Dorado County, California[1]

Shawn C. Saving[2] and Gregory B. Greenwood[3]

Abstract

We modeled future development in rapidly urbanizing El Dorado County, California, to assess ecological impacts of expanding urbanization and effectiveness of standard policy mitigation efforts. Using raster land cover data and county parcel data, we constructed a footprint of current development and simulated future development using a modified stochastic flood-fill algorithm. We modeled combinations of constraints from the 1996 County General Plan and parcel data—slope, stream buffers, oak canopy retention, existing development, public ownership, regional clustering, and acquisition programs—and overlaid development outcomes onto the land cover data. We then calculated metrics of habitat loss and fragmentation for natural land cover types. Rural residential development erodes habitat quality much more than habitat extent. Policy alternatives ranging from existing prescriptions to very restrictive regulations had marginal impact on mitigating habitat loss and fragmentation. Historic land parcelization limits mitigation of impacts by the current General Plan prescriptions that only apply when a parcel requires subdivision before development. County-wide ordinances were somewhat more effective in preserving habitat and connectivity. These solutions may not offer enough extra protection of natural resources to justify the expenditures of "political capital" required for implementation. Custom, parcel based acquisition scenarios minimized habitat loss and maximized connectivity. Better analysis of public policy and planning design may be a more effective "smart growth" tool than generic policy prescriptions.

Introduction

The California Department of Finance projects the State's population to increase from 34 million to over 45 million by the year 2020 (California Department of Finance 2001). During the past 20 years, the spatial distribution of California's population has also changed as more people moved to the periphery of the dense Los Angeles and San Francisco Bay metropolitan areas and to the historically lower density Central Valley and Sierra Nevada foothills (U.S. Census Bureau 1991, 2001). Since the eastern half of many of these Sierran counties is predominantly national forest above 1,500 meters, the vast majority of this additional population will reside in the lower elevation foothills, a region dominated by oak hardwood savannah. The hardwood rangeland region of the Sierra, extending from 100 to 1,500 meters in elevation, is almost exclusively privately owned and has historically been used for grazing and some dryland farming (Duane 1996, Greenwood and others 1993). The switch from large parcel, low to moderate intensity agriculture to small parcel, high intensity urban and ex-urban land use promises great change to the natural

[1] An abbreviated version of this paper was presented at the Fifth Symposium on Oak Woodlands: Oaks in California's Changing Landscape, October 22-25, 2001, San Diego, California.

[2] GIS Specialist, Fire and Resource Assessment Program, Department of Forestry and Fire Protection, State of California, 1920 20th St., Sacramento, CA 95814.

[3] Science Advisor, Resources Agency, State of California, 1416 9th St., Sacramento, CA 95814.

ecosystems of the foothills region. These 5-acre to 40-acre ranchettes will likely contain the majority of naturally functioning hardwood landscape in the near future.

One such region of rapid change is El Dorado County in the Central Sierra Nevada Mountains. We conducted a policy analysis of the El Dorado County General Plan by modeling development in the western, foothill portion of the county. We were interested in two topics: 1) ecological impacts on wildland habitat resulting from expanding urbanization under the County's General Plan; and 2) the effectiveness of commonly proposed land use policy initiatives to mitigate those impacts. Several models exist for projecting development expansion at the county and regional scale (Landis 1994, 1995, 1998a, 1998b; Johnston 2000, 2001; US Environmental Protection Agency 2000). These models focus on dense urban development (1 - 2 acre parcels or smaller) using economic formulas of land values and empirically derived "attractors" of development such as proximity to existing infrastructure (roads, sewer, water, etc.) to guide development probabilistically and incrementally over time. However, in rural areas (5 - 40 acre parcels), where attractors are less obvious or more difficult to model, or where tractable economic factors are not the primary drivers behind development decisions, these models generally ignore rural development or resort to random allocation (Johnston 2001). In El Dorado County, the General Plan designates 23 percent of the county for development in this rural density range. In order to adequately predict impacts in these regions, we needed to place the existing and potential footprint of development as explicitly as possible. We developed a cell-based, empirical model that characterizes development patterns from existing development and then extends those patterns across the landscape onto vacant lands. Because we were primarily concerned with the relative impacts of the county's General Plan and alternative policy proposals, we chose to extend development to full "buildout" of the General Plan, approximately a 20-year time horizon, rather than incorporating an economic component which might allow the phasing of development over time.

We began by determining where development existed in 1996, the most recent year for which digital parcel data were available. We then predicted where development would be at full buildout of the General Plan under various scenarios (e.g., uncontrolled vs. smart growth, strict vs. loose environmental land use policy, and combinations thereof). For any given scenario, our model can assess the implications for a variety of issues ranging from natural ecosystem functions to local and regional economies to general quality of life. At present, we have analyzed a wide range of land use policies in the County and their relative impacts on two major areas of concern, wildland habitat quality (characterized by extent, fragmentation, and configuration) and economic costs and losses due to wildfire. This paper presents our research on the former.

Study Area

El Dorado County is a predominantly rural county in the Central Sierra region of California stretching from the floor of the Central Valley east of Sacramento to the crest of the Sierras and the southern portion of Lake Tahoe (mean latitude 38.75° N, mean longitude 120.5° W). The county's 463,500 hectares cover a wide diversity of habitats including low elevation annual grasslands and blue oak (*Quercus douglasii*) savannah at the western edge, mid-elevation oak woodlands and mixed oak-conifer-shrub complexes in the central region, and Sierran mixed conifer forest dominated by

Figure 1—Location of study area with major highways and cities.

ponderosa pine (*Pinus ponderosa*), Jeffrey pine (*Pinus jeffreyi*), and lodgepole pine (*Pinus contorta*) in the eastern half. According to the 2000 Census (U.S. Census Bureau 2001), 156,299 people lived in El Dorado County at an overall density of 33.7 persons/km^2. However, because the eastern half of the county is almost entirely national forest except for settlements on the southern littoral edge of Lake Tahoe, the average density for private lands is 63.3 persons/km^2. Housing density is 28.9 units/km^2. Our study area encompasses 220,954 ha and is restricted to the predominantly privately owned western foothills region of the county (*fig. 1*).

From the time Gold Rush pioneers settled in the 1850s, the population of El Dorado County fluctuated between 6,000 and 20,000 people until the 1950s. Since that time the decadal growth rate has ranged from 20 percent to 100 percent, with growth rates of 46.8 percent and 24.0 percent in the 1980s and 1990s, respectively (U.S. Census Bureau 1991, 2001). State Department of Finance projections indicate this magnitude of growth continuing for the next two decades resulting in 252,900 residents by 2020 (California Department of Finance 2001).

Methods

Study Design

The purpose of this study was to evaluate the potential impact of El Dorado County's General Plan on wildland habitat in the county (primarily oak woodland) and how policy alternatives might mitigate these impacts. We modeled several

alternative scenarios, three iterations each, by varying one or more of the General Plan prescriptions, as well as the possible spatial configuration of future development (*table 1*), and overlaying the resulting footprint of development onto the land cover data and measuring the core extent, fragmentation and configuration of wildland. As we intended this work to be directly relevant to issues facing the county, many of these scenarios were devised from suggestions by residents and county officials. Thus, we did not attempt to analyze every possible combination of variables, especially as it became apparent that one of them was not proving to be effective in mitigating the impacts on wildland.

We used three main geographic information system (GIS) datasets as inputs: 1) 1990 Hardwood Rangelands Pixel Data (Pacific Meridian Resources 1994) for land cover and current footprint of development (*fig. 2a*); 2) 1996 County Assessor's parcel data for land tenure information; and 3) 1996 Adopted County General Plan for future potential development densities (*fig. 2b*). We converted the parcel and General Plan data to 25 m raster grids and snapped them to the Hardwoods data. We conducted all spatial modeling with ESRI's ARC/INFO and GRID software (vers. 7.1.1 - 8.1) on UNIX workstations except the fragmentation metrics, which we calculated using APACK v. 2.15 (Mladenoff and DeZonia 2000) on a Windows2000 operating system. An in-depth detail of our methodology has been previously published on the CDF-FRAP website (Greenwood and Saving 1999). Here, we present only a basic overview.

Creating the Footprint of Development

In order to model future development, we first had to construct a pixel-based *footprint of current development* which showed as explicitly as possible where structures and other human disturbances to the natural landscape exist. Remote sensing-based pixel data, such as the Hardwoods data, serve this purpose to some degree, especially in rural areas (Merenlender and others 1998, Ridd and Liu 1998), but provide no context of land use. Such data also miss development obscured by tree canopy and tend to confuse some urban and non-urban land cover types (e.g., rock outcrops and concrete) (Bruzzone and others 1997, Fisher and Pathirana 1990, Quarmby and Cushnie 1989). From the parcel data we determined the land use of each parcel and thus derived two binary layers—development status (*developed* or *vacant*) and intensity of use (*intense* or *not intense*) at the parcel level. For *developed* and *intense* parcels smaller than 1 hectare (2.5 acres), we included the entire parcel in the footprint. However, for larger parcels we turned to the Hardwoods data to identify specific areas of human disturbance within the parcel. We compared the classes Urban and Other (U/O) from the Hardwoods data to the development status of the parcel data. Where a U/O pixel(s) existed inside a *developed* parcel, we included those U/O pixels in the *footprint of current development*. Where a U/O pixel(s) existed in a *vacant* parcel, we considered those pixels "false positives" and did not include them in the *footprint of current development*, although they did remain in the land cover layer as Barren. For *developed* parcels with no U/O pixel(s), we simulated a pattern of development in the parcel using the same technique to project future development patterns (see below). Thus, we created a picture of current development composed of three elements: 1) small, intensely used parcels; 2) scattered pixels of development in larger parcels; and 3) stochastically placed pixels in developed parcels within which we could not determine the explicit location of development (*fig. 2c*).

Table 1—*Descriptions of the combinations of restrictions used for each scenario tested.*

	Slope/Stream Restrictions			Canopy Retention[1]			Other Restrictions			Total Area (ha)
Scenario	Description	Extent	Area (ha)	Description	Extent	Area (ha)	Description	Extent	Area (ha)	Restricted[6]
500	Present Condition	-	-	-	-	-	-	-	-	-
503	25 m stream setbacks, < 40% slope	subdiv.	19,567	as per GP	subdiv.	5,980	-	-	-	122,774
504	25 m stream setbacks, < 40% slope	all	26,983	as per GP	subdiv.	5,980	-	-	-	128,389
505	50 m stream setbacks, < 40% slope	subdiv.	23,319	as per GP	subdiv.	5,980	-	-	-	125,988
506	50 m stream setbacks, < 40% slope	all	31,819	as per GP	subdiv.	5,980	-	-	-	132,694
507	25 m stream setbacks, < 40% slope	subdiv.	19,567	as per GP	subdiv.	5,980	Clustering[3]	LDR, subdiv.	12,526	122,774
508	25 m stream setbacks, < 40% slope	subdiv.	19,567	as per GP	subdiv.	5,980	Clustering[4]	LDR, subdiv.	12,526	122,774
509	25 m stream setbacks, < 40% slope	subdiv.	19,567	Increased[2]	subdiv.	7,096	-	-	-	123,920
513	25 m stream setbacks, < 40% slope	subdiv.	19,567	as per GP	all	6,409	-	-	-	123,368
514	25 m stream setbacks, < 40% slope	all	26,983	as per GP	all	6,409	-	-	-	128,944
515	50 m stream setbacks, < 40% slope	subdiv.	23,319	as per GP	all	6,409	-	-	-	126,564
516	50 m stream setbacks, < 40% slope	all	31,819	as per GP	all	6,409	-	-	-	133,217
520	50 m stream setbacks, < 40% slope	all	31,819	as per GP	all	6,409	Clustering[4]	LDR, subdiv	12,526	133,127
543	25 m stream setbacks, < 40% slope	subdiv.	19,657	as per GP	subdiv.	5,980	Acquistion[5]	AOC	2,071	124,513

[1] Canopy retention restricts development by limiting the amount of development. In most cases, this does not mean complete restriction but rather a reduction in density only (*table 2*). See Greenwood and Saving, 1999.

[2] For details, see Greenwood and Saving, 1999.

[3] Proportion (B) of developed cells increased from 9% to 14%. Adjacency (C) increased from 55% to 95%.

[4] Proportion (B) of developed cells increased from 9% to 14%. Adjacency (C) increased from 55% to 98%.

[5] We manually selected parcels to be restricted from development in Areas of Concern (AOC).

[6] Includes all restrictions plus existing *developed* parcels, parcels *closed to development*, public ownership, and areas designated Open Space (OS) in the General Plan.

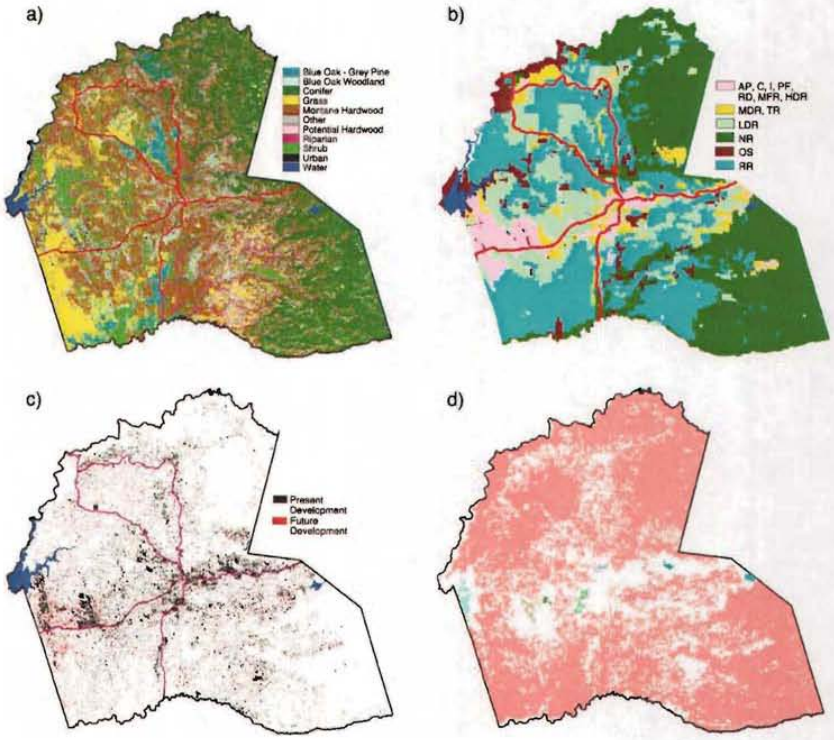


Figure 2—a) Land cover types from 1990 Hardwoods Pixel Data (Pacific Meridian Resources 1994), b) 1996 El Dorado County Adopted General Plan land use classes collapsed to 6 categories (see *table 2* for land use codes), c) footprint of current and future development under General Plan scenario (503), and d) map of current wildland habitat in the study area.

The first step in creating the *footprint of future development* required knowing where development could *not* occur. From the General Plan we derived a restriction status for each parcel. A parcel was *closed to future development* if it were already developed and already at the minimum allowable lot size for that General Plan density class. Alternatively, a parcel was *open to development with restrictions* imposed by the General Plan (i.e., discretionary permit review) if it were *developed* or *vacant* but at least twice as large as the allowable minimum lot size, meaning the lot could be further subdivided. Finally, a parcel was *open to development without restriction* (i.e., ministerial review) if it were *vacant* and already at the minimum allowable lot size for that General Plan density class and therefore could not be subdivided further.

The General Plan contained three major restrictions applying to discretionary permit review that we were able to model spatially – 25 m (1 pixel) stream setbacks,[4]

[4] The Adopted General Plan calls for 100' stream setbacks. Since our model is raster based, we used a one pixel (25 m) buffer as the closest estimate.

Table 2—*Canopy retention guidelines from Adopted General Plan. Values represent percentage of canopy that must be retained for each combination of General Plan Land Use Class and Current Oak Canopy Closure percentage. Where 100 percent of the canopy must be retained, no development can occur on oak pixels.*

	Current oak canopy closure (pct)				
General Plan land use class	**≤ 19**	**20-39**	**40-59**	**60-79**	**80-100**
Multi-family Residential (MFR)	90	85	80	70	60
High Density Residential (HDR)	100	90	80	70	65
Medium Density Residential (MDR)	100	90	80	70	65
Low Density Residential (LDR)	100	100	90	85	80
Rural Residential (RR)	100	100	100	95	90

no development on slopes over 40 percent, and an oak canopy retention guideline based on the density class of development and the existing canopy cover (*tables 1, 2*). We created a separate mask for each of these restrictions which could be turned on or off or, in order to simulate an ordinance, be applied to all parcels *open to development* regardless of restriction class. We also created similar masks reflecting 50 m stream buffers and increased canopy retention. Lastly, some areas were off limits to development in every scenario—areas classified as Urban or Other in the Hardwoods data, parcels that were *developed* and *closed to future development*, public lands, private reserves, easements, and open space designated in the General Plan.

Once we determined where development was allowable, we then determined the spatial configuration of development at the 25 m pixel scale. McKelvey and Crocker (1996) developed a stochastic flood-fill algorithm to create theoretical landscapes burned by fire using two aspects of spatial configuration—proportion (B) of landscape burned by fire, and the spatial adjacency (C) of the burned pixels. Adjacency is defined as the probability that if a cell is burned, an adjacent cell is also burned.[5] We modified their algorithm to create binary neutral landscapes that mimic the development patterns for each housing density class in the General Plan. By overlaying the Urban and Other pixels from the Hardwoods data onto classified 1990 Census block housing density data, we calculated proportion (B) and adjacency (C) for landscapes settled at different densities. The proportion of Urban and Other pixels ranged from 27 percent for housing density classes greater than 1 unit/acre down to 3 percent for density classes less than 1 unit/40 acres (*table 3*). Adjacency values varied to a lesser degree, ranging from 62 percent to 50 percent over the same housing density range (Greenwood and Saving 1999). By masking non-developable areas and inserting portions of these theoretical landscapes into the appropriate General Plan density region, we created potential *footprints of future development* for the study area (*fig. 2c*).

[5] McKelvey and Crocker refer to the adjacency measure (C) as contagion. To avoid confusion with the contagion indices of O'Neill and others (1988) and Li and Reynolds (1993), we have chosen to use the term adjacency.

Table 3—*General Plan land use classes and allowable lot sizes with proportion of cells (B) from the Hardwoods data classified as Urban or Other and likelihood of adjacency (C) of Urban and/or Other cells.*

General Plan land use class	Allowable lot size (ac)	Proportion of urban or other cells (B)	Probability of adjacency (C)
Multi-family Residential (MFR), High Density Residential (HDR)[1]	<= 1	0.27	0.62
Medium Density Residential (MDR)[2]	1 - 5	0.14	0.61
Low Density Residential (LDR)	5 - 10	0.09	0.55
Rural Residential (RR)	10 - 40	0.06	0.55
Natural Resources (NR)	40 - 160	0.03	0.50

[1] Includes these General Plan Land Use Classes - Adopted Plan (AP), Commercial (C), Industrial (I), Public Facilities (PF), and Research and Development (RD)
[2] Includes Tourist Recreation (TR)

For most scenarios, we assumed the spatial configuration of development for a given density class would not be significantly different in the future than at present. In other words, the values of B and C for a given density class did not change. However, the model did not limit us to this assumption. The General Plan allows for the doubling of total housing density in the Low Density Residential (LDR) class (5 - 10 acre parcels) if the development is highly "clustered." Our landscape generator allowed us to easily simulate how this development pattern might appear (scenarios 507 and 508). We created two clustered density patterns for LDR by increasing B from 9 percent to 14 percent to simulate the density bonus, and by increasing C from 55 percent to 95 percent and 98 percent to simulate clustering (*table 1*).

Quantifying Impacts to Wildand Habitat

For this analysis, we defined *habitat* as all land cover types in the 1990 Hardwoods Pixel Data that were not Urban, Other, or Water. We combined Urban and Other pixels, along with developed cells from the *footprint of future development*, into one class called *developed*. Water was masked from the analysis environment. We defined *wildland habitat* as *habitat* more than 50 m (2 pixels) from a *developed* pixel, in patches greater than 100 hectares and containing no constrictions, or narrow necks, of *wildland habitat* narrower than 50 m. *Urban habitat* were those areas of natural vegetation within 50 m of a *developed* pixel. *Marginal habitat* were all areas not defined as *urban* or *wildland habitat* (narrow constrictions or patches less than 100 hectares, and > 50 m from *developed* pixels). This overlay of the footprint of development onto the natural land cover creates a landscape mosaic of *wildland*, *marginal* and *urban habitats*.

A quick review of the landscape ecology literature reveals many highly specialized metrics for capturing specific characteristics of a landscape. Several studies (Hargis and others 1999; McGarigal and McComb 1995, 1999; Ritters and others 1995; Tinker and others 1998) have shown that the simplest, most basic measures are the easiest to understand and serve well to compare and contrast landscapes. We calculated the following fragmentation metrics for wildland habitat for each scenario—total area, number of patches, mean patch size, largest patch size, mean shape index (Frohn 1998, McGarigal and Marks 1995, Ritters 1995), corrected

mean perimeter/area (P/A) ratio (Baker and Cai 1992), and total edge density. Ritters (1995) inverts McGarigal and Marks' (1995) mean shape index for raster data, calling it "average normalized area, square model," to make the values range from 1.0 for a perfectly square patch to 0.0 for patches that are long and narrow. The APACK software calculates Ritters' metric. As this metric measures the same landscape attribute as McGarigal's mean shape index (shape complexity - patch shape relative to a square), we have chosen to use McGarigal's name, mean shape index, when referring to it rather than Ritters' more cumbersome moniker. Although these metrics provide an objective means of comparing landscapes, they do not quantify all aspects of landscape configuration. Therefore, we also assessed model results through visual inspection of the output maps of *wildland habitat* extent.

Results

General Plan

Figure 2d shows the present extent of *wildland habitat* in the study area. The dominant feature of the landscape is a single patch of wildland (mean area of three iterations, 159,535 ha) that extends across the county from north to south and bridges the Highway 50 corridor. The influence of development is substantial yet would appear not to have significantly disrupted the contiguity of wildlands outside of the Highway 50 corridor and the communities of Pilot Hill and Georgetown. *Figure 3a* shows how the county's wildlands might appear if the General Plan were completely built out (scenario 503). The most apparent impact is the increase in number of patches and the cleaving of the wildland into distinctly separate northern and southern regions. Compared to present conditions, mean number of patches per iteration double from 10.0 to 19.67 and mean patch size accordingly drops from 16,182 ha to 6,337 ha (*table 4*). Mean largest patch size similarly declines to 59,603 ha. As patch sizes drop, measures of total edge density and corrected perimeter-to-area (P/A) perforce increase. Mean total edge density rises from 46.6 m/ha to 68.4 m/ha while mean corrected patch P/A ratio increases from 8.97 to 9.76. Mean shape index decreases from 0.070 to 0.043 indicating that not only does wildland shrink and fragment, it also becomes more complex spatially due to low density development perforating the existing wildland matrix. It is important to note, however, that the significant loss of wildland does not mean that large portions of the county have been paved over. While the mean loss of wildland is 23 percent, only 4.5 percent of wildland is actually converted to urban use. For oak woodland land cover types, 40 percent of wildland becomes *marginal* or *urban* woodland but only 4 percent is physically lost to development. In other words, areas that once functioned under a more natural state and presumably provided functional habitat for species are degraded, either due to proximity to urban land uses or by isolation from larger patches of contiguous natural vegetation.

Table 4—*Mean values of wildland habitat landscape metrics for three iterations of the Present Condition (500) and General Plan (503) scenarios.*

	Present condition scenario 500	General Plan scenario 503
Total area	161,825 ha	123,267 ha
Number of patches	10.00	19.67
Mean patch size	16,182 ha	6,337 ha
Largest patch size	159,535 ha	59,603 ha
Mean shape index	0.070	0.043
Mean patch P/A ratio, corrected	8.974	9.762
Total edge density	46.57 m/ha	68.38 m/ha

General Plan Alternatives Increased Development Restrictions

Figure 3 (*b-d* and *g-k*) shows extents of wildlands for the General Plan alternatives meant to mitigate impacts through increased restrictions to development. The most noticeable aspect of the maps is their similarity to the General Plan scenario. The north and south patches remain highly separated in all scenarios except for scenario 543 where a few small patches come close to reconnecting the north and south patches. The differences become more apparent when the metrics are examined. All scenarios maintain a greater area of wildland than the General Plan. Scenarios that increase the areal extent of development restrictions (504, 505, 506, 509, 513, 514, 515, 516) generally indicate a decrease in fragmentation (mean number of patches decreases slightly and mean patch size increases slightly) (*fig. 4*). However, the range for number of patches and mean patch size for these scenarios is high, indicating site-specific sensitivity to placement of development. Scenarios 506 and 516 show the greatest increase in wildland mean total area (126,716 ha and 126,877 ha, respectively) and mean largest patch size (60,906 ha and 61,105 ha, respectively). Scenarios 506, 509 and 516 have the highest mean patch sizes (6,805 ha, 7,021 ha, and 6,952 ha), although 509 has a large range (1,238 ha). These results are consistent with those expected as the scenarios 506 and 516 restrict the largest amounts of land from development (132,694 ha and 133,217 ha, respectively). Patch shape complexity shows little difference in all scenarios as mean shape index remains virtually unchanged as does the mean corrected patch P/A ratio. Mean total edge density declines slightly with 506 and 516 having the greatest decrease (67.02 m/ha and 67.00 m/ha, respectively).

General Plan Alternatives Development Clustering

For scenarios 507 and 508 we examined the efficacy of clustering development for mitigating wildland habitat loss. For General Plan density classes of Low Density Residential (LDR), we increased adjacency (C) values to 95 percent and 98 percent, respectively. Because the General Plan allowed for a density bonus to the next higher density class, Medium Density Residential (MDR), we also increased the proportion (B) of developed pixels in LDR from 9 to 14 percent for both scenarios. Neither scenario shows a demonstrable increase in wildland habitat retention over the General Plan scenario, while some metrics indicate increased fragmentation. Mean

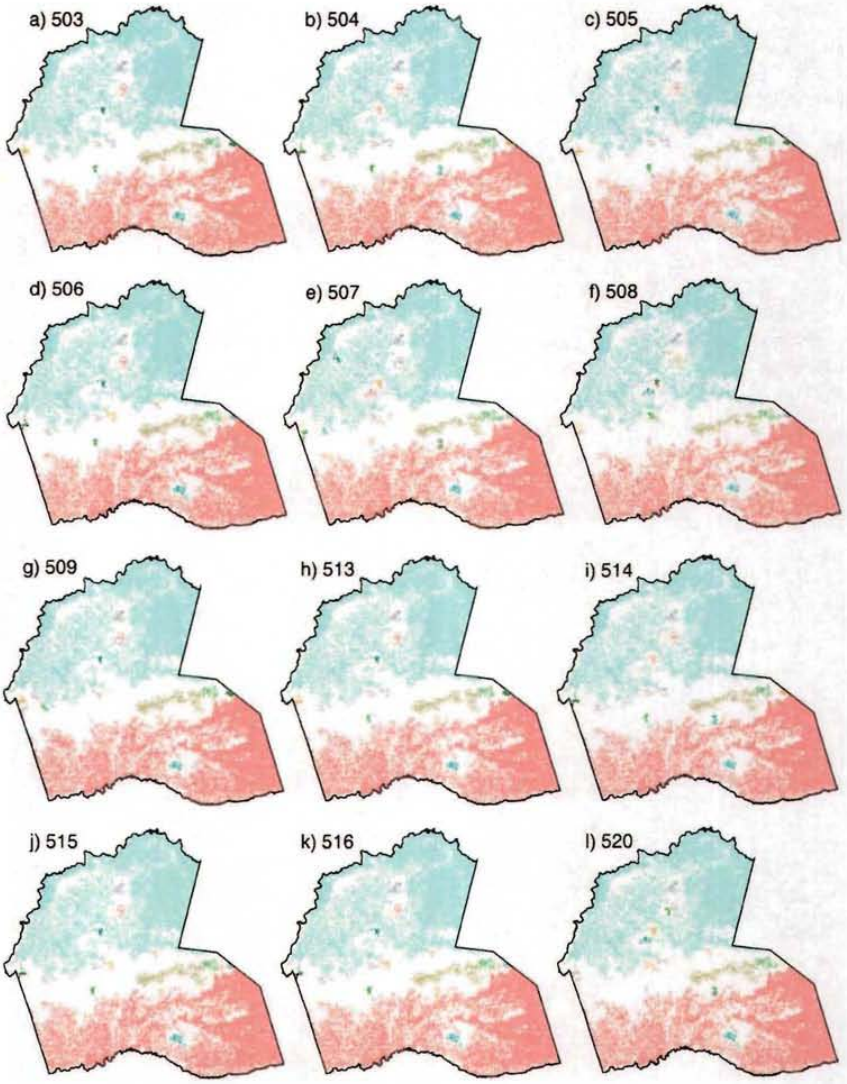


Figure 3—Maps of wildland habitat after full buildout for all scenarios. Areas of the same shade are a contiguous patch.

total area for scenario 507 (123,310 ha) is virtually the same as the General Plan and only slightly higher for scenario 508 (123,831 ha) (*fig. 4*). Mean largest patch size (507 = 59,502 ha, 508 = 59,847 ha) and mean corrected patch P/A ratio (507 = 0.044, 508 = 0.047) show similar behavior while mean total edge density does decrease slightly for 508 (67.39 m/ha). Mean number of patches (507 = 20.67, 508 = 19.0) remains within the range of values of those of the General Plan. Mean patch size actually goes down for 507 (5,979 ha) and remains unchanged for 508 (6,517 ha).

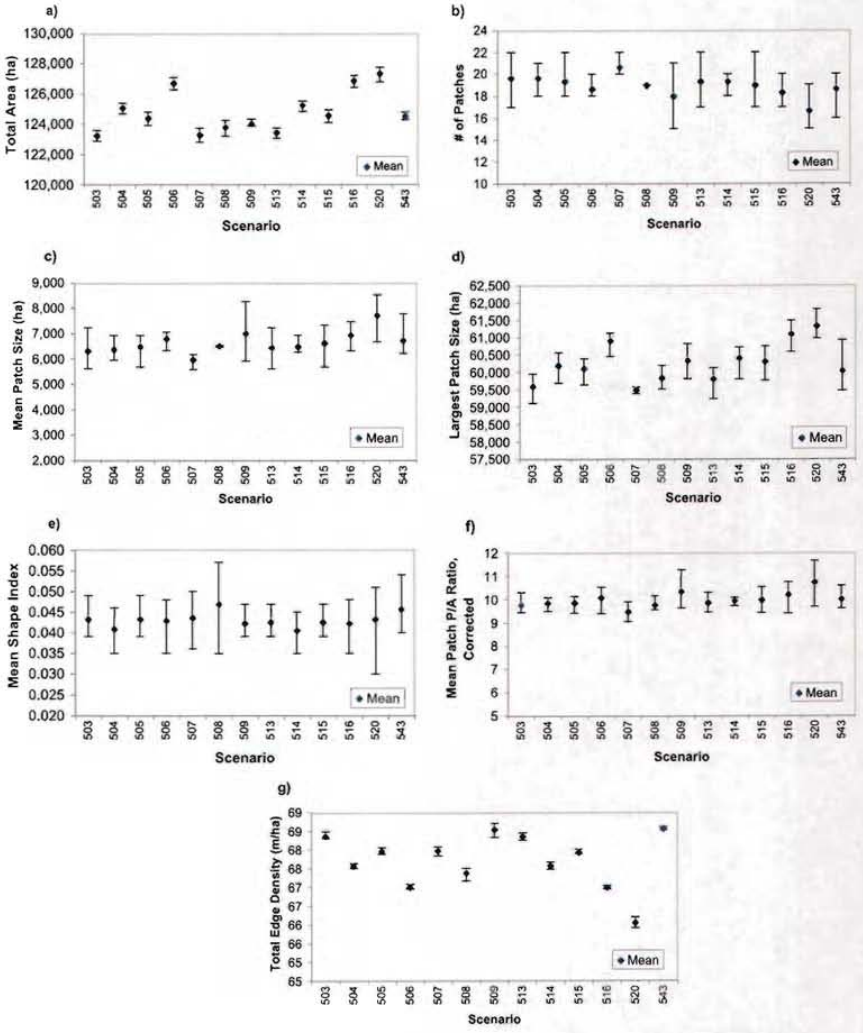


Figure 4—Values of wildland habitat landscape metrics for three iterations of the General Plan scenario (503) and alternatives (504-543). a) total area, b) number of patches, c) mean patch size, d) largest patch size, e) mean shape index, f) mean patch P/A ratio, corrected, and g) total edge density.

One of the iterations for scenario 508 has the highest mean shape index of all scenarios (0.057) but another iteration of 508 has the second lowest (0.035). Neither scenario was effective at maintaining the north-south connection (*figs. 3e, 3f*).

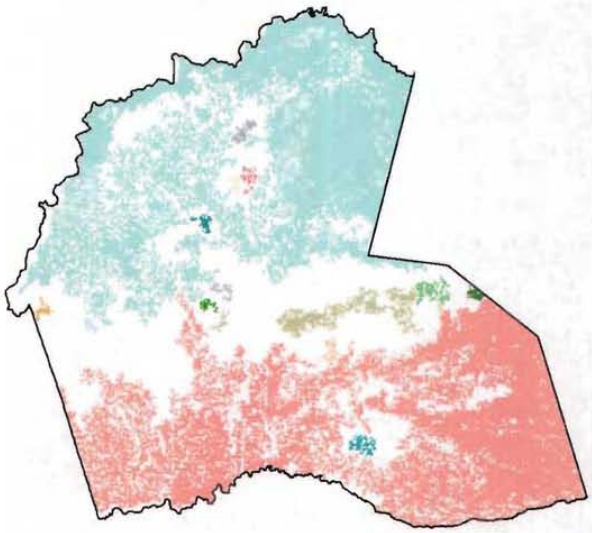


Figure 5— Map of wildland habitat after full buildout for parcel acquisition scenario (543).

General Plan Alternatives "Kitchen Sink" and Planned Acquisition

Given that scenarios 504-516 were ineffective at increasing wildland habitat retention over the General Plan scenario or at maintaining the north-south connection, we tested two additional approaches. Scenario 520, dubbed the "Kitchen Sink" scenario, combined all of the most restrictive policies yet tested – 50 m stream buffers, 40 percent slope restriction, oak canopy retention for all developable land regardless of restriction status, plus clustering as per scenario 508 (B = 14 percent, C = 98 percent) (*table 1*). In contrast, Scenario 543 took a completely different approach leaving all original General Plan restrictions intact but expanding the area of non-developable land by restricting select parcels from development in key areas of concern. This scenario simulates a planned acquisition approach through the use of easements and/or outright purchase of development rights by the county. We selected several vacant parcels in the Indian Creek canyon area where it crosses Highway 50 between Placerville and Shingle Springs in an attempt to reconnect the northern and southern portions of wildland. In those selected parcels, we only restricted development on oak pixels and areas within 50 meters of oak pixels. This left some parcels still potentially developable.

As expected, scenario 520 retains the highest mean total area (127,376 ha) of wildland because it restricts the greatest area of land from development (133,217 ha) (*table 1*). Mean number of patches (16.67) is the lowest for all scenarios and subsequently mean patch size (7,721 ha) is the highest (*fig. 4*). Mean largest patch size (61,332 ha) is also the highest of all scenarios. Shape complexity does not

decrease, however. Shape index is the same (0.043) as the General Plan scenario and mean corrected patch P/A ratio is the highest of all scenarios (10.74). In contrast, mean total edge density is the lowest of all scenarios (66.1 m/ha). Scenario 520 also does not come close to maintaining the north-south connection (*fig. 3l*).

As we made no attempt to preserve amount, but rather configuration, of wildland, scenario 543 only preserves an average of 1,296 more hectares than the General Plan (mean total area = 124,563 ha) and actually has slightly more average patches (20.0) and a smaller mean patch size (6,229 ha) (*fig. 4*). However, mean shape index is the second highest for all scenarios (0.046) while mean corrected patch P/A ratio is only slightly better than the General Plan (10.013). Mean total edge density is the same as the General Plan (68.57 m/ha). Most importantly, however, scenario 543 comes the closest of all scenarios to maintaining a connection between the northern and southern wildland patches (*fig. 5*).

Discussion

Our study demonstrated that the General Plan for El Dorado County will not allow the county to become one giant suburban subdvision. The General Plan allocates 43.0 percent of private land to development in the 1 unit/5 acre to 1 unit/40 acre density range (LDR and RR). Moreover, only 4 percent of the existing oak canopy will actually be removed by, or converted to, development. However, the configuration of this development is of concern as full buildout could force as much as 40 percent of the County's existing *wildland* oak woodlands into *marginal* or *urban* habitats. When counties are faced with such impacts, a popular mitigation approach is to implement prescriptions in the General Plan that regulate, and/or limit, how and where development can occur (e.g., stream setbacks, slope restrictions, etc.). However, such prescriptions can only apply to development that will undergo discretionary permit review, that is, parcels that have yet to be subdivided to the smallest allowable density in the General Plan. In the case of El Dorado County, 31 percent of *vacant* land that is *open to development* in the county (86 percent of parcels) had been subdivided prior to the adoption of the General Plan and is therefore not subject to these prescriptions. These parcels only require ministerial review (i.e., a building permit) before construction can occur. To impose a restriction that would regulate where development could occur in those parcels would require a county-wide ordinance. Our model allowed us to test both alternative General Plan prescriptions and county-wide ordinances. The former had little effect decreasing wildland habitat loss or fragmentation over existing General Plan policies. We attribute this to the large portion of the county not subject to the prescriptions due to prior subdivision. Ordinances showed greater wildland retention over the General Plan but that increase was still small. Scenario 516, the most restrictive ordinance scenario, only preserved 3,610 hectares more wildland than the General Plan and made little difference to patch configuration, shape complexity or edge density. The political expense in implementing ordinance-type solutions would seem to far outweigh the potential ecological benefits to oak woodlands.

Clustered development is a popular prescription proposed by the smart growth community. By holding overall density constant for an area but decreasing the space between structures, less space is scattered between structures which could otherwise serve as habitat and perform other ecosystem functions. The perceived advantages are so great that in order to promote clustering, El Dorado County offers a density

bonus for clustered development in the Low Density Residential category (5 - 10 acre parcels). We modeled two clustering scenarios allowing densities to increase to the Medium Density Residential level (1 - 5 acre parcels). Neither scenario improved wildland habitat condition over the General Plan and some metrics for scenario 507 (mean number of patches, mean patch size and largest patch size) were actually worse. The increase in density, and therefore the increase in the amount of land developed, offset any benefit that would be gained from clustering. Furthermore, clustering can only occur in *vacant* parcels *open to development with restriction* in LDR. This occurs only in a few small areas in the northern portion of the county.

Scenario 520, the Kitchen Sink scenario, employed the strictest policy restrictions we tested, plus clustering. Looking solely at the fragmentation metrics (*fig. 4*), this scenario offered the most improvement in wildland habitat condition over the General Plan. Yet when examining the maps, we did not notice any significant difference in wildland amount or configuration (*fig. 3l*). Most notably, the north-south separation was still very pronounced. Implementing county-wide ordinances which mandate 50 m stream buffers, 40 percent slope restrictions and oak canopy retention on all undeveloped parcels, plus requiring clustering in LDR, is highly unrealistic, not to mention, very politically expensive. Again, we contend that the political costs of such a scenario are probably greater than the ecological benefits.

Alternatively, we examined a limited parcel acquisition, or easement, strategy (scenario 543) for areas of concern which removes key parcels from the potential development landscape. One such area is the Indian Creek Canyon region. Here, a stringer of oak woodlands presently connects the northern and southern wildland patches. Although this scenario did not actually maintain the connection, several small patches do extend through the area indicating that the concept has the potential to maintain this critical corridor. This area of the county is highly desirable for development, therefore making this scenario potentially fiscally expensive. However, unlike the ordinance approach, an acquisition approach would encounter fewer stakeholders directly and would offer owners compensation for the loss of development rights on their property. Involving private conservation groups or land trusts could greatly reduce costs to the public sector.

Rural residential development erodes habitat quality much more than habitat extent, requiring a more nuanced approach to assessing impacts than when natural habitats are simply removed or paved over. At these low densities, we were unable to use polygons of housing density to determine the relationship of naturalness to density. At certain scales, the landscape still looks much as it once did. Rather, we modeled the real impacts of site alteration which required an entirely unique set of variables and characteristics such as determining the exact footprint of development (e.g., Do lightly used roads count? Do outbuildings?) and establishing the sphere of influence from a structure (e.g., How far from the structure is natural vegetation disturbed? How far does sound travel? What impact does it have? What influence do pets have and at what distance?). We can easily adjust these variables in our model to examine their sensitivity and ability to assess other issues besides wildland connectivity such as impacts to specific species habitat requirements, watershed degradation from increased sediment generation, and changes in wildfire probability due to vegetative fuel alteration. Most people can agree that high density urban and suburban development do not provide much high quality habitat for most species, but seldom can stakeholders, land managers, public officials, or even scientists agree on the thresholds or the degrees at which rural development begins to impact the

landscape. As more of the landscape of California transitions from large extents of wilderness owned by relatively few private individuals to a landscape divided up amongst thousands of owners regularly dotted with houses every few thousand feet, understanding these impacts and enacting policies that are effective, fair, and feasible become ever more important and challenging.

Future Directions

One aspect of development and conversion of natural land cover that we have not addressed is agricultural expansion. In El Dorado County this primarily involves vineyards. Agricultural expansion has the potential for far greater impact to habitat extent and connectivity than residential development as a greater area of land in larger contiguous patches is generally more greatly disturbed. Agricultural expansion can also be more difficult to predict. Heaton and Merenlender (2000) have developed a model to determine site suitability for vineyard expansion in Sonoma County which could be adapted for use in El Dorado County.

More investigation of the effects of riparian corridors on habitat connectivity is needed, including the effectiveness of stream setbacks and the development of methods to characterize linear features, as opposed to the two dimensional patch features analyzed here.

Better knowledge of the likelihood of development would enhance our ability to tailor solutions to specific areas of concern. The incorporation of economic models of development such as Johnston's UPLAN (2001) and Landis's CURBA (1998a, 1998b) would provide more realistic future scenarios as well as the ability to model development in stages over time rather than only at full buildout as we have done. Implementing other constraining factors to development such as water availability and habitat conservation plans could also improve our predictions of future development.

Conclusion

Fine-grained spatial models with highly detailed datasets are required for evaluating impacts of development on ecological, economic, or social systems at the local level. Such large-scale, high-resolution models also enable stakeholders to more easily relate the data portrayed on maps to their perception of the landscape in which they live. However, most site-specific models of development have been created for dense urban areas, using complex economic formulas of land value and empirically derived patterns of past development trends. These models prove less than reliable at predicting low-density development of the rural ranchette variety which is now so prominent in the Sierra foothills and which has such great impact on habitat quality. We have developed a model that is both fine-grained and capable of predicting potential rural ranchette development and its impacts. Moreover, by having a tool that can operate under various assumptions and constraints, we can actually test a proposed solution's efficacy at achieving a desired goal, which in this case is maintaining wildland connectivity. We have also used our model of predicting footprint of development to assess impacts of wildfire on future structure loss. Our explicit model of development could prove useful for studies of water quality and cumulative impacts for watersheds by incorporating elements such as sediment

generation from road development, nutrient loading from septic systems, and conversion of natural land cover to impervious surfaces.

Existing land tenure (the historic parcelization of land) limits effective control of development by General Plan prescriptions that are only applicable when a parcel requires subdivision before development, thus leaving solutions that require large expenditures of political capital such as ordinances or downzoning. The political expense in implementing such solutions would seem to far outweigh the potential benefits. For El Dorado County, our study concludes that the most effective way to maintain wildland oaks in large contiguous patches would be a land acquisition program focused on those critical areas of connectivity, often referred to as habitat corridors. More importantly, broad-brush, "best management practice" type solutions (i.e., the conventional wisdom) applied evenly across the landscape are not necessarily the most effective approach. Site-specific design may be a more effective tool in minimizing negative impacts of development than generic policy prescriptions. "Good" policy should be a process by which better analysis of the problem leads ultimately to better design of the solution.

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Cheryl Langley
5010 Mother Lode Drive
Shingle Springs, CA 95682

Ms. Shawna Purvines, Principal Planner
EDC Development Agency, Long Range Planning Division
2850 Fairlane Court
Placerville, CA 95667

August 17, 2015

RE: Notice of Preparation for the Biological Resources Policies Update & Oak Resources Management Plan

Ms. Purvines:
Thank you for the opportunity to comment on the Biological Resources Policy Update (BRPU). I request the following information be included in the draft Environmental Impact Report (dEIR).

Impact to Efficacy of the 2004 General Plan

- Discuss how the removal of specific biological resources mitigation policies will impact the "legitimacy" and "viability" of the 2004 General Plan, since its approval was based in part on the presence of specific mitigation measures (e.g., the Integrated Natural Resources Management Plan, etc.).

- Because both the INRPM and Option A have been eliminated under the BRPU, include a discussion that specifies how the Oak Resources Management Plan (ORMP) satisfies the court decision brought relative to the Oak Woodlands Management Plan. How can both elements (INRMP and Option A) be deleted and yet satisfy mitigation requirements under that decision?

Targeted General Plan Amendment/Zoning Ordinance Update (TGPA/ZOU) Approval/Implementation
Multiple TGPA/ZOU policy changes will impact on oak woodlands—such as the TGPA/ZOU sanctioned conversion of open space to agricultural land—and *will not be evaluated under any EIR*: not under the TGPA/ZOU EIR, and not under the BRPU/ORMP EIR.

Impact to biological resources will be *significant* and *adverse* because agriculture is exempt from oak woodland protection measures (as well as other measures that protect biological resources—riparian protections, and so forth). The TGPA/ZOU will also **amend Policy 2.2.3.1** (**open space** in –PD zones); this will *"...reduce the open space available for wildlife habitat in –PD zones and thereby increase the potential to adversely impact special-status species."* It will also exempt **Residential Agriculture** from the list of zoning regulations that provide for maintenance of permanent open space, allow development on slopes ≥30 percent, adversely impact riparian woodland, and impact the groundwater resources oak woodlands rely upon.

In addition, Dudek estimates of **oak woodland acreage impacted** are based on the 2004 General Plan, not on TGPA/ZOU policies. Specifically, Dudek excluded an estimate of oak woodlands on slopes ≥30 percent, but **the TGPA/ZOU will enable development on these slopes**. Thus, the estimates in Dudek's *Oak Woodland Impact and Conservation Summary Table* 5 are short-lived, if the TGPA/ZOU is adopted.

- Discuss the impact on the BRPU/ORMP if the TGPA/ZOU is approved. That is, discuss whether a revision of the BRPU EIR will be required to accommodate the additional impacts the TGPA/ZOU will have on elements in the BRPU.

- Explain how the BRPU can legitimately be separated from the TGPA/ZOU evaluation. (The current BRPU is evaluated only in the context of the 2004 General Plan.)
- The TGPA/ZOU was evaluated as if Option A, the INRMP, and *multiple* other mitigations were "viable." Because these mitigations have been stripped away under the proposed BRPU, will the TGPA/ZOU EIR be recirculated if the proposed ORMP is adopted? Please explain.
- Provide information on the TGPA/ZOU impact to oak woodlands (including its impact on oak woodlands in agricultural-zoned lands, and as a result of the reduction in open space requirements, allowance of construction on sites with > 30% slope, the depletion of groundwater that oak woodlands rely upon, etc.)

Support Information for Approaches A, B & C

County staff prepared documents for the November 21, 2014 Biological Resources Workshop that included three **approaches (A, B and C)** to facilitate the completion of the ORMP project description and environmental review (County documents 7A and 7B). On page 5 of Staff Memo 7B, staff included a table that presents three approaches and their relative level of *"significant and unavoidable impacts."* When asked how these impact levels were derived, staff did not (or could not) answer. References (supporting documentation) were not supplied at that time, nor subsequent to the workshop. Despite the absence of supporting documentation, the Board of Supervisors made the decision to proceed with **Approach A**.

Thus, it is not known what information the impact levels were based upon. This information was not available to the public, and it is reasonable to assume it was not available to the decision making body (Board of Supervisors).

- I am requesting that the evidence/studies/science that served as the basis for the level of impact determinations for **Approaches A, B and C** be made available and included in the dEIR. Please include any and all documentation, (letters, emails, etc.) used to support the impact determinations (such as communications with outside agencies, etc.).

Mitigation Performance

According to *A Planner's Guide for Oak Woodlands*:[1]

> ...ecologists now recognize that **replacing a century old tree with 1, 3, or 10 one-year-old seedlings does not adequately replace the lost habitat value of large trees. It has become evident that simply focusing on mitigation plantings based on a tree to seedling ratio is not a sufficient strategy to ensure the viability of oak woodlands.** [R]eplacement seedlings as a mitigation measure for removal of older stands of trees cannot meet the immediate **habitat needs** of forest-dependent animal species.

It is apparent that **preservation of oak woodland on-site is the preferred "mitigation."** Short of on-site preservation, **the purchase of oak woodlands that will remain undeveloped in perpetuity** is to be preferred over on-site (or off-site) planting of saplings. Revegetation on- or off-site is a poor substitute for mature woodland, especially when value as **wildlife habitat** is part of the equation. **It is likely that**

[1] Giusti, G.A. et al (editors). 2005. *A planner's guide for oak woodlands.* University of California, Agriculture and Natural Resources, Publication 3491, second edition.

the loss of oak woodlands cannot be adequately mitigated under the current ORMP, especially in the absence of Option A retention requirements.

Mitigation Strategy
The proposed mitigation options need to be defined—or actually— **redefined**.

According to *A Planner's Guide for Oak Woodlands*:[2]

> [T]he ultimate goal for planting mitigations should be tree establishment and long-term survival. The impact should be compensated for by replacing or providing substitute resources, such as **planting large container-grown trees, rather than seedlings or acorns** to expedite the recovery of the lost habitat component, or off-site mitigation actions, or mitigation banking. **However, off-site measures should be considered sparingly and should not be viewed as a convenient way to achieve mitigation objectives; off-site mitigation proposals should be carefully considered so that the strategy *is not abused***.

If replacement planting *is* chosen as a means of mitigation in the ORMP, the mitigation must meet **performance standards**:

- **Please specify performance standards for mitigation plantings.** For instance, in the Interim Interpretive Guidelines (IIG) (7)(b), page 10, and IIG (7)(c), page 11, replacement plantings are "designed" to achieve oak woodland canopy coverage equal to the canopy removed **no more than 15 years from the date of planting**. **What is the performance standard for the mitigations described in the ORMP?**

Acorn planting as mitigation for the removal of mature stands of oaks is wholly inadequate. While it has been stated during ORMP workshops that acorn planting is sometimes the preferred method of achieving oak mitigation, there are many caveats that make this method of oak woodland replacement ineffective.

According to McCreary,[3] the planting of acorns will be impacted by a whole host of factors such as conditions at the planting site, including the kinds of animals present. **Because acorns are an important food source for a whole host of animals, acorn plantings are difficult to protect**. McCreary also warns that the type of care necessary for survival and growth may not be **logistically feasible** for remote planting sites,[4] making a difficult prospect more even more susceptible to failure.

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[2] Giusti, G.A. et al (editors). 2005. *A planner's guide for oak woodlands*. University of California, Agriculture and Natural Resources, Publication 3491, second edition.

[3] McCreary, D.D. Undated. *How to Grow California Oaks*. University of California Oak Woodland Management. Available at: http://ucanr.edu/sites/oak_range/Oak_Articles_On_Line/Oak_Regeneration_Restoration/How_to_Grow_California_Oaks/

[4] McCreary, D.D. Undated. *Living Among the Oaks*: A Management Guide for Woodland Owners and Managers. University of California, Agriculture and Natural Resources, Oak Woodland Conservation Workgroup; publication 21538.

Oak Regeneration and Acorn Plantings

The issue of oak regeneration comes into play when acorn planting is chosen as the path to oak woodland replacement.

According to *A Planner's Guide for Oak Woodlands*:[5]

> ...the same factors that prevent or limit **natural regeneration** can also take a heavy toll on artificial plantings. **To be successful, relatively intensive site preparation, maintenance, and protection must usually be provided for several years.**
>
> **There is substantial evidence suggesting that several species, including blue oak, valley oak,** and Engelmann oak (*Quercus engelmannii*) **are not reproducing at sustainable levels in portions of California. Simply stated, there are not enough young seedlings or saplings to take the place of mature trees that die, raising questions about the future of these species in the state.**
>
> **Numerous causes** have been cited, including **increased populations of animals and insects that eat acorns and seedlings, changes in rangeland vegetation, adverse impacts of livestock grazing (direct browsing injury, soil compaction, and reduced organic matter), and fire suppression.** Some people also suspect that **climate change** is a factor...

This troubling condition—that of poor regeneration—means the viability of acorn plantings, too, will be problematic, **making replacement of woodlands via the planting of acorns a fragile, ineffective strategy**.

According to McCreary, [6] **an effective alternative to directly sowing acorns is growing oak seedling in containers and then planting the saplings out in the field**. McCreary indicates propagating oaks in this manner results in starts that "...have higher survivorship than directly planted acorns, but they also cost far more."

Regarding acorn planting, I have the following requests for information:

- Please identify in the dEIR **other counties that utilize acorn planting** for mitigation and **describe the success rate** (efficacy) of such plantings **for each species of oak**. Describe locations at which such mitigation has taken place, and the date of plantings. Please include photographs of the site.
- The *Biological Resources Study and Important Habitat Mitigation Program Interim Guidelines (November 9, 2006),* pages 15-16 (under Discretionary Project Reporting Requirements) specify a **15 year (annual) monitoring period for oak regeneration projects that utilize acorns**. This monitoring period has been changed to 7 years (based most likely on Kuehl bill requirements). **Explain in the dEIR the reason for the monitoring period reduction**. (That is, explain why what

[5] Giusti, G.A. et al (editors). 2005. *A Planner's Guide for Oak Woodlands*. University of California, Agriculture and Natural Resources, Publication 3491, second edition.

[6] McCreary, D.D. Undated. *Living Among the Oaks: A Management Guide for Woodland Owners and Managers*. University of California, Agriculture and Natural Resources, Oak Woodland Conservation Workgroup; publication 21538.

was once acceptable/recommended has been reduced, given the more "protective" nature of the longer monitoring period).

- The IIG (7)(c), page 11 indicates maintenance and monitoring shall be required for a minimum of 10 years after the planting of trees (saplings, etc.) **Explain in the dEIR why this maintenance and monitoring period has been reduced under the ORMP**, given it was once acceptable/recommended and is more "protective."

Mitigation Efficacy

According to the California Environmental Quality Act **(CEQA) 15126.4a1(B)** *"Where several measures are available to mitigate an impact, each should be discussed and* ***the basis for selecting a particular measure should be identified.***" And, according to the Oak Woodland Impact Decision Matrix[7] conservation planning grounded in science-based information supports the development of sensitive planning scenarios. But, **while mitigation strategies are *identified* in the ORMP, the strategies themselves do not represent vetted processes. *Efficacy* of the measures must be *proven;* evidence must be provided.**

- Please include in the dEIR references for the science-based information used as a basis for mitigation strategies proposed in the ORMP.
- Include a discussion of mitigation efforts undertaken in the County. Discuss **failed mitigations**, and the **reason(s) for their failure**. (Such as the mitigation plantings adjacent to Serrano Village D2—see the following photos.)
- Describe mitigation efforts (oak replanting efforts) that have been **successful** in the County. Describe the location of the plantings, the type of oak replanting that took place (i.e., acorns, container plants, etc.—including the size of the container plants), when they were planted, and the current status (size, condition, mortality rate, etc.) Please include photographs of the site.
- Given the many examples of failed mitigation efforts in the County, discuss why the public should have confidence that future mitigations will be successful. (That is, **past performance is the best predictor of future performance**.)

The following photos were taken of **mitigation plantings** by Serrano Village D2 in "tree shelters." (This village was built around 2001-2003.) Photos taken **June, 2015**.

[7] Giusti, G., et al. 2008. *Oak Woodland Impact Decision Matrix: a guide for planner's to determine significant impacts to oaks as required by SB 1334 (Public Resources Code 21083.4)*. UC Integrated Hardwood Range Management Program, 2008.

This is a photo of a "tree shelter" around a blue oak; it was probably planted around the time of adjacent village construction (2001-2003). Photo taken June, 2015.

Note the low success rate of blue oak plantings, even with tree shelters

The tree shelters in this area (as seen in foreground) are mostly devoid of trees (approximately 12-14 years after planting).

Revised Definition of Woodland

"Oak Woodland" needs to be redefined to include not only standing living oaks, "*...but also trees of other species, damaged or senescent (aging) trees, a shrubby and herbaceous layer beneath the oak canopy, standing snags, granary trees, and downed woody debris in conjunction with [oaks].*"[8] Existing oak woodlands need to be evaluated under these criteria and, *if on-site retention is not possible*, **mitigation for the loss of *all* woodland components** through either conservation easement or fee title acquisition in perpetuity of biologically equivalent (or greater) woodland must take place to ensure replacement of viable woodland/wildlife habitat. (Napa County, for instance, evaluates all woodland components and employs a 60/40 retention in *sensitive water drainages*: 60% tree cover; 40% shrubby/herbaceous cover.)[9]

- Explain why the ORMP defines oak woodland in the following manner, and not in the manner described above in the Tuolumne County document (that acknowledges oak woodlands as wildlife habitat):

> Oak Woodlands: An oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover (California Fish and Game Code Section 1361).

Source: ORMP, page 27.

- Discuss how the definition of oak woodland in the ORMP serves to limit mitigation effectiveness, and how the definition from Tuolumne County (above) expands mitigation viability.

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[8] Michael Brandman Associates. 2012. Tuolumne County Biological Resources Review Guide. December 4, 2012; page 32. Available at: http://www.tuolumnecounty.ca.gov/DocumentCenter/View/204

[9] Napa County. 2010. Napa County Voluntary Oak Woodlands Management Plan. October 26, 2010; page 20. Available at: http://www.countyofnapa.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=4294973990

Exempt Actions

- **Exemption for Personal Use of Oak Woodland Resources**. ORMP, page 7: *"When a native oak tree, other than a Heritage Tree, is cut down on the owner's property* ***for the owner's personal use****."* This provision for "personal use" is problematic.
    - **Explain what deters a property owner from "pre-clearing" oaks under the guise of "private use."**
    - Include a discussion—and some options for defining "personal use"—that may include **restricting personal use to certain zoning classifications** (i.e., residential parcels of 10 acres or less, for example) and eliminating from "personal use" land zoned for commercial, industrial, and other properties subject to planned development, area specific plans, etc.
    - Include a discussion that evaluates incorporating measures that **restrict for a period of time—say 10 years—the rezoning of land that has been pre-cleared, even if oak woodland was removed while the land was under a zoning district that *allows* oak tree removal for personal use** (parcels of 10 acres or less, for example).

      This discussion is necessary (as is the provision of a measure designed to prevent such behavior) because it is well known—and documented—that sites within the County have been cleared of oak trees immediately prior to development proposal. (Documentation provided upon request.)

- **Exemption for Non-Commercial Agricultural "Operations."** ORMP, page 7: *"Agricultural cultivation/operations, whether for personal or commercial purposes (excluding commercial firewood operations)."*
    - Include in the dEIR why this measure is necessary, and how much oak woodland is potentially impacted by this measure. The El Dorado Irrigation District (EID) is already on the threshold of eliminating a reduction in water rates for such operations, thus threatening their viability. Thus, while EID policies undercut such activity, the ORMP allows for the removal of oak resources minus mitigation. A reasoned outcome is that oaks are removed for a "hobby" agricultural operation that has little chance of being maintained.

Commercial Wood-Cutting Operations

There are too few restrictions placed on commercial firewood cutting operations. This lack of restrictions places oak woodland—especially blue oak woodland—in jeopardy.

The following is an excerpt from page 11 of the ORMP:

Commercial firewood cutting operations shall also require a tree removal permit if not approved under an oak woodland removal permit. In reviewing a tree removal permit application for commercial firewood cutting operations, the County shall consider the following:

- Whether the removal of the tree(s) would have a significant negative environmental impact;
- Whether the tree proposed for removal is a Heritage Tree;
- Whether replanting would be necessary to ensure adequate regeneration;
- Whether the removal would create the potential for soil erosion; and
- Whether any other limitations or conditions should be imposed in accordance with sound tree management practices.

- Please include in the dEIR the **specific criteria (thresholds)** used to determine the following:
  - "significant negative environmental impact";
  - "adequate regeneration";
  - "potential for soil erosion"; and
  - "sound tree management practices."

- Include in the dEIR a discussion of specific criteria/thresholds/restrictions applied to **restrict removal activity** to a level that precludes impact to a level of "significant environmental impact," and that supports adequate regeneration, avoids soil erosion, and institutes sound management practices.

- While **commercial firewood cutting operations** would be required to obtain a permit under the proposed plan, **there is no mention of minimum retention standards**. Shasta and Tehama counties adopted resolutions calling for **30 percent crown cover retention.**[i]

Photo Source: Standiford, et al., 1996. *Impact of Firewood Harvesting on Hardwood Rangelands Varies with Region.* California Agriculture, March-April, 1996.

Blue oak firewood
en route to
Bay Area markets.

Photo Source: Cobb, J. 2015. California Oaks, letter to the California Board of Forestry and Fire Protection and the California Air Resources Board dated June 29, 2015 (Attachment 1).

In-Lieu Fee Use

- **Define in the dEIR exactly what the in-lieu fee will be used for**. Include a discussion of the benefit of a clause that addresses unexpended funds in the following manner: change existing language from ***"revenues shall be allocated for some other purpose"*** to ***"revenues shall be dedicated to land conservation or natural lands stewardship."*** This suggested language **provides some flexibility while keeping the use of the funds focused** if the County has difficulty expending all the funds specifically for oak woodlands within the five year time frame.

Willing Sellers in Community Regions/Rural Centers

- Discuss how allowing **willing sellers** in Community Regions and Rural Centers to "sell" their property into **conservation easement** status would impact County conservation efforts. Discuss the reasoning behind *not* allowing willing sellers in these designations to sell, and discuss whether or not this restriction is based upon habitat evaluation (study).

Site Concurrence

- Include an evaluation of the viability/impact of **site concurrence by the California Department of Fish and Wildlife** (CDFW) in the process of establishing **conservation easements.** At least one county (Tuolumne) recommends dedication of such lands to a land conservation group **approved by the county with concurrence** by CDFW.[ii] Such concurrence would ensure easements provide the maximum benefit to wildlife.
- Discuss how this site concurrence by CDFW may assist developers with identification of appropriate conservation zones.

Advisory Body

- Evaluate in the dEIR the establishment of an **advisory body** (like PAWTAC) to review mitigation plans, mitigation implementation, and efficacy. (Ideally this advisory body would make recommendations to appropriate governing bodies, work with land conservation groups, and be responsible for homeowner education (protection of oaks in the landscape).

Initial Study

Following is a discussion of the Initial Study. The dEIR **will evaluate environmental impacts in the following areas**:

4.0 PROBABLE ENVIRONMENTAL EFFECTS AND SCOPE OF THE EIR

The EIR for the proposed project will focus on the resource areas/issues germane to this particular project. The EIR will evaluate the potentially significant environmental impacts of the proposed project and will evaluate whether there are feasible mitigation measures that may lessen or avoid such impacts. As the proposed project would amend the County's General Plan and influence development activities throughout the County and does not include any specific construction or development, the impact analysis will be programmatic and cumulative in nature. The EIR will also identify and evaluate alternatives to the proposed project. The EIR will evaluate potentially significant environmental effects related to the following environmental issues:

- Aesthetics
- Agricultural and Forestry Resources
- Biological Resources
- Greenhouse Gas Emissions
- Land Use and Planning

The following issues are not to be covered (although Greenhouse Gas Emissions [GHG] are listed in both areas—to be covered, and not to be covered, I assume from additional discussion in the Initial Study that GHGs will be covered, but would like this clarified).

As evaluated in the Initial Study, it is not anticipated that impacts would occur within the following environmental topic areas, and therefore these specific environmental issues will not be evaluated further in the EIR.

- Air Quality
- Cultural Resources
- Geology/Soils

- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Mineral Resources
- Noise
- Population/Housing
- Public Services/Utilities
- Transportation

Air Quality/Greenhouse Gas Emissions

While GHGs are listed on both the "to do" and "not to do" lists, the Initial Study acknowledges **GHG emissions** from the removal of oak woodlands "***could contribute to adverse climate change and could impair the ability of a region…to achieve GHG reductions required under state law***."

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

El Dorado County Biological Resource Policy Update and Oak Resources Management Plan Project

a, b) The project proposes amendments to biological resources policies contained in the County's General Plan and adoption of an ORMP. While, the project does not include new construction or land uses that would generate greenhouse gas (GHG) emissions, development that proceeds under the proposed General Plan amendments and ORMP could alter and/or remove vegetation communities, including oak woodlands, and/or oak trees. Conversion of woodlands and other natural vegetation communities to developed uses could generate GHG emissions during the construction process. Further, oak woodlands and other natural vegetation communities serve as a carbon sink, in that they remove GHGs from the atmosphere and store carbon. Therefore, removal of woodlands and other natural vegetation communities could release GHGs into the atmosphere and reduce the natural absorption of GHG emissions. These effects could contribute to adverse climate change effects and could impair the ability of the region and the state to achieve GHG reductions required under state law. These effects will be evaluated in the EIR.

And yet, the following notation in the Initial Study stands in contradiction:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. **AIR QUALITY** – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☒
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒

- Include in the dEIR a discussion of this contradiction.
- Discuss the impact on air quality caused by the increase in development—residential, commercial, industrial, etc.—and the associated increase in emissions from increased vehicular traffic, construction activities, etc. **(Developers are now constrained under Option A restrictions, in combination with the lack of an in-lieu fee option; now that numerous mitigation options will be available, growth/development will inevitably occur.)**
- Include in the dEIR a complete evaluation of Air Quality issues, including GHGs, and other emissions from commercial woodcutting operations, and the large-scale removal of oaks for planned development projects, specific area plans, agricultural operations, etc.
- Include in the dEIR a complete evaluation as required under AB 32, as described below.

Assembly Bill (AB) 32 (See also Attachments 1 & 2).

The goal of AB 32—the California Global Warming Solutions Act—is to **reduce** carbon dioxide (CO_2) emissions by 2020 to 1990 levels, with a further 80 percent CO_2 reduction by 2050. The bill emphasizes the evaluation of CO_2 associated with the conversion of forests to other uses. **Oak woodland CO_2 emission effects must be considered for projects that convert native forests to non-forest use.** Both direct CO_2 emission impacts from dead tree disposal and cumulative impacts due to the loss of future increases in live tree carbon sequestration represent a biological emission subject to CEQA analysis and mitigation. Live tree biomass (including roots), standing dead tree biomass, and wood lying on the ground are to be evaluated to measure oak woodland biological emissions under CEQA.

CEQA CO_2 questions to be answered include:

- how much potential CO_2 sequestration over the next 100 years will be lost due to impacts to live native trees three (3) inches or greater diameter at breast height (dbh); and
- how much sequestered CO_2 will be released if the live trees, standing dead trees or woody debris are burned?

The County *must* analyze and mitigate CO_2 biological emissions associated with the land use changes that result in the loss of oak woodland sequestration capacity (the conversion of oak woodlands to non-forest use) and CO_2 release from burning oak debris/wood. If such an analysis is not done, the County disregards not only CEQA, but the Office of Planning and Research (OPR) guidelines, California Attorney General opinions and Court decisions. (See Center for Biological Diversity, et al. v. City of Desert Hot Springs, et al. (2008) Riverside County Superior Court - Case No. RIC 464585 and Berkeley Keep Jets Over the Bay Committee vs. Board of Port Commissioners (2001) 91 Ca.App.4th 1344, 1370-71.)

Because California has designated CO_2 emissions a grave human health risk, local jurisdictions cannot invoke ministerial or overriding considerations in determining proportional mitigation for carbon biological emissions due to oak woodlands conversion to non-forest use. It is considered an abuse of discretion to declare an inadequately mitigated oak woodland conversion a **public benefit** when in fact woodland conversion represents a demonstrable **public health hazard**.

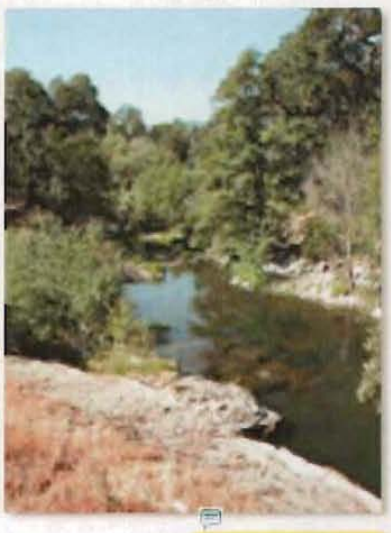
- Provide a complete analysis as required under AB 32.

Cultural Resources

Disregarding oaks and oak woodlands as important cultural resources is an error. Many cultural resources are closely associated with oaks and oak woodlands, and this important aspect needs to be evaluated in the dEIR.

A. CULTURAL/HISTORICAL

Artifacts of the Native American people who historically lived in Napa County tend to be co-located with oak woodlands, which provided them with the acorns they relied upon for food. According to local historian Lin Weber, shamans of the Wappo people would offer prayers for the health of the oak trees, and the Wappo named months of the year after the seasonal phases of oaks. Present day oak stands or individual trees may have historical significance due to past events or structures that were associated with them. Many historical accounts mention the trees and the use of specific trees as landmarks or as boundary markers. The earliest European settlers found refuge from the hot valley sun for themselves and their livestock under oaks and benefited economically from the use of oaks for building material and firewood. Oak woodlands also created venues for recreation and public events. Napa County's remaining oak woodlands continue to serve as a reminder of our cultural and historical heritage.



Source: Napa County. 2010. *Napa County Voluntary Oak Woodlands Management Plan*. October 26, 2010. Page 8.

- Discuss in the dEIR the cultural significance of oaks. Identify specific oaks/oak woodlands/woodland areas that have historical significance in El Dorado County, and describe the basis for their significance.

Geology and Soils

While the Initial Study cites no impact to geology and soils from the anticipated removal of oaks and oak woodland, it is nonetheless known that numerous significant impacts can occur.

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

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. GEOLOGY AND SOILS – Would the project:				
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?	☐	☐	☐	☒

Removal of oaks—especially on sloped land—can cause serious soil erosion, and can cause slope instability (landslides). The presence of oak trees can also facilitate the uptake of moisture from septic systems and improve their performance (VI)(e).

In fact, the ORMP, page 8, cites the potential for erosion during woodcutting operations, and cites (page 4) the following benefits from the preservation of oaks and oak woodlands:

1.4 Economic Activity, Land, and Ecosystem Values of Oak Resources

Agriculture and recreation-based tourism are important economic generators in El Dorado County. Oak resources provide value for these activities, including forage value for ranching, soil retention and watershed function benefits that contribute to agricultural activities, and aesthetic value for agri-tourism. Oak resources contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases. Oak resources contribute to a high-quality visit for recreation tourists, whose activities may include camping, fishing, hiking, bird-watching, and equestrian trail riding.

Studies have also concluded that the presence of oak resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty. Oak resources also contribute to healthy lands and watersheds. They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

Other sources also identify oaks and oak woodlands as providing erosion control and soil stability.

C. Erosion Control

Oaks help control soil erosion in several ways. Oak woodland canopy intercepts raindrops and dissipates rainfall energy, reducing potential surface erosion. Oak leaf-fall and twigs that accumulate on the soil surface under oak woodland canopy also provide further protection against the erosive action of rainfall. In addition, tree roots and their associated symbiotic soil fungi promote the formation and stability of fine and course soil aggregates which help to promote soil cohesion and stability, reducing the risk of landslides and gully/ rill erosion. Oak woodland located on soils and slopes prone to erosion can also help prevent degradation in water quality and uphold soil/ land productivity. The planting of oaks in areas historically known to support oak woodland that currently exhibit accelerated erosion from lack of tree cover can help to stabilize and prevent further erosion in these areas.

Source: Napa County. 2010. *Napa County Voluntary Oak Woodlands Management Plan*. October 26, 2010. Page 9.

- Provide in the dEIR a complete description of the potential impacts of oak tree/oak woodland removal, including the impact on soil stability, erosion, septic tank performance, etc.

Hazards/Hazardous Materials

In El Dorado County, the removal of oaks and oak woodland can disturb layers of soil and rock **containing asbestos.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☒
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☒
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

- Include in the dEIR a discussion of oak woodlands that are located in areas known to be asbestos bearing. Describe and map those areas, and include the land use designations in those areas.

Hydrology/Water Quality

The removal of oaks/oak woodlands will have broad impact on hydrology/water quality; the dEIR needs to discuss/disclose these impacts. In fact, the ORMP, page 4 describes the benefit of oak tree/oak woodland retention on hydrology:

> ***1.4 Economic Activity, Land, and Ecosystem Values of Oak Resources***
>
> Agriculture and recreation-based tourism are important economic generators in El Dorado County. Oak resources provide value for these activities, including forage value for ranching, soil retention and watershed function benefits that contribute to agricultural activities, and aesthetic value for agri-tourism. Oak resources contribute to soil retention and provide watershed benefits, which have benefits to the agricultural community. Deer and other game species are dependent on oak woodland habitat and provide recreational hunting opportunities, which can generate revenues for ranching land owners through hunting leases. Oak resources contribute to a high-quality visit for recreation tourists, whose activities may include camping, fishing, hiking, bird-watching, and equestrian trail riding.
>
> Studies have also concluded that the presence of oak resources enhances property value by providing shade, wind breaks, sound absorption, land use buffers, erosion control, and aesthetic beauty. Oak resources also contribute to healthy lands and watersheds. They do this by providing habitat for animals, maintaining water quality, and improving soil characteristics. Oak resources have also been identified as a valuable component in greenhouse gas reduction, trapping and storing atmospheric carbon dioxide.

And yet, the Initial Study does not acknowledge this benefit, nor the impact the removal of oaks/oak woodland will have on hydrology—and, by association—water quality.

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

- Include in the dEIR a complete discussion of the impacts of oak/oak woodland removal on hydrology/water quality.
- Discuss the impact on oaks/oak woodland that will occur as a result of new development that is groundwater dependent, and the impact on County residents that rely on groundwater resources.

Below is a discussion of some issues related to oak/oak woodland removal and hydrology/water quality from other sources.

B. Flood Protection

The Napa River is historically prone to flooding, causing damage to homes and vineyards within its floodplains. Oak woodlands play a part in minimizing the strength and effect of the river's floodwaters. Oaks slow the eroding energy of rainfall with their canopies by temporarily hold rainwater on their leaf and stem surfaces during a rainstorm, increasing the amount of time rain takes to reach the ground and contribute to runoff. Oak woodland canopies capture 20-30% more rainfall than do grasslands, and their contribution to organic matter in the soil improves its water holding capacity.[4] As a result, they have a high capacity for detaining peak flows from rainfall events that would otherwise run in larger volumes and at higher velocities into streams, contributing to flooding, erosion, and sediment and nutrient concentrations that can harm water quality. The greatest flood protection/ attenuation benefits related to tree canopy cover are in watersheds that quickly concentrate flows and pose a risk of flash flooding and in areas where runoff conveyance is already near capacity. Oak trees also capture and transpire moisture from the soil during the growing season. Compared to annual vegetation, oaks can extract water from the soil profile to a greater depth. Consequently, soils under oak woodland canopy are able to absorb and hold greater amounts of rainfall than equivalent soils with only annual grassland cover. This extra storage capacity further reduces the potential for flooding during the rainy season and promotes groundwater recharge.

Source: Napa County. 2010. *Napa County Voluntary Oak Woodlands Management Plan*. October 26, 2010. Page 8 - 9.

D. Water Quality Protection

Oak woodlands, whether located on the hillsides or on level lands near streams, play an important role in protecting water quality. By minimizing soil erosion as noted above, oak woodlands can help reduce sediment transport and washing of fine sediments into local waterways. High levels of sediment in waterways can negatively impact the aquatic food supply by reducing habitat available for fish, aquatic invertebrates and other organisms important to the diets of fish and birds. The Napa River is currently listed as impaired for sediment and a Sediment Total Maximum Daily Load (TMDL) is in the process of being adopted by the State.

The contribution of oaks and other vegetation to erosion prevention near waterways is especially important if soils contain excessive nutrients, pathogens or high levels of toxic material (natural or human concentrated), such as chemical contaminants, mercury or other heavy metals. Putah Creek, for example, has elevated levels of mercury in the soils of the bed and banks of its tributaries and is the focus of State regulatory efforts (TMDL) to reduce mercury levels. Oaks and other vegetation also help reduce soil contamination by absorbing heavy metals, fertilizer nutrients, and pesticides from the soil and intercepting sediments containing these pollutants, thereby preventing these materials from reaching surface waters. Oaks and associated permanent vegetation along waterways can also reduce potential waterway contamination from airborne pesticide or herbicide drift, since oak foliage can intercept airborne pesticides/ herbicides.

Source: Napa County. 2010. *Napa County Voluntary Oak Woodlands Management Plan*. October 26, 2010. Page 9 - 10.

Noise

The large-scale removal of oaks for some projects—commercial woodcutting operations, planned development projects, specific area plan implementation, agricultural operations, etc., will have an impact on noise levels in the County.

- Please include in the dEIR a discussion of noise from the activities described above, and describe the mitigation measures that may be employed to reduce the impact (e.g., limitations on the hours of operation of chain saws, dozers, or other tree removal equipment).

Population/Housing

There will inevitably be an increase in the amount of housing (and therefore population) as a result of the adoption of the ORMP. As stated under Air Quality, **developers are now constrained under Option A restrictions, in combination with the lack of an in-lieu fee option. Now that numerous mitigation options will be available, growth/development will inevitably occur.**

- Discuss the impact of the increase in population on County services, etc., that will result from ORMP adoption.

Public Services/Utilities

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

The removal of oak trees/oak woodland can have a significant impact on the need to construct storm water drainage facilities (see discussion under Hydrology/Water Quality).

- Include in the dEIR a discussion of the impact of oak/oak woodland removal on hydrologic patterns, and how that may result in the need to construct new storm water drainage facilities, etc.

Project Alternatives

I respectfully request that the following project alternatives/alternative elements be evaluated:

Project Alternative 1. Retention of the Option A oak retention schedule. Oak retention should be *the* priority. Other alternatives/mitigations should be utilized **only after it has been determined the project cannot meet the Option A retention schedule through any reasonable means.** A discussion of the necessity of Option A retention follows.

The Standiford Study[10] **(NOTE:** This study was relied upon for development of the County's IIG.) According to Standiford, the results of this study (cited in the footnote below) call into question whether planted stands adequately mitigate the loss of mature stands. The mitigated blue oak stand wildlife species list (specific to the Sierra Nevada foothills) was compared to a natural blue oak stand, averaging 10 inches dbh, with a 30 percent canopy cover. The natural stand was assumed to have small and medium size downed wood, snags, acorns and trees with cavities and was projected to have 102 vertebrate wildlife species. The number of vertebrate species projected to occur in a mitigated stand—after 50 years—was 73 species (1 amphibian, 40 bird, 19 mammal, and 13 reptile species). The results of this study underscore the fact that blue oak woodlands develop habitat conditions slowly, and that it may take in excess of 50 years to replace mature habitat that is lost in a particular project.

The results suggest it is important to evaluate if tree planting is a viable method of mitigation, especially because many important habitat elements such as cavities, acorns, snags, and woody debris may not be mitigated—at least in the 50-year interval evaluated in the study. **Thus, it is important to conserve oak woodland in a natural state, whenever possible.**

At the June 22, 2015 Biological Resources meeting, the Board of Supervisors agreed it was important to evaluate the addition of oak retention standards to the ORMP process.

> **A motion was made by Supervisor Ranalli, seconded by Supervisor Veerkamp to Approve this matter. Adopt Resolution's 108-2015 and 109-2015 and direct staff to:**
> **Consider project alternatives as part of the environmental review process including:**
> **1) Adding oak resource retention standards;**
> **2) Options for Individual Oak Tree (IOT) replacement mitigation (e.g. acorn to 15 gallon potted tree) and associated analysis of the implications for the In-lieu Fee Nexus study based on these options, and**
> **3) Oak resource mitigation requirements related to discretionary and ministerial projects.**

Mitigation options should only be entertained for those projects that ***absolutely*** **cannot come to fruition without some deviation from Option A retention standards.** ***Incentivizing*** oak woodland retention rather than ***requiring*** retention is not an acceptable option, **nor is establishing a policy that allows 100 percent removal of oaks**.

For reasons cited in the Sandiford study (previously described), the following project alternatives should be considered as well.

Project Alternative 2. Redefinition of **"Oak Woodland"** to include other associated tree and shrub species (understory) to maintain wildlife habitat value; require mitigation to replace these elements as well.

Project Alternative 3. Redefinition of a Heritage Tree as 24" dbh—**if not for all oaks, for blue oaks** (*Quercus douglassi*). (A discussion follows that identifies why this change is essential.)

The Standiford Study[11] **(NOTE:** This study was relied upon for development of the County's IIG.)

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[10] Standiford, R., et al. 2001. *Modeling the Effectiveness of Tree Planting to Mitigate Habitat Loss in Blue Oak Woodlands.* USDA Forest Service General Technical Report PSW-GTR-184, 2002.

[11] Standiford, R., et al. 2001. *Modeling the Effectiveness of Tree Planting to Mitigate Habitat Loss in Blue Oak Woodlands.* USDA Forest Service General Technical Report PSW-GTR-184, 2002.

This study modeled development of blue oak (*Quercus douglasii*) stand structure over 50 years after planting. The growth model was based on actual blue oak stand age and structure data (Standiford 1997). For this study, data was collected from 55 sample blue oak trees in a ten-year old blue oak plantation at the Sierra Foothill Research and Extension Center in Yuba County, California.

In this study, two different management regimes were utilized, a **high management** intensity scenario that assumed these stands would **average 2 inches** dbh after **10 years**, and there would be a 90 percent seedling survival. A **moderate management** scenario assumed that the stands would **average 1.5 inches** dbh, with an 85 percent seedling survival. **These assumptions are based on actual plantation growth** (McCreary 1990, 1995a, 1995b; McCreary and Lippit 1996; McCreary and Tecklin 1993) **and observations of operational restoration projects.**

For a planting density of **200 trees per acre 10 years** after planting (under a high management intensity), it was anticipated trees would average 2 inches dbh with 90 percent survival; under moderate intensity management, trees were anticipated to average 1.5 inches dbh with 85 percent survival, and **20 years** after planting: 2.5, 2.0, respectively.

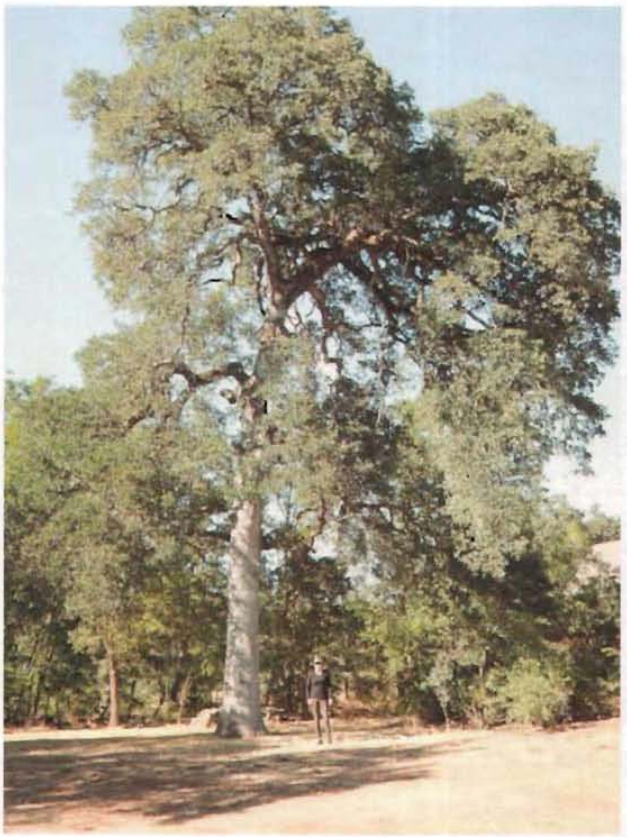
Canopy cover after 50 years was projected to range from 7 to 33 percent, with an average dbh after 50 years ranging from 3.4 to 4.1 inches. Even under fairly aggressive restoration efforts the largest mean diameter of the stand was quite small, only 3.9 inches, with a canopy cover of 33 percent.

The following photographs serve to illustrate the growth rates for blue oak.
The blue oaks depicted below are **10-16 years old**.[12]

- Large blue oaks are likely **153 to 390 years old** (White, 1966).
- Growth is extremely slow ***or even ceases*** after trees reach **26 inches dbh** (McDonald, 1985).[13] (**dbh**=diameter at breast height: 4 feet 6 inches from ground.) Thus, many blue oaks—although extremely old—**will never reach Heritage Tree status**.

[12] Phillips, R. L., et al. 1996. Blue Oak Seedlings May be Older than they Look. California Agriculture, May-June 1996. Available at: http://ucanr.edu/repositoryfiles/ca5003p17-69761.pdf

[13] Ritter, L.V. Undated. *Blue Oak Woodland.* California Wildlife Habitat Relationships System, California Department of Fish and Game, California Interagency Wildlife Task Group.



The blue oaks on this page illustrate a point. Although one *has* achieved Heritage Oak status, one can see the tremendous size required to arrive at Heritage Oak status.

This blue oak **IS NOT** a Heritage Oak, it is **32.5" dbh**.

This blue oak **IS** a Heritage oak **by one inch—37" dbh**.

Because blue oaks are slow growers, **Tuolumne County** has worked to establish a separate standard for blue oaks under their *old growth oaks* or **"specimen oaks"** category.[14] Given this acknowledgement that blue oaks—given their slow growth rates—warrant separate consideration, it seems reasonable that **El Dorado County establish a separate size requirement for blue oak for Heritage Oak designation**.

In addition, it is known **blue oak regeneration** is a problem in many areas of the State. In fact, ***"Few areas can be found in California where successful recruitment of blue oaks has occurred since the turn of the century" (Holland, 1976).***[15]

For these reasons—**slow growth, poor regeneration rates**, and the fact that **blue oak growth often ceases after trees reach 26" dbh**—it is necessary to establish a threshold for Heritage Oak designation for blue oak that is less than the 36" dbh threshold now proposed. It is only reasonable (and necessary) to protect this resource with a separate Heritage Oak threshold designation.

Growth Estimates for Black and Live Oak

The growth rates discussed previously for blue oak demonstrate what can be expected in terms of replant growth rates in the Western portion of El Dorado County. **But other oak species exhibit slow growth rates as well.** According to McDonald,[16] black oak (*Quercus kelloggii*) growth rates (from acorns) are estimated to be 3.4 inches dbh at 20 years and 9 inches dbh at 50 years. Interior live oak (*Quercus wislizeni*) is also reported as slow-growing.[17] These oaks, too—all oaks—would benefit from a redefinition of "Heritage Oak" to 24" dbh.

Project Alternative 4. Require **sapling/specimen tree replacement** for oak mitigation; **eliminate the option for acorn planting**.

Project Alternative 5. Establish a **minimum retention standard** for commercial firewood cutting operations, and define standards for site protection.

Project Alternative 6. **Application of a more robust mitigation ratio.** A revision of the mitigation ratios to a 2:1 mitigation ratio (at a minimum), and up to 5:1 in the case of environmentally sensitive areas, would motivate the developer to look more seriously at oak woodland retention, and would ensure the preservation of more oak woodland.

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[14] Michael Brandman Associates. 2012. Tuolumne County Biological Resources Review Guide. December 4, 2012; page 38. Available at: http://www.tuolumnecounty.ca.gov/DocumentCenter/View/204

[15] Ritter, L.V. Undated. Blue Oak Woodland. California Wildlife Habitat Relationships System, California Department of Fish and Game, California Interagency Wildlife Task Group. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=67340

[16] McDonald, P.M. Undated. *California black oak (Quercus kelloggii).* Available at: http://www.na.fs.fed.us/pubs/silvics_manual/volume_2/quercus/kelloggii.htm.

[17] Fryer, Janet L. 2012. Quercus wislizeni. In: Fire Effects Information System, [Online]. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer). Available: http://www.fs.fed.us/database/feis/ [2015, February 6].

Requests for Clarification

- Provide in the dEIR a **detailed map** of the Important Biological Corridors (IBCs) and Priority Conservation Areas (PCAs). This is necessary to provide the public with the information necessary to determine which parcels are included—or excluded—from the IBCs and PCAs.
- **BRPU Decision Point 3: *"Determine whether to require undercrossings for future four- and six-lane roadway projects to provide for wildlife movement, and if so, determine specific standards for undercrossings (i.e., size, location)."***

  It is crucial to provide wildlife undercrossings (or overcrossings) particularly (although not exclusively) where roadways cross streams, creeks, seasonal creeks, other drainages, and riparian areas. Wildlife are most likely to frequent, and most likely to attempt roadway crossings at these sites. Providing wildlife undercrossings/overcrossings supports both wildlife preservation and motorist safety. However, some clarification is necessary in this instance.

> **A motion was made by Supervisor Ranalli, seconded by Supervisor Frentzen to require, when necessary, undercrossings for future four (4)-, six (6)- and eight (8) - lane roadway projects to provide for wildlife movement.**
>
> **Yes:** 5 - Mikulaco, Veerkamp , Frentzen, Ranalli and Novasel

- Please specify in the dEIR the criteria that would meet the standard ***"when necessary,"*** established by the Board of Supervisors.

Oak Planting, Conservation, etc.

Some issues need to be resolved to ensure appropriate mitigation planning. For instance, the following measures need to be overseen by a PAWTAC committee, and/or by the concurrence of CDFW, or a land conservation organization, or—in the case of the first item—through examination by a qualified arborist.

- ORMP, page 14: States that on-site planting is to be done *"to the satisfaction of the Planning Services Director."*
- ORMP, page 14: Off-site planting: "The applicant may be permitted to procure an off-site planting area for replacement planting."
- ORMP, page 16: "Off-site mitigation may be accomplished through private agreements between the applicant and a private party."
- ORMP, page 21: The acquisition of parcels that constitute "opportunities for active land management to be used to enhance or restore natural ecosystem processes."
- ORMP, page 21: "Parcels that achieve multiple agency and community benefits."
- ORMP, page 24: the in-lieu fee payment **may be phased** to reflect timing of the oak resources removal/impact."

Assembly Bill 1600

It is important *not* to limit the in-lieu fee evaluation to the criteria included in AB 1600. It is vital to remember that other funding "tools" that lack the narrow findings required under AB 1600 can be enacted to acquire the necessary amount of mitigation funds: Propositions 62 and 218, for instance, can provide for a special tax (but require voter approval). And, while a fee study provides the quantified basis for imposition of fees, **the County is free to determine that the level of service it would like to provide cannot be met simply through the imposition of the impact fee.**

AB 1600 impact fees are often based on staff's *professional judgment* or *opinion* regarding potential impact—and on a County's growth projection—the basis for all conclusions must be supported by *substantial evidence*. Because El Dorado County's water supply is arguably "uncertain" at this time, it will be difficult to project potential growth realistically.

After all is said and done, it is important to remember that—while some individuals have requested that the in-lieu fees be kept as low as possible—this provision is intended to provide ***viable mitigation***, and as such must be adequate to mitigate loss. **Affordability is not a criterion under which the effectiveness of mitigation can legitimately be degraded.**

Van Dyke Public Comment for Biological Resources NOP, 8/17/15

An NOP signals that the drafted policies have been vetted and are ready to be analyzed in the EIR. Yet the multiple outreach meetings largely disregarded public comment. The removal of Option A to allow 100% oak tree removal may please developers and staff, but it is NOT supported by residents. *Initiation of this EIR is premature if the drafted policies do not yet reflect the will of County residents. Please reconsider the Project Description and reissue this NOP.*

Additionally, I would like to see the following concerns addressed regarding the biological policies as drafted:

1. The Project cannot be reviewed 'in a vacuum', and changes resulting from the TGPA/ZOU must be included in the cumulative impacts analysis if that project has not been concluded or is tied up in litigation.

   Some of the TGPA/ZOU changes that have not been reviewed relative to removal of the Option A retention standards are:

   a. reduced open space requirements (ordinance 17.28.050B)
   b. increased hillside development (policy 7.1.2.1)
   c. reduced riparian setback (ordinance 17.30.030G3d)
   d. allowance for development within the riparian setback (ordinance 17.30.030G5)
   e. intensification of zoning (ie, minimum 20 acre parcels changed to minimum 10 acre zoning)
   f. expanded uses within zone districts (use matrices throughout the ZOU: 17.21.020, 17.22.020...)
   g. expanded uses under the Home Occupancy Ordinance
   h. expanded uses into Rural Regions (Table 2-1, Policy 2.2.1.1)
   i. expanded exemptions to the biological policies, such as agricultural activities, hillside development , and underground utilities(ordinance 17.30.060D)
   j. reduced agricultural setback requirements (policies 8.1.3.1/8.1.3.2)
   k. the 2004 General Plan impacts that are no longer being mitigated -see 2. below.

2. Any elements of the 2004 General Plan that counted on mitigations now being eliminated must be factored back in to the impact analysis. For example, if constraints to development in 2004 included open space protections and restricting hillside development, and those mitigations are revised, the impact of having the Community Regions expanded by some 300 parcels via the 2004 Gen Plan will have to be reviewed relative to the removal of Option A and mitigation measures CO-A, -L, -M, -N, -O and -P.

3. Neither the NOP nor the ROI's it is based on (ROI 118-2015 & 109-2015) reflect the June 22nd motion of the Board to include oak tree retention standards in the alternatives (minutes attached). In the July 14th hearing staff asserted they needed further direction, and it appears none has been given. The project description is flawed and should be revised, possibly with a new NOP circulated for public review.

4. How can Option A be deleted when it was required by the 2005 court decision that lifted the writ of mandate? This may necessitate a different/additional analysis.

5. Broaden the impact analysis of heritage tree designation to potentially protect trees 24" in diameter and greater, which would be in alignment with other similarly rural counties. If only 36" is analyzed as proposed, "lesser" options will not be possible; this process is supposed to be helping to inform the Board's decision.

6. Fully analyze acorn planting as a mitigation, per Board direction June 22nd. While acorn planting may be excellent for restoration and supported by the Kuehl Bill, it is not utilized for actual *replacement mitigation* in other counties. Provide monitoring results from other Counties as well as El Dorado County.

7. Provide analysis for the impact of allowing conservation easements to occur within Community Regions and Rural Centers. The drafted policies currently exclude this, but there are MANY acres of oak woodland and other habitat within these regions that will be subject to 100% oak removal and fragmentation. Provide accurate and detailed mapping showing where oak woodlands, rare plant habitat, and migratory trails exist.

8. Discuss what mitigations would be required to encourage regeneration of oak trees if cattle grazing is to be allowed concurrent with conservation easements.

9. Policy 7.4.2.8 currently requires mapping of five specific major habitats to be updated every three years, to identify the amount of important habitat removed because of new development. This requirement has not been complied with and is now being deleted. Why?
    a. New maps that are accurate, detailed, and legible, should be provided with a comparison to the last maps done (10 years ago?)
    b. Has *not* having these updates done as required contributed to connectivity and habitat loss?
    c. Rather than remove the requirement, would an effective solution be to actually comply with it?

10. It is not clear why ministerial development, or agricultural activities, or low income housing, should be exempt from the biological policy requirements- please discuss this, and provide analysis of impacts if they were NOT to be exempted.

11. The NOP (page 7) mentions an Oak Resources Conservation ordinance that is "to be developed" for adoption with the ORMP. This is a vague reference to an important document that the public has not seen. If the retention standards lacked specificity for inclusion, surely this does too, and I would object to this EIR 'blessing' an unknown document.

12. These policies will allow an increase in the conversion of biological habitat into residential use - an impact on Air Quality, Greenhouse Gases, Transportation and Noise seems likely. These categories should not be exempt in this EIR.

13. County staff has expressed to the public that the policies proposed are essentially consistent[1] with the current General Plan. If this were true an EIR would not be necessary. The change to allow 100% tree removal is a significant change that has not been made clear to the public. It must be clarified in the EIR and not buried with declarations of *'there's not really any change'*. There must be a true good faith effort to communicate the policy changes and encourage public discourse in order to be CEQA compliant.

14. If the comments submitted for this NOP reflect general dissatisfaction in the policies themselves, please revisit the drafted policies *prior* to initiating a costly EIR.

A few policy references are attached below for convenience.

Ellen Van Dyke, Rescue

[1] Principle Planner, Purvines, Mountain Dem article "County updating General Plan biological policies"

For Reference:

6/22/15 Motion of the Board requiring oak tree retention standards be included in the EIR:

Public Comment: E. Vandyke, J. Buetler, K.Payne, R.Hargrove, L. Christensen, C. Louis, R. Louis, A. Cantwell, J. Davies

A motion was made by Supervisor Ranalli, seconded by Supervisor Veerkamp to Approve this matter, Adopt Resolution's 108-2015 and 109-2015 and direct staff to:
Consider project alternatives as part of the environmental review process including:
1) Adding oak resource retention standards;
2) Options for Individual Oak Tree (IOT) replacement mitigation (e.g. acorn to 15 gallon potted tree) and associated analysis of the implications for the In-lieu Fee Nexus study based on these options, and
3) Oak resource mitigation requirements related to discretionary and ministerial projects.

Yes: 4 - Mikulaco, Veerkamp , Frentzen and Ranalli

Absent: 1 - Novasel

From the 2005 court decision that lifted the 1999 writ of mandate against the county:

PROCEEDINGS: MOTION FOR REVIEW OF COUNTY'S RETURN TO WRIT OF MANDATE-RULING

process. Thus, issues concerning changes made in former versions of the General Plan are no longer relevant.

Moreover, the County has gone well beyond the direction of the 1999 writ. It has provided a new analysis of the impacts of replacement versus retention of oak woodlands, and it has also eliminated the "replacement" option from the policy as approved. The new, revised canopy protection measure keeps the retention percentages that were adopted in 1996, eliminates replacement as an option in lieu of retention, and requires a replacement of any canopy not required to be retained under the policy. In addition, the current DEIR proposed an alternative to the retention requirements, "Option B", which allows the County to require a project applicant to provide funding for woodland preservation in lieu of on-site canopy retention. The preservation would be at a 2:1 ratio and would allow the County to pool funds and apply them towards acquisition and restoration projects that would preserve larger contiguous blocks of habitat. The County adopted other new mitigation measures regarding oak woodland habitat. (See Mitigation Measures 5.12-1(e) and 5.12-1(g).)

Policy 7.4.1.6 All development projects involving discretionary review shall be designed to avoid disturbance or fragmentation of important habitats to the extent reasonably feasible. Where avoidance is not possible, the development shall be required to fully mitigate the effects of important habitat loss and fragmentation. Mitigation shall be defined in the Integrated Natural Resources Management Plan (INRMP) (see Policy 7.4.2.8 and Implementation Measure CO-M).
The County Agricultural Commission, Plant and Wildlife Technical Advisory Committee, representatives of the agricultural community, academia, and other stakeholders shall be involved and consulted in defining the important habitats of the County and in the creation and implementation of the INRMP.

MEASURE CO-A
Review the Zoning Ordinance (Title 17 of the El Dorado County Code) to identify revisions that accomplish the following:

A. Incorporate tree canopy coverage standards outlined in Policy 7.4.4.4;
B. Develop standards for use of native plants in landscaping [Policy 7.4.5.2];
C. Establish Historic Design Control Combining Zone District and design guidelines for reconstruction and construction of new buildings and the demolition of existing buildings in such districts. Adopt an ordinance amendment implementing historic design review requirements and recordation procedures. [Policies 7.5.2.1, 7.5.2.2, and 7.5.2.4];
D. Develop buffer standards for new non-mining land uses next to existing mining operations [Policy 7.2.2.3];
E. Develop standards for minimizing erosion and sedimentation associated with earthwork and grading [Policy 7.1.2.2].

MEASURE CO-U

Mitigation under Policy 7.4.1.6 shall include providing sufficient funding to the County's conservation fund to acquire and protect important habitat at a minimum 2:1 ratio. The cost associated with acquisition, restoration, and management of the habitat protected shall be included in the mitigation fee. For larger development projects (i.e., those that exceed a total of 10 acres), in addition to contributing to the conservation fund at a minimum 2:1 ratio, onsite preservation and/or restoration of important habitat shall be required at a 1:1 ratio. Impacts on important habitat and mitigation requirements shall be addressed in a Biological Resources Study and an Important Habitat Mitigation Program (described below).

A. Biological Resources Study. The County shall adopt biological resource assessment standards that apply to all discretionary projects that would result in disturbance of soil and native vegetation in areas that include important habitat as defined in the INRMP. The assessment of the project site must be in the form of an independent Biological Resources Study, and must be completed by a qualified biologist. The evaluation shall quantify the amount of important habitat, by habitat type, as defined in the General Plan and delineated on maps included in the INRMP. The Biological Resources Study shall also address the potential for the project to adversely affect important habitat through conversion or fragmentation. This requirement shall not apply to projects that are on lands that either (1) have already been the subject of a study and for which all mitigation requirements are being implemented or (2) have been evaluated by the County and found to not possess any important habitat resources.

B. Important Habitat Mitigation Program. The Biological Resource Study shall include an Important Habitat Mitigation Program that identifies options that would avoid, minimize, or compensate for impacts on important habitats in compliance with the standards of the INRMP and the General Plan. All mitigation programs shall include a monitoring and reporting component requiring reports to the County not less than once each year for a period of not less than 10 years. The report will include a description of the lands included in the mitigation program (including location and size), a summary of the evaluation criteria established at the time the mitigation program was approved, an evaluation of the mitigation program based on those criteria, and recommendations for action during the following year. The County shall adopt standards for evaluating mitigation programs proposed as part of the Biological Resources Study described above. The standards shall ensure that the mitigation reduces direct and cumulative impacts of proposed development on important habitats to less than significant levels in accordance with CEQA thresholds.

Policy 7.4.4.4 For all new development projects (not including agricultural cultivation and actions pursuant to an approved Fire Safe Plan necessary to protect existing structures, both of which are exempt from this policy) that would result in soil disturbance on parcels that (1) are over an acre and have at least 1 percent total canopy cover or (2) are less than an acre and have at least 10 percent total canopy cover by woodlands habitats as defined in this General Plan and determined from base line aerial photography or by site survey performed by a qualified biologist or licensed arborist, the County shall require one of two mitigation options: (1) the project applicant shall adhere to the tree canopy retention and replacement standards described below; or (2) the project applicant shall contribute to the County's Integrated Natural Resources Management Plan (INRMP) conservation fund described in Policy 7.4.2.8.

Option A

The County shall apply the following tree canopy retention standards:

The County shall apply the following tree canopy retention standards: **Percent Existing Canopy Cover**	**Canopy Cover to be Retained**
80–100	60% of existing canopy
60–79	70% of existing canopy
40–59	80% of existing canopy
20–39	85% of existing canopy
10-19	90% of existing canopy
1-9 for parcels > 1 acre	90% of existing canopy

Under Option A, the project applicant shall also replace woodland habitat removed at 1:1 ratio. Impacts on woodland habitat and mitigation requirements shall be addressed in a Biological Resources Study and Important Habitat Mitigation Plan as described in Policy 7.4.2.8. Woodland replacement shall be based on a formula, developed by the County, that accounts for the number of trees and acreage affected.

Article excerpt referenced in footnote 1:

Mountain Democrat

PLACERVILLE, CALIFORNIA

News

County updating General Plan's biological policies

By Chris Daley From page A1 | July 27, 2015

Public hearings will be set

El Dorado County's 2006 Oak Woodlands Management Plan, newly re-christened as the Oak Resources Management Plan, is once again getting a makeover.

Developed by the Long Range Planning Division of the Community Development Agency, the biological policy update project's new resolution of intention was presented by Principal Planner Shawna Purvines at the Board of Supervisors' July 14 meeting. Initially slated on the Consent Calendar, the items were moved off for discussion at the urging of local resident/activist Jamie Beutler and others.

As explained by Purvines, the new ROI was needed because an earlier version "didn't accurately reflect the language of dealing with the ORMP and Rare Plants." Both are part of the General Plan's Chapter 7 — Conservation and Open Space Element — and the issue goes back nearly a decade. The original Oak Woodlands Management Plan was overturned by a court decision, in part, because the county did not adequately address mitigation methods regarding removal or disruption of oaks and oak woodlands in its environmental impact report.

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The recommended amendment removes the A and B Options in favor of "an incentive-based approach."

In separate e-mails and copies of e-mails, Purvines wrote to the Mountain Democrat and to the Green Valley Alliance's Ellen Van Dyke. She said in part, "The board's decision to revise General Plan policy 7.4.4.4 related to oaks is consistent with the 2004 General Plan and essentially consistent with the 1996 General Plan which both included the options of retention 'or' mitigation.

General Plan & Zoning Ordinance Update: Facts & Fiction

4/29/2015

For three years, Supervisors, County staff, and special interest groups with significant involvement in the policy re-write, have repeated the mantra ***"we're just implementing the General Plan ".***

It's time to question that assertion.

Summary compiled for community group's TGPA/ZOU Town Hall meeting April 29, 2015 - last revised 4/18/15

"*implementing*" the 2004 General Plan?

2004 policy to be implemented*	Actual changes proposed (TGPA/ZOU)
Establish open space *protection* measures [Policies 7.6.1.1 and 7.6.1.3D]	Open Space *reduced* under Policies 2.2.3.1, 2.2.3.2, and 2.2.5.4 (from 30% down to 15%), and would be revised to include private yards and off-site area (ZOU 17.28.050B2b)
Update the Zoning Ordinance to *restrict* development on 30% slopes [Policy 7.1.2.1]	*Restrictions are being removed, allowing increased hillside development.* Standards for septic on slopes conflict with State reqmnts; 'new lot' standards moved to the not-yet-complete Land Dev Manual (LDM)
Establish Zoning Ordinance standards to *protect* riparian, creek and woodland areas. [Policies 7.3.3.4, 7.3.3.5, 7.3.4.2, 7.4.2.5, 5.4.1.2].	Setbacks are being *reduced* by 50%, or eliminated altogether , while protections are being deferred. (ZOU 17.30.030G3d & 5 and DEIR section 2.8)
Consider revising noise standards in regard to temporary *nightime construction* activities (ROI 182-2011)	Policy 6.5.1.11 revision *exempts daytime construction* completely, and public projects 24/7.
Review and amend Table 2-4 (zone Consistency Matrix) to clarify, and add new zone districts	Zoning revisions maximize potential development rather than clarify; 37,000 parcels are being rezoned.
Identify and *separate incompatible uses* by setbacks and buffering [Policies 2.2.5.14 and 2.2.5.18]	Policies 8.1.3.1 & 8.1.3.2 are revised to *reduce the buffer* (200' down to 50'); compatability matrix still needed
Minimize noisy and incompatible commercial uses next to residential [Measure LU-D, policy 2.2.5.21, 2.2.5.14/18]	Expanded uses in all zones are broadly integrated for vastly increased compatibility potential
Provide standards and incentives for commercial development [Policies 2.5.2.1, 2.5.2.2, and 2.5.2.3]	Policy 2.5.2.1 revised to incorporate mixed use and provide *residential* component preferences instead
Establish a Scenic Corridor (-SC) Combining Zone District [Policy 2.6.1.6];	Scenic Corridor protections deferred. (Section 17.27.070 '*reserved*' for scenic corridor)
Modify Sign Ordinance standards for scenic corridors [Policies 2.7.1.1 and 2.7.1.2];	Sign Ordinance effort deferred (separate process proceeding without benefit of Scenic Corridor update)
Protect Visual Resources by *restricting* soundwalls on corridor foreground and ridgeline development [Policy 2.6.1.1]	Soundwall requirements *relaxed* rather than restricted (ordinance section 17.37.070A)
All proposed development regulations/ordinances shall demonstrate a public benefit where increased costs are concerned. [Policy 10.1.2.4.3]	Policy 10.2.1.5 is revised to relax the requirement for accountability, changing 'shall be submitted' to 'may' be.
Provide for visual separation between Community Regions [Policies 2.5.1.1 and 2.5.1.2]; Review Community Region boundaries for possible amendments (NOP page 6; ROI 182-2011)	Community Region analysis is being deferred, *in spite of* 1) community support to proceed, 2) General Plan policy direction, 3) the adopted ROI, and 4) inclusion in the NOP for this update.
Create a Dam Failure Inundation (DFI) overlay zone [Policies 6.4.2.1 and 6.4.2.2], to identify parcels within the DFI area.	TGPA proposes *increased* exposure by allowing creation of new parcels in the DFI zone (policies 6.4.1.4 & 6.4.1.5 revisions)
Revise R1A zone setbacks to align with fire code (30')	R1A and R2A unchanged (per Table 17.24.030)

*Examples shown are listed in Exhibits B & C, Legistar File no 08-0061, referenced by Planning as the basis of the ZOU changes. From page one:

"This document will serve to plan and implement the General Plan through the Zoning update process."

DEIR Falsehoods

As presented in the DEIR:	the Reality:
The public is being [erroneously] led to believe that water is not being used for the south of Hwy50 development known as Folsom Specific Plan Area (*RDEIR page 5-27*)	From the Folsom SPA Water Supply Assessment, pg 1: "*the City of Folsom has identified two public water systems that will serve the project- the City of Folsom and* ***El Dorado Irrigation District (EID)*** " *emphasis added*
The public is repeatedly told this update is not density-increasing, that it has limited 'targeted' amendments, and that minimal land use changes are proposed (most recently repeated by Long Range Planning in the BOS hearing 3/17/15 in EDH)	Density increasing changes to policy include- **Policy 2.1.2.5** increase mixed use from 4 units per acre up to 10 (Rural Centers) **Policy 2.1.1.3** increase mixed use from 16 units per acre up to 20 (Community Regions) **Policy 2.2.1.2** multi family from 24 up to 30 units per acre **Policy 2.2.1.2** single family from 5 units per acre to 8 **ZOU 17.24.010C2** omits limits on the no. of units
County Planners insisted throughout the August 2014 Planning Commission hearings and beyond, that entitlements are not being granted through this process.	*37,000 parcels are proposed to be rezoned , many to higher density;* that is an 'entitlement'. *Many new uses are being added to existing zones;* that is also an 'entitlement'. The creation of parcels is not the only way to grant an entitlement, and Planning staff is deceiving the public with this claim.
The public has been told there will be no changes to Specific Plans (RDEIR page 2-2)	**1)** Bass Lake, APN 115-400-12 is proposed to change from natural Open Space to High Intensity Recreational zoning. *This would allow large public structures and lit ball fields in place of the passive trails currently allowed .* This is only 1 of the 37,000 parcels being rezoned. **2)** New ZOU section 17.70 addresses the Bass Lake Hills Specific Plan and fees to assist with development. Neither of these is noted in the Project Description for the update
Mitigation measure TRA-1 locks in 'revised' Measure Y policies that are claimed as 'protections'.	In 2008, Supervisors revised Measure Y traffic policies to exclude verbiage requiring road improvements to be done PRIOR to occupancy. *This change was misrepresented to the public as "clarifying the concurrency requirements"* when it instead allowed development to precede completion of road improvements (RDEIR page 3.9-14) This should not be construed as a 'protection' unless the original verbiage of these policies is returned.
The public has been told that Biological Resource policies will be addressed separately from this update, and setbacks under policy 7.3.3.4 are not shown as changed.	Only the protective policies have been defered; those allowing increased development have been included. New ordinance 17.30.030G3d reduces setback protections of policy 7.3.3.4 by 50% .

conclusion:

- The changes proposed do not represent an "implementation" of the voter approved General Plan.

- 2004 General Plan protections are being reduced or removed.

- The extent of the proposed changes has been misrepresented to the public.

timeline:

May 8, 2005:
2004 General Plan was approved by Voters

March 4, 2008:
County Supervisors directed staff to prepare a comprehensive Zoning Ordinance update to implement the General Plan. *[Board of Supervisor's agenda minutes 3/4/08, Legistar File no. 08-0061]*

March 16, 2015:
March marked the close of public comment for the draft EIR (Environmental Impact Report) for the project.

May 2015:
Anticipated release of the final EIR

Distributed at hearing by John Thomson PC 8/27/15 #2

El Dorado County Planning Commission
El Dorado County Center
Placerville California

Comment on Hearing on TGPA/ZOU, August 27, 2015, Agenda Item 2 (11-0356),.

Dear Sirs,

My name is John Thomson and I live off of Bass Lake Road in El Dorado Hills. My home overlooks the parcel owned by the county generally known as the future Bass Lake Park, and the adjacent property parcel previously owned by the El Dorado Irrigation District which is now owned by the Rescue Union School District and which contains Bass Lake.

Due to a mapping error, caused no doubt by confusion over parcel nomenclature, the Bass Lake parcel is shown on the rezone map as being rezoned from Recreational Facility Low to Recreational Facility High.

The Bass Lake parcel cannot be rezoned because it is included in the El Dorado Hills Specific Plan. The parcel is also in a Rural Center, which I understand precludes it from being rezoned.

This mapping error was pointed out to the County last year, in 2014, in written comments submitted by the Bass Lake Action Committee. However, the map remains unchanged, and rezoned, with respect to the Bass Lake parcel.

The Bass Lake mapping error is acknowledged in the Second Technical Memorandum No, 2 to the Final Environmental Impact Report for the Targeted General Plan Amendment and Zoning Ordinance Update dated August 27, 2015, on page 9 of Exhibit N attached thereto.

It is not clear from the text of the entry on page 9 how the acknowledged mapping error, with its impermissible rezoning effect, is to be corrected. It appears that the proposed remedy is to add the Bass Lake parcel to the County's list of mapping errata (the term "errata" meaning printing errors).

It seems to me that the Planning Commission would like to send the Board of Supervisors a General Plan and Zoning update which is as free of errors as possible.

Therefore I respectfully request the Commission to correct this identified error in the proposed General Plan Amendment and Zoning Ordinance Update before they approve it and send it to the Board of Supervisors for their final approval.

I would be happy to answer any questions to the best of my ability.

John E. Thomson
501 Kirkwood Court
El Dorado Hills, CA 95762
530-677-3039

(Distributed at hearing by John Hidahl)

PC 8/27/15
#2
2 pages

El Dorado Hills Area Planning Advisory Committee
1021 Harvard Way
El Dorado Hills, CA 95762

August 27, 2015

EL Dorado County Planning Commission
2850 Fairlane Court
Placerville, CA. 95667

The El Dorado Hills Area Planning Advisory Committee submitted a multi-page list of concerns and questions related to the changes introduced by the RDEIR. From the responses received, it is clear that County Planning has little or no intent to consider any mitigation measures in EDH that are directly associated with the TGPA and more importantly ZOU modifications proposed. While the impacts are significant in many cases, the responses indicate that they are unavoidable. This position is not a good faith and reasoned response, but rather a predetermined expectation……live with it.

The changes proposed to the ZOU in the sake of "Updating the zoning map to conform to the General Plan land use designations" constitutes an entitlement process wherein land owners are automatically granted higher density projects without any consideration of needed impact mitigation or conditional requirements. This is wrong and must be recognized for what it means for EDH….the developers will be allowed to circumvent the Measure Y provisions of the General Plan regarding LOS constraints on Highway 50 and many of the major circulators.

The 'no project' alternative in the RDEIR best serves the community of EDH by not making a bad situation worse. But alas, County Planning has declared that the stated goals of the TGPA identified in Section 2.3.1 cannot be accomplished by the no project alternative or any other reasonable alternative for that matter. This conclusion is inappropriate and misleading. For EDH, the issue is poor planning and execution, not the need for higher density projects.

The first goal is to: Encourage and support the development of housing affordable to the moderate income earner. While this is a noble goal, for EDH it is not attainable given all of the high development fees that were dictated by the lack of previous County BOS to require developers to pay their fair share of capital improvement costs, and the huge inefficiencies that exist in County government.

The second goal: Promote and Support the creation of jobs has very little to do with updating the TGPA. In EDH it has more to do with the lack of comprehensive and executable economic development policies that are competitive with adjacent communities.

The EDH Business Park is a prime example of a 'golden opportunity' that has never reached its potential, and continues to struggle for survival.

The third goal: Increase capture of sales tax revenues for EDH means providing more shopping opportunities, quality restaurants and the retail businesses that compete with the offerings of Broadstone, La Borgata and other Folsom establishments.

The fourth goal: Promote and protect agriculture in the County is minimally applicable to EDH, but does not require any TGPA changes.

The fifth and final goal: Revise existing General Plan policies and land use designations to provide clarity while keeping land use map changes to a minimum appears to be a goal to override the voter approved General Plan provisions with multiple high impact changes under the veil of 'clarity'. The residents of EDH do not support these changes as evidenced by the County funded CEDAC-EDH survey. Don't fix what isn't broken.

The Planning Commission serves the BOS as the resident's liaison/representatives to the Board for Planning matters. **Please thoroughly review the residents needs/concerns relative to the proposed changes and offer other alternatives to the draft FEIR that truly focus on mitigating the impacts to every community in El Dorado County.** APAC will be submitting a more thorough response to the proposed FEIR based upon the outcome of today's Planning Commission meeting.

Sincerely,

John Hidahl

John Hidahl
EDHAPAC TGPA & ZOU Subcommittee Chairman

Cc: APAC file

(Distributed at hearing by Janine Jones) PC 8/27/15 #2

August 26, 2015

To Whom It May Concern:

We would like to express our appreciation to the long range planners for including in the amended general plan for El Dorado County increased square footage for granny flats. We believe this is a pro-family stance and we applaud this. It is our hope that this provision will be in the completed general plan that will be going to the supervisors for their approval. 1600 square feet for a 10 acre parcel is a huge improvement and we hope this provision will remain.

Thank you.

Signed:

Janine Jones 2820 Ivy Knoll Dr Placerville, CA 95667

Heather McKee 6884 Monitor Ct. El Dorado, CA 95623

Edith Stewart 6498 American Way, Placerville

Joan Evans 6535 Butterfield Wy, Placerville.

Ron Evans " " " "

Steve Cyphers 2100 Valley View Parkway #2116 El Dorado Hills

Wayne Eckerman 4321 Forni Rd, Placerville

Lisa Sutton 1460 Nesting Way Placerville

Nancy Schoonover 4321 Forni Rd, Placerville

William Norton 2838 Barkley Rd. Camino, CA 95709

Melanie Norton " " " " "

John Hughes 1050 Bethany Lane, Placerville, CA 95667

Michael W Jones 2820 Ivy Knoll Dr Plac. CA

(Distributed at hearing by Cheryl Langley) PC 8/27/15 #2

30 pages

Public Comment
Planning Commission Meeting
August 27, 2015
Agenda Item #2; File # 11-0356

Cheryl Langley
Shingle Springs Resident

Among ***numerous*** concerns, implementing this project will mean already fragile groundwater (GW) supplies will be overburdened.

- EID indicated GW sources in most of the County are unreliable;
- DWR says they are an uncertain source for residential development; and
- The EIR acknowledges ***"groundwater is not a reliable source of water in areas that are not served by a public water system..."*** (RDEIR, page 3.10-18).

In fact, the EIR predicts:

- The TGPA/ZOU will **deplete GW supplies to the extent that pre-existing wells will drop to a level that will not support existing or planned uses; and**
- the project will have a significant impact on GW due to **"Increases in the number of wells...without accounting for total available water supply..."**

Despite the fragility of the resource:

- Development in Community Regions and Rural Centers—the areas of highest density development—will be supported by GW.
- The TGPA/ZOU will allow commercial and industrial land uses in Rural Regions.
- Home occupations will be allowed to expand into rural areas, and these may include commercial and industrial activities.
- The TGPA/ZOU would add over 17,000 acres to Agricultural Districts, and expand allowable uses. Agricultural uses—orchards, vineyards, livestock—and activities that will be allowed such as B & Bs, health resorts and retreat centers—will significantly increase GW demand.

This added use of GW can cause aquifers to fall into "overdraft." The result is wells go dry. Your well goes dry. Maybe your neighbor's well goes dry, too.

And contamination of GW resources is a given:

- The County's aquifers are easily contaminated by septic systems and other sources of contamination.
- Contamination of GW will be a problem in rural areas where wells and septic tanks are co-located with industrial, commercial, and recreational facilities (off-highway vehicle use, public utility facilities, etc.)

And it gets worse:

- **No federal, state, or local entities oversee water quality in the County's domestic wells.** A recent study of nearly 400 private domestic wells in the County revealed 30 percent failed primary drinking water standards.
- There are about 175 community water systems in the County; many small water system operators fail to comply with monitoring requirements.
- Over 63,000 residents of the County are completely reliant on public well water systems that received health violations on two or more occasions during a 2002-2010 compliance cycle.

While development of a Ground Water Management Plan (GWMP) for the County has been suggested as a possible mitigation measure that could reduce the impact of development in GW/septic dependent areas, this suggestion has been wholly disregarded—fought, in fact. The EIR concludes: *"...it would be speculative to conclude that a water reliability project would be an achievable and practical mitigation measure."* But development of a GWMP is a routine, proven, and effective mitigation measure. The refusal to mitigate GW quantity/quality impacts under this project is inexcusable

Please, Commissioners--Deny this project.

Establishing a Ground Water Management Plan

- EDC has not established a **Groundwater Management Plan** even though existing General Plan policies and objectives commit to water supply management.
    - **Policy 5.2.3.3:** "The County shall develop and maintain a map and database of private well water production and other appropriate information."
    - **Policy 5.2.3.6:** "The County shall assess and analyze the well data gained since the permit process started in 1990. Such data should be used to identify areas of likely groundwater supply limitations. At the completion of this analysis period, the County should determine if the General Plan uses within the areas of water supply limitation are compatible with identifiable supply limitations and modify the General Plan uses, if necessary."
    - **Objective 5.2.1:** County-Wide Water Resources Program. "Establish a County-wide water resources development and management program to include the activities necessary to **ensure adequate future water supplies consistent with the General Plan.**"
    - **Policy 5.2.1.1:** "The El Dorado County Water Agency shall support a County-wide **water resources development and management program** which is coordinated with water purveyors and is **consistent with the demands generated by the General Plan land use map.**"
    - **Policy 5.2.1.2:** "An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development."
    - **Policy 5.2.1.4:** "**Rezoning and subdivision approvals** in Community Regions or other areas dependent on public water supply shall be subject to the availability of a **permanent and reliable water supply.**" (This provision applies to groundwater, too.)
    - **Policy 5.2.1.9:** "In order to approve the tentative map or building permit for which the [Water Supply Assessment] was prepared the County must (a) find that...the **water supply from existing water supply facilities will be adequate to meet the highest projected demand associated with the approval on the lands in question...**"
    - **Objective 5.2.3:** Groundwater Systems. "Demonstrate that water supply is available for proposed groundwater dependent development **and protect against degradation of well water supplies for existing residents.**"
    - **Policy 5.1.2.2:** "Provision of public services to new discretionary development **shall not result in a reduction of service below minimum established standards to current users...**"
- Data collected under policies 5.2.3.3 and 5.2.3.6 are currently available. **These data can be used to identify well production within the County and provide a basis for land use planning.**
- The Department of Water Resources—and recent legislation—stresses the importance of establishing **Groundwater Management Plans.**
- Allowing development in areas that lack adequate groundwater supply is irresponsible, and unethical. Identifying areas in which development *would not* be supported by groundwater resources *is* responsible planning, and is the planning residents deserve and expect the County to provide.

Cheryl Langley
5010 Mother Lode Drive
Shingle Springs, CA 95682

Planning Commission
Rich Stewart, Chair, District 1
Dave Pratt, First Vice-Chair, District 4
Brian Shinault, Second Vice-Chair, District 5
Gary Miller, District 2
Tom Heflin, District 3

Date: August 27, 2015

Subject: TGPA/ZOU; Agenda Item # 2; File # 11-0356; PC Meeting August 27, 2015

Planning Commission Members:

I've attached comments on the groundwater (GW) and water quality sections of the TGPA/ZOU EIR.

Items 1 -9 describe problems with the project itself, and with the EIR provided to the public for the purpose of full disclosure of project impacts.

1. Not disclosed is the fact that GW will be used to support the highest density development (in Community Regions/Rural Centers).
2. Development proposed under the TGPA/ZOU will place "significant and unavoidable" pressure on GW resources, but this impact is alternately acknowledged and denied.
    - The EIR presents language that existing policies ensure adequate GW supply, (but also contradicts this language) and indicates the extent of development "cannot be known."
    - It is acknowledged that development under the TGPA/ZOU will cause a drop in aquifer volume to a degree that the local GW table will no longer support existing or planned land uses for which permits have been granted, but possible mitigation is rejected.
3. Contamination of GW from the expansion of development in areas of GW/septic reliance is a given under TGPA/ZOU development proposals, but it is argued existing policies protect wells.
4. TGPA/ZOU allowable placement of septic systems on slopes ≥30 percent will violate SWRCB onsite wastewater treatment systems (OWTS) policy (at the >25 percent level).
5. Viable mitigation (development of a Ground Water Management Plan (GWMP) for the purpose of land use planning) is rejected; flawed "reasoning" is used to justify rejection.
6. Data presented by ICF to characterize GW in County is from a DWR study type ICF could not identify; data could easily be "misunderstood/misinterpreted" by the public.
7. ICF clouds the issue of what constitutes a planning document: Repeatedly presents concept that the "TGPA/ZOU **EIR** is not a planning document" to turn attention away from the fact that the TGPA/ZOU **is** a planning document.
8. ICF indicates relevant discussions are "outside the scope of the EIR," and/or directs reviewer to get information elsewhere.
9. Miscellaneous issues.

1. Not disclosed is the fact that GW will be used to support the highest density development (in Community Regions/Rural Centers).

These excerpts indicate GW won't be used in areas of highest density...

ICF Response, page 9-240

groundwater supply and minimize impacts to groundwater quality. The TGPA would not substantially increase the overall level of development analyzed in the 2004 General Plan EIR and there are several General Plan policies that act to restrict development in areas where public water supplies are not available. The County General Plan has a number of groundwater related policies

Impact Discussion, (RDEIR, page 2-24): *"No specific development projects are being proposed as part of the TGPA and Zoning Ordinance Update. General plan policies require that site-specific developments with* ***substantial water needs*** *occur only in* ***community areas*** *and* ***rural communities*** *where adequate utilities are available. Water purveyors in the County of El Dorado rely* ***primarily*** *on surface water supplies, so* ***future projects would not substantially deplete groundwater supplies. The project would have no impact.***" (NOTE:

But the RDEIR says the TGPA/ZOU does expand intensive development in (rural) areas that would rely on GW:

RDEIR, page 5-29: *"Future development under the TGPA/ZOU will place greater demands on groundwater supplies in those parts of the West Slope that are not served by public water agencies.* ***This will be compounded*** *by components of the ZOU such as ranch marketing, rural industrial, and home occupations that can intensify very localized water demands in rural areas where groundwater is the sole source of water."*

And, *"increases in the number of wells and water demand on the county's fractured rock aquifers* ***without accounting for total available water supply*** *in the affected aquifers and their ability to meet cumulative demands..."* will mean that *"****[t]he TGPA/ZOU will make a considerable contribution to this significant impact.****"*

RDEIR, page 3.10-19: ***New land uses under the ZOU:*** *"There are a number of land uses that are included in the ZOU that are not found in the current Zoning Ordinance...they include uses such as industrial - general, public utility service facilities - intensive, and ski area that can have large water demands.* ***However, because there is no means of knowing how many, if any,***

And here, the language change makes it clear that GW will be used in areas of the highest density development:

TGPA/ZOU dEIR, page 3.6-5: "**Policy 5.2.1.3** would be revised such that medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects **may** be required to connect to **public water systems** if reasonably available when located within **Community Regions** and to either a **public water system** or to an approved **private water systems in Rural Centers**. The current policy requires such development to be connected to public water systems in Community Regions." O-Recirc

- Not only changes language to "**may**," but says "**if reasonably available**."

- And actually, both "**public**" and "**private" water systems** can be GW based ("public" = as few as 15 connections—see definitions below).

From C. Langley comments on the RDEIR:

> **"Public water system,"** while not defined in the current El Dorado County Municode (Chapter 8.39—Well Standards), ***is*** **defined in the El Dorado County "*Final Draft of Proposed Well Construction & Water Supply Standards Ordinance*" dated August 14, 2014 and on the County website:**
>
> ***"Public water system"*** *means a system for the provision of water for human consumption through pipes or other constructed conveyances that has* ***15 or more service connections or regularly serves at least 25 individuals daily*** *at least 60 days out of the year. Public water systems can be either* ***Community*** *(a public water system that serves at least* ***15 service connections*** *used by yearlong residents or regularly serves at least* ***25 yearlong residents*** *of the area served by the system); Non-community (a public water system that is not a community water system); or Non-transient non-community (a public water system that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year). (This includes systems regulated under Cal Code (California Health and Safety Code).*
>
> **"Private water system"** most probably includes private wells, although this term does not appear to be defined. The current Municode (Chapter 8.39) does not define private water system, nor does the draft revision of Chapter 8.39 (draft August 14, 2014).

From C. Langley comments on the RDEIR:

> But it is clear that **both *public* and *private* water systems will be based on groundwater—and both are allowed to support development even in areas planned for the highest densities—Community Regions.** (The language in Policy 5.2.1.3 is proposed to be changed to "**may** be required to connect to public water systems"—which implies even a private water system could meet requirements in a Community Region.) For **Rural Centers, "community water systems"**—a water system that serves 15 connections or greater—**are most probably also based on groundwater.** O-Recir

This fact is never acknowledged: ICF "skirts" the issue in their response (O-Recirc – 1-99).

Page 9-244:

> RDEIR that the impact on groundwater will be significant and unavoidable. The Commenter is correct that new water systems outside of the three primary public water district service zones (EID, GDPUD, GFCSD), would rely on groundwater, which also supports the conclusion in the RDEIR. Even if there's a water system using groundwater as its source, future development will still be constrained by a lack of service if the source is unreliable. No water system will reasonably extend service when it is known that it lacks a reliable supply. In this case, new development or the addition of agricultural lands in areas that are not served by the three primary public water districts would be limited based on a preliminary assessment of groundwater supplies within the area.

And finally, from **Master Response 6**, Section 8.7.2: Groundwater Supply:

Page 8-27.

> There are several General Plan policies that act to restrict development in areas where public water supplies are not available. The following policies would apply to development under the TGPA and ZOU.

General Plan Policy 5.2.1.3: All medium-density residential, high-density residential, multifamily residential, commercial, industrial and research and development projects shall be required to connect to public water systems when located within Community Regions and to either a public water system or to an approved private water systems in Rural Centers.

This policy limits the potential for development with higher water demands to be allowed in portions of Community Regions where groundwater is the only water source.

Clearly the author of ICF's Master Response is unaware that this policy is being amended under the TGPA/ZOU; if the consultant is not aware of the language change—and its impact—how is the public to be expected to follow the policy?

2. Development proposed under the TGPA/ZOU will place "significant and unavoidable" pressure on GW resources, but this impact is alternately acknowledged and denied.
   - The EIR presents language that existing policies ensure adequate GW supply, (but also contradicts this language) and indicates the extent of development "cannot be known."
   - It is acknowledged that development under the TGPA/ZOU will cause a drop in aquifer volume to a degree that the local GW table will no longer support existing or planned land uses for which permits have been granted, but possible mitigation is rejected.

ICF claims that even if GW is used to support development, future development would *"...be limited based on a preliminary assessment of GW supplies within the area."* (Evaluation would be suspended until "later," when a project is proposed.)

Page 9-244:

The information provided by the Commenter about water systems supports the conclusion of the RDEIR that the impact on groundwater will be significant and unavoidable. The Commenter is correct that new water systems outside of the three primary public water district service zones (EID, GDPUD, GFCSD), would rely on groundwater, which also supports the conclusion in the RDEIR. Even if there's a water system using groundwater as its source, future development will still be constrained by a lack of service if the source is unreliable. No water system will reasonably extend service when it is known that it lacks a reliable supply. In this case, new development or the addition of agricultural lands in areas that are not served by the three primary public water districts would be limited based on a preliminary assessment of groundwater supplies within the area.

Page 9-241

In addition to County ordinances, Senate Bill 610, requires that a water supply assessment (WSA) be prepared for large projects that meet specific criteria[7]. The primary goal of the WSA to determine is whether the projected water supply for the next 20 years (planning horizon) – based on normal, single dry, and multiple dry water years – would meet the demand projected for the proposed project plus the existing and planned future uses, including agricultural and manufacturing uses. Should private groundwater supplies be needed, the ability for the aquifer to provide the water will be evaluated as part of approval of a proposed project. These efforts, among others, will help the County manage and track groundwater supplies.

But this is contradicted by the excerpt below that says the *"increases in the number of wells and water demand ...**without accounting for total available water supply...and their ability to meet cumulative***

***demands**...will mean that the TGPA/ZOU will make considerable contribution to this significant impact"* on GW supplies.

RDEIR, page 5-29: *"Future development under the TGPA/ZOU will place greater demands on groundwater supplies in those parts of the West Slope that are not served by public water agencies.* ***This will be compounded*** *by components of the ZOU such as ranch marketing, rural industrial, and home occupations that can intensify very localized water demands in rural areas where groundwater is the sole source of water."*

And, *"increases in the number of wells and water demand on the county's fractured rock aquifers* ***without accounting for total available water supply*** *in the affected aquifers and their ability to meet cumulative demands..."* will mean that *"**[t]he TGPA/ZOU will make a considerable contribution to this significant impact."***

And then the RDEIR lists this impact:

RDEIR, page 3.10-27: Impact WS-2: Substantially deplete groundwater supplies or interfere substantially with **groundwater recharge**, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted) (significant and unavoidable).**

And, reliability becomes a gamble:

RDEIR, page 3.10-28: *"In the case of large projects that would have a water demand equivalent to* ***500 or more residential units****, a [Water Supply Assessment] WSA would be required...* ***When required,*** *the WSA would inform decision-makers and the public of the availability of water (or lack thereof) to supply the proposed use.* ***However, neither a CEQA analysis nor a WSA is required to ensure that water would be available to meet project demands..."***

And finally: **RDEIR, page 3.10-30: "...it would be speculative to conclude that a water reliability project would be an achievable and practical mitigation measure."** O-Rec

ICF extricates itself from the discussion by saying there is **no way of knowing how many projects (if any) will be built**, (i.e., we're not going to analyze the potential impact to GW resources).(Next two excerpts.)

RDEIR, page 3.10-19: ***New land uses under the ZOU:*** *"There are a number of land uses that are included in the ZOU that are not found in the current Zoning Ordinance…they include uses such as industrial - general, public utility service facilities - intensive, and ski area that can have large water demands.* ***However, because there is no means of knowing how many, if any, of these uses might be built, where they might be built, their actual activities and related water demands, and what, if any, water conservation measures may be employed, the impact of these prospective use categories on water supplies cannot be reasonably ascertained without engaging in pure speculation. For that reason, they will not be analyzed further."*** *These uses would be allowed only upon prior approval of a discretionary permit."*

Impact Discussion, (RDEIR, page 2-24): *"No specific development projects are being proposed as part of the TGPA and Zoning Ordinance Update . General plan policies require that site-specific developments with* ***substantial water needs*** *occur only in* ***community areas*** *and* ***rural communities*** *where adequate utilities are available. Water purveyors in the County*

3. Contamination of GW from the expansion of development in areas of GW/septic reliance is a given under TGPA/ZOU development proposals, but it is argued existing policies protect wells.

- Given the nature of fractured rock aquifers (as opposed to alluvial aquifers), contamination of GW by septic is a predictable outcome. County policy that requires septic to be 100 feet from well installations is *not necessarily* protective; this measure is more appropriate for areas with aquifer *basins* where water percolates through gravel/sand/silt before reaching GW.

- The following discussion by ICF actually exposes a misunderstanding of the GW system in the County, and includes numerous caveats.

O-Recirc-1-114

In a request for information, the Commenter asks how the County's Septic System Minimum Setback Requirements protect groundwater systems, given the easy conveyance of septic effluent to wells that draw water from the fractured rock aquifers of El Dorado County. The County's regulatory well setbacks are determined using a sound understanding of groundwater systems and the type of activities that occur in the area. The distance accounts for the amount of sand, gravel and clay between a well and septic system to filter out contaminants before they reach groundwater water wells. The required 100-foot setback between a well and your septic system provides relatively good protection against bacteria and viruses when it is working properly (El Dorado County 2004).

- This response refers to *"the distance accounts for the amount of sand, gravel and clay between a well and septic system"* (which may be virtually none—or not enough—in areas of fractured rock aquifers). This "protective" measure is more effective in areas of GW basins.
- The caveats include:
  - "provides relatively good protection"
  - "when it is working properly."

- The primary concern over this measure is that with the new allowable industrial development in rural areas under the TGPA/ZOU, adjacent residents could experience chemical contamination of GW supplies—a phenomenon that could make domestic wells unusable for decades.

4. TGPA/ZOU allowable placement of septic systems on slopes ≥30 percent will violate SWRCB onsite wastewater treatment systems (OWTS) policy (at the >25 percent level).

- The County will be in violation of the OWTS policy that says "*natural ground slope in all areas used for effluent disposal shall not be greater than 25 percent*" if development is allowed on rural properties composed of slopes ≥30 percent (or in this case >25 percent). Even the County's "reasonable use clause" does not nullify this requirement.

  General Plan Objective 7.1.2 also specifies "septic systems may only be located on slopes under 30 percent." This statement excludes the "reasonable use" clause as well.

This was pointed out to ICF; their response indicated the County need not comply "as of yet": the County has 60 months after May 13, 2017 to comply. This time is fast approaching.

> **Local agencies must submit their draft LAMP to the regional board by May 13, 2016, and the Regional Board must approve the LAMP by May 13, 2017. The effective date of the Policy was May 13, 2013, but local agencies may continue to implement their existing OWTS permitting programs for 60 months after the effective date of the Policy. (State Water Resources Control Board 2015). Therefore, El Dorado County has not needed to comply with the OWTS policy as of yet.**

5. Viable mitigation (development of a Ground Water Management Plan (GWMP) for the purpose of land use planning) is rejected; flawed "reasoning" is used to justify rejection.)

For this discussion, ICF presents the following arguments:

A. A GWMP is not within the scope of the EIR.
B. Existing Data is Not Adequate for Developing a GWMP.
C. There is Not Enough Data to Develop a GWMP
D. Developing a GWMP Would Cost Too Much
E. A GWMP is Not Necessary: The County Already Manages GW
F. Other General Plan Policies Fill the Role of a GWMP and Ensure Adequate GW Supplies

A. A GWMP is Not Within the Scope of the EIR

ICF Response, page 9-240:

> **The development of Groundwater Management Plans (GWMPs) is not within the scope of the TGPA. The EIR examines the impacts of the proposed plan amendments on existing conditions within the County; it is not in itself a planning document, nor is it expected to expand the proposed project to include an extensive (and expensive) new component.**

Page 9-242.

zoning districts upon approval of conditional use permits. In any case, given that this is a program EIR evaluating broad general plan amendments and zoning ordinance update, it is not necessary to develop a detailed study of groundwater to be able to characterize the resource, analyze the potential effects of the project, and to conclude that the impacts of future development in comparison to existing conditions will result in SU impacts on groundwater.

Page 9-246:

County-wide or localized level. As described in Master Response 1, the EIR for the TGPA/ZOU is a "program EIR." That is, an EIR prepared for a series of actions that can be characterized as one large project and that are related in connection with the issuance of regulations and plans. The proposed TGPA/ZOU is the project for which the EIR was prepared. Therefore, the degree of specificity in the TGPA/ZOU EIR corresponds to the degree of specificity contained in the proposed TGPA/ZOU.

Page 9-243:

septic tanks and wastewater ponds is probable. This is a policy issue; preparing a GWMP is outside the scope of CEQA to characterize, analyze, and disclose the impacts of the project. As described in

- Developing a GWMP **is** within the scope of the TGPA/ZOU; the TGPA/ZOU is a land use planning tool that should use all available information. (County well data is available.)
- It was not suggested the GWMP should be developed under the **EIR**—or that the **EIR** is a planning document—but the TGPA/ZOU is a planning document. (This is a "false argument.")
- ICF then says (secondarily) the reason for not developing a GWMP is **cost** (repeated many times throughout the text). **Development of a GWMP is either within the scope of the TGPA or not—cost is a moot point if you really believe it's outside of the scope**.
- Why would cost be a valid reason for not instituting necessary mitigation in this instance?
- ***Why not*** use the well data available GW/well data collected by the County since 1990 to develop a mitigation strategy?

B. **Existing Data is Not Adequate for Developing a GWMP.**

In an attempt to discredit the validity/value of well data (accessed via GOTNET) as a basis for a GWMP (and land use planning), ICF said:

Page 9-242:

is necessary to a comprehensive analysis. The County's GOTNET data presented by the commenter with well depths and production rates in gallons per minute (gpm) is also not comprehensive, long-term data. In fact, it represents only instantaneous measurements, as opposed to long-term monitoring, and because of the variable nature and undefined boundaries of the fractured aquifers, instantaneous measurements are insufficient to characterize changes that may be occurring within any given aquifer. The State Water Resources Control Board's GAMA data used for the Voluntary Domestic Well Assessment Project El Dorado County Data Summary Report (SWRCB 2005) was developed to characterize groundwater quality presents median depths of wells surveyed in 1978 (Carla Calkins, Water Well Survey Report, June 1978). This is historical data, over 35 years old, and is not linked to any data points since that time. It is of limited use in characterizing existing conditions. In addition, groundwater depths along Highway 50 between Placerville and South Lake

- Of course the GOTNET data is not "comprehensive"—whatever that means (irrelevant). Nonetheless, there is enough data available at the County level (accessed via GOTNET) to use as a basis for tailoring land use to GW availability/reliability.

  County policy 5.2.3.6 states exactly this purpose for the collection of such data:

> **Policy 5.2.3.6:** *"The County shall assess and analyze the well data gained since the permit process started in 1990. Such data should be used to identify areas of likely groundwater supply limitations. At the completion of this analysis period,* ***the County should determine if the General Plan uses within the areas of water supply limitation are compatible with identifiable supply limitations and modify the General Plan uses, if necessary.***"
>
> O-Recirc

- The ICF comment is a distraction from the real issue: there is ample data in the GOTNET system upon which a GWMP and land use planning could be based.
- ICF is constructing this argument in part to discredit criticism of their usage of Table 3.10-2 to characterize County GW whose DWR study source they were unable to confirm (the *kind* of study it actually was). **The study cited by ICF presents only one data point per year in an undisclosed location.**

  Table 3.10-2 **misleads** reviewers into believing the County's GW resources are more easily accessible/plentiful than they actually are. (More on this topic later.)
- The comment regarding the SWRCB data being obsolete because it is 35 years old reveals a misunderstanding of GW and GW sources.

ICF continues the discussion about the unreliability of the GOTNET well data with an irrelevant discussion.

Page 9-242-243:

> In addition, groundwater depths along Highway 50 between Placerville and South Lake Tahoe are monitored by the USGS as a result of several large landslides that occurred in January 1997. In many landslides, infiltration of rainfall or rapid snowmelt increases groundwater pressures. These elevated pressures can, in turn, trigger landslide movement. Data are collected every 15 minutes and displayed on graphs (USGS 2015). However, these data do not help characterize groundwater conditions in Western El Dorado, where most of the private drinking water wells are located.

ICF continues an attempt at discrediting available data:

Page 9-243:

> Therefore, although there is well information available, it is still not sufficient to provide the detailed analysis needed to adequately characterize groundwater conditions in the western portion of the County. The data that is available (i.e., GOTONET, State Water Board, DWR, and USGS) is not comprehensive, it consists of one-time observations or at too few well locations to (1) map/identify the boundaries of the groundwater aquifers or the sources of supply; (2) accurately characterize groundwater supplies within the fractured aquifers; (3) identify specific aquifers where wells are non-productive over the long term; (4) characterize the use/recovery rates within aquifers; or (5) provide other data points necessary to preparing a GWMP. Given these limitations, the RPDEIR has

- This is an **inaccurate/misleading analysis**. The available data could be used to develop a GWMP and assist with land-use planning decisions.
- The ICF description of data "inadequacies" does not impact its value as a basis for GWMP development (more on this topic under sections C & E below).

C. There is Not Enough Data to Develop a GWMP

Page 9-243:

> **The Commenter discusses the development of a GWMP and states that the County has the data necessary to develop a GWMP, and existing law authorizes local agencies to adopt and implement a GWMP. As stated in the TGPA/ZOU EIR, "historical data on groundwater levels is quite limited" (p. 3.10-4), and sufficient data is not available on the variable nature of the groundwater fractures. As discussed in the response to I-Recirc-1-97, there is not enough data to develop a GWMP at this time.**

- **Actually, you don't need "historical data on GW " to develop a GWMP** according to DWR's Bulletin 118 (page 54). A GWMP simply requires the administering agency (**if they want to be eligible for the award of public funds** administered by DWR for construction of GW projects or GW quality projects) to establish:
  - Basin management objectives;
  - Components related to monitoring and management of GW levels, etc.;
  - A plan to involve other agencies that overly the GW basin (in basin areas);
  - Adoption of monitoring protocols; and
  - A map showing the area of the basin (in basin areas), or in non-basin areas preparation of a plan using geologic and hydrologic principles appropriate to the area.

- The County has the data to identify areas where wells may not be productive over the long-term, and base land-use planning on that information. The county has adequate data for developing a GWMP—in fact, it doesn't actually require data for GWMP development—only the promise of acquiring data and managing GW resources based on information gathering.

D. Developing a GWMP Would Cost Too Much

Page 9-243:

> **where no alluvial basin exists. In general, the County chooses not to undertake preparation of a GWMP because of the cost of such a venture. Prior to the Sustainable Groundwater Management Act**

- Cost is not a valid reason for not developing an important land use planning tool (mitigation measure).

E. A GWMP is Not Necessary: The County Already Manages GW

ICF acknowledges the County has well data, and says it is **adequate to "manage" GW to the degree that adequate supply is ensured,** but somehow it is not adequate to develop a GWMP for land use planning.

Page 9-247.

O-Recirc-1-105

In a request for information, the Commenter asks that a GWMP be established based on data now available in County records, and include this plan in a recirculated draft EIR. As stated in Response O-R-1-98, existing law does not mandate the adoption and implementation of a GWMP in El Dorado County where no alluvial basin exists. In general, the County chooses not to undertake preparation of a GWMP because of budgetary constraints. The various policies and implementation measures in the Public Utilities element described above in the Response to O-Recirc-1-95 help to fulfill the similar GWMP goal of managing groundwater to ensure a long-term, sustainable, reliable, good quality groundwater supply. In addition, as described in Response to O-Recirc-1-96, there is not sufficient information to provide the detailed analysis needed to adequately characterize groundwater conditions in the western portion of the County.

Page 9-241.

The County Environmental Management Department also collects individual well data, on a well-by-well basis. This information is available in the County's GIS (http://gem.edcgov.us/gotnet/). However, the County has not mapped the coverage of groundwater aquifers, nor the associated aquifer capacities.

Although these examples do not comprise a County GWMP, they do represent the County's efforts to monitor and manage groundwater resources within the County. With consideration of the County's budgetary constraints, these efforts are effective at managing groundwater use and supply within the County. In addition, these efforts could ultimately be expanded to build the data record needed to develop a GWMP in the future.

- Here a **contradiction** is revealed. It is argued there is enough GW information to **manage GW resources to the degree that the County can "ensure sufficient GW" for development, but not enough information to develop a GWMP (or to facilitate land use planning under the TGPA/ZOU).**
- It is argued a GWMP cannot be completed because the County has not mapped GW aquifers, "nor the associated aquifer capacities." But it appears development of a GWMP requires only the **mapping** of the area of **regulatory jurisdiction**—especially in the case of areas with fractured rock aquifers—**and certainly not aquifer capacities** (see excerpt from **Bulletin 118** below). And, actually, apparently this component is only required if the County wishes to qualify for "the award of public funds administered by DWR for the construction of GW projects or GW quality projects.
- Finally, ICF argues a GWMP has not/cannot be developed because of **budgetary constraints**.
- It is not argued, however, that the data cannot be used for land use planning purposes under the TGPA/ZOU.

Excerpt from **Bulletin 118**, page 55 that describes the necessary components of a GWMP:

6) A map showing the area of the groundwater basin as defined by DWR Bulletin 118 with the area of the local agency subject to the plan as well as the boundaries of other local agencies that overlie the basin in which the agency is developing a groundwater management plan (Water Code, § 10753.7 (a)(3)).
7) For local agencies not overlying groundwater basins, plans shall be prepared including the above listed components and using geologic and hydrologic principles appropriate to those areas (Water Code, § 10753.7 (a)(5)).

What additional "reasons" has ICF provided for not establishing a GWMP?

Page 9-243.

> was voluntary; not mandatory. With the adoption of the recent SGMA, groundwater sustainability plans are now required by January 31, 2020, for all high or medium-priority basins in overdraft condition and by January 31, 2022, for all other high- and medium-priority basins unless legally adjudicated or otherwise managed sustainably. This requirement does not apply to the majority of El Dorado County because it is not within a groundwater basin. DWR's Groundwater Sustainability

- While GWMPs are not required in non-basin areas, they are authorized in non-basin areas, and DWR encourages development of GWMPs (and implementing ordinances) in areas with only fractured rock aquifers.
- These data could be used for land use planning.

F. **Other General Plan Policies Fill the Role of a GWMP, and Ensure Adequate GW Supplies.**

Page 9-244:

> The various policies and implementation measures in the Public Utilities element described above in the Response to O-Recirc-1-95 require information gathering, information availability, and decision-making based on available groundwater. Although this doesn't cover all the information required for a GWMP, it is similar in its goal of managing groundwater to ensure a long-term, sustainable, reliable, good quality groundwater supply. In addition, it consists of what the County's elected legislative body considers to be a feasible set of actions to reduce the impact of future development on groundwater.

- ICF is now saying—based on other policies in the GP and what the BOS says is okay—enough is done to protect GW—it's nearly a GWMP. (Now ICF says the data *is* being used for GW management); but it's clear the **data is not being used for GW management/land use planning under the TGPA/ZOU**; in fact use for that purpose is being resisted.

The following is intended to be an example of how the County's development proposals "ensure that there is sufficient GW":

Page 9-241:

> The County Environmental Management Department has developed and made available, *A Guide for the Private Well Owner*, as well as an informational page on *Typical Water Demands For Rural Residential Parcels* (http://www.edcgov.us/Water_Well_Program.aspx). In addition, each new well that is drilled within the County needs to be approved via issuance of a well permit. In order to obtain a building permit, proof of an adequate water supply must be provided to the Division of Environmental Health as part of the application (County Policy #800-02).

- The **Guide for the Private Well Owner** is nice, but it does not "ensure that there is sufficient GW, if the project is to depend on GW."
- The publication **Typical Water Demands for Rural Residential Parcels** is nothing more than a three page document that shows usage in gallons per day for such things as a toilet, or gallons per day consumed by livestock. (The URL ICF provides for access to the Well Water Program does not function.)

- The proof of adequate water supply requires only 1 gallon/minute—with a larger water storage tank for these low-production wells. This is not especially "protective"; If the well goes dry, a larger storage tank is of little use.

ICF Response, page 9-241

> In addition, the following policy provides an example of how the County is tracking well use:
>
> - **General Plan Policy 5.2.3.7:** The Environmental Management Department shall compile and make available information regarding typical water demands associated with rural residential development that is dependent upon groundwater. The information shall be posted on the Department's Internet website and available in hard copy format at the Development Services Public Counter.

- "Once again the "information regarding typical water demands" is a reference to the publication **Typical Water Demands for Rural Residential Parcels**, which tells residents how many gallons per day a toilet uses, etc.

6. Data presented by ICF to characterize GW in County is from a DWR study type ICF could not identify; data could easily be "misunderstood/misinterpreted" by the public.

ICF Response, page 9-241

ICF presents Table 3.10-2—"*Average Water Table Depths in EDC*" which shows depths to GW that range from the high 20s to the low 30s (in feet). To the uninitiated, it "looks" as though GW is easily accessed, and perhaps even plentiful—an optimistic view of GW in the County.

Historical data on groundwater levels is quite limited. The water levels in water wells within the county are not routinely tested, are not reported to the County, and there is no comprehensive database on groundwater levels. However, the California Department of Water Resources (DWR) periodically tests groundwater wells for pollution or contaminants. One of the outputs of this testing includes depth to groundwater. The Center for Economic Development (CED) at Chico State University compiled well depth data in the County with consistent measurements between 1999 and 2010, and corrected for wells not measured in any particular year. Average groundwater depths from 1999 to 2010 are shown in Table 3.10-2 below. Overall, El Dorado County experienced little groundwater change during this 10-year period. Depths fluctuated between 22 and 30 feet deep, with an increasing long-term trend. Between 1999 and 2010, water table depths increased an average of 3.2 percent per year with a net change of approximately 8 feet (California State University, Chico 2011).

Table 3.10-2. Average Water Table Depths in El Dorado County (1999–2010)

Year	Average Depth to Groundwater (feet)
1999	26.39
2000	29.40
2001	33.71
2002	32.48
2003	31.36
2004	31.80
2005	30.58
2006	28.25
2007	30.89
2008	32.30
2009	31.20

Source: California State University, Chico 2011.

When asked why ICF choose the data from a single, unidentified DWR study (study *type* unknown) to characterize County GW to the exclusion of other available data—such as the study by SWRCB presented in an El Dorado County Water Agency document—and/or the County well data available via GOTNET (collected from 1990 onward that identifies well construction information, including well depth and production rates, and well-deepening information) ICF said Table 3.10-2 was intended to show:

> presented in the RDEIR. The DWR data presented in CED Report (described above) was relied upon to demonstrate that, "water levels in water wells within the county are not routinely tested, are not reported to the County, and there is no comprehensive database on groundwater levels." The

(How does Table 3.10-2 represent "water levels in water wells...are not routinely tested"?)

- While the paragraph that precedes the table *does state that water levels in wells are not routinely tested*, there is a big **HOWEVER** in there followed by language that indicates that DWR has done surveys and the data presented in Table 3.10-2 represents this sampling effort.

When asked what the purpose (goal) of the DWR study was (when questioned whether it was from observation wells in the Tahoe Basin):

- ICF couldn't identify **what DWR study the data came from (and therefore, what it really represented)**: ICF stated, "it is **believed** that the data came from..." but ICF couldn't confirm the study type...

> In a request for information, the Commenter asks where the DWR data, cited by the CED at Chico State University was derived from, the specific goal of the monitoring and the location and type of wells monitored. It is believed that the data comes from Well Completion Reports from water supply wells drilled within the County that were consistently collected by DWR between 1999 and 2010.

- The text above Table 3.10-2 says DWR "*periodically tests GW wells for pollution or contaminants. One of the outputs of this testing includes depth to GW*," not that it came from Well Completion Reports.

ICF then added:

Page 9-246:

> The CED then corrected for wells not measured in any particular year.

The Center for Economic Development is not a GW research institution (CED's stated goal is to help communities with economic development; it is funded in part by the U.S. Department of Commerce, Economic Development Administration, and the Small Business Administration). So how did CED correct "for wells not measured in any particular year"? And how does ICF know CED did this "appropriately"?

Despite the admission of not knowing the source of the data, and defending not using GW data collected by the County, ICF declares:

Page9-243:

> provide other data points necessary to preparing a GWMP. Given these limitations, the RPDEIR has done an adequate job in representing the groundwater data available for the region. The commenter

- How can ICF claim they've done an adequate job of representing the GW data available when:
  - They have ignored a large body of well data compiled by the County itself; and
  - They really don't know what DWR study the data came from/what it represents.
  - The table presents one data point per year from an undisclosed location.
  - More to the point—they haven't done an analysis of GW at all.

Page 9-246:

> The CED report provides some information on the Western El Dorado County fractured rock system, but is not the sole basis for characterizing the groundwater system and associated issues. The information is used as a means to generally characterize resources and the related issues. It is clear that the long-term monitoring necessary to better characterize the issue is not available at either a County-wide or localized level. As described in Master Response 1, the EIR for the TGPA/ZOU is a "program EIR." That is, an EIR prepared for a series of actions that can be characterized as one large project and that are related in connection with the issuance of regulations and plans. The proposed TGPA/ZOU is the project for which the EIR was prepared. Therefore, the degree of specificity in the TGPA/ZOU EIR corresponds to the degree of specificity contained in the proposed TGPA/ZOU.

- ICF says the CED was not the "sole basis for characterizing the GW system and associated issues, but the information was used to "generally characterize resources and the related issues."

- What is the other information used to characterize "the GW system and associated issues"? It is the only "data" presented.
- Long-term monitoring is not required to **develop** a GWMP. It appears the only "data" required is for the **mapping** of fractured rock aquifer locations for the purpose of ascertaining the **regulatory jurisdiction**. And, actually, this component is likely only required if the County wishes to qualify for "the award of public funds administered by DWR for the construction of GW projects or GW quality projects."

In an attempt to discredit my speculation about the source of the data in Table 3.10-2, **ICF took a total side-step**:

Page 9-242:

commenter seeks verification that the data is accurately represented in the TGPA/ZOU EIR. The commenter suggests that the DWR data that CED reports cited to represent average groundwater depths within the County, but that it was originally collected by DWR to monitor seasonal variations in groundwater basins, and that the data is most likely derived from wells within the Tahoe Basin; not from wells in areas of fractured rock aquifers. The RPDEIR's reference to mild variations in groundwater levels within the County derived from the DWR data in the CED Report does not mean to infer that there is not a growing concern regarding groundwater supplies within the County. In fact, the discussion in the RPDEIR follows the table with information from a more recent statewide DWR report (DWR 2014) to state that, despite the mild fluctuations in groundwater depths that the data indicates, that "data between 2010 and 2014 indicate that fluctuations can be greater" and that the greatest concentration of recently deepened wells is in the fractured bedrock foothill areas of Nevada, Placer, and El Dorado counties.

AND another side-step:

Page 9-242.

zoning districts upon approval of conditional use permits. In any case, given that this is a program EIR evaluating broad general plan amendments and zoning ordinance update, it is not necessary to develop a detailed study of groundwater to be able to characterize the resource, analyze the potential effects of the project, and to conclude that the impacts of future development in comparison to existing conditions will result in SU impacts on groundwater.

7. ICF clouds the issue of what constitutes a planning document: Repeatedly presents concept that the "TGPA/ZOU **EIR** is not a planning document" to turn attention away from the fact that the TGPA/ZOU **is** a planning document.

Page 9-245:

Recirc-1-96, the purpose of the TGPA/ZOU EIR is not for land use planning. Its purpose is to identify the potential impacts of proposed plans. The issue regarding the land use strategies to manage resource conditions with additional growth in the County is one of policy, not a question of EIR adequacy. The County's General Plan already sets out a future land use pattern for the County. It

ICF Response, page 9-240:

> The development of Groundwater Management Plans (GWMPs) is not within the scope of the TGPA. The EIR examines the impacts of the proposed plan amendments on existing conditions within the County; it is not in itself a planning document, nor is it expected to expand the proposed project to include an extensive (and expensive) new component.

- This paragraph mentions the TGPA, but then says the **EIR** is not a planning document. True—the EIR may not be, but the TGPA/ZOU is.
- I'm not saying the GWMP should be developed under the **EIR**, I'm saying the County/water agency needs to include this information as part of the planning process under the **TGPA/ZOU** to assist with improved land use planning. They obviously know this, but are constructing a "false argument" to deflect attention from the matter at hand. Development of a GWMP is exactly what needs to be part of the TGPA/ZOU.
- Indicates the reason for not developing a GWMP is cost, once again.

Page 9-243.

> The purpose of the TGPA/ZOU EIR is not for land use planning. Its purpose is to identify the potential impacts of proposed plans. The issue regarding the land use strategies to manage resource conditions with additional growth in the County is one of policy, not a question of EIR adequacy. For example, the question of whether the County should adopt different policies or reduce the current general plan land use allocations is one to be discussed within the County's Development Services Department.

- The purpose of the **EIR** may not be land use planning, but the purpose of the **TGPA/ZOU** is.
- Here ICF pushes the business of analysis off as "*...one of policy, not a question of EIR adequacy,*" and tells the reviewer to—in essence—"go talk to Development Services." But planning needs to be done as a part of the the TGPA/ZOU, and land use planning needs to be discussed/revealed under the TGPA/ZOU EIR.

8. ICF indicates relevant discussions are "outside the scope of the EIR, and/or directs reviewer to get information elsewhere.

I made a request for information based on the following policy (this is the policy under which the GOTNET well data has been collected, and in which the County says they'll use the data for land use planning).

> **Policy 5.2.3.6:** *"The County shall assess and analyze the well data gained since the permit process started in 1990. Such data should be used to identify areas of likely groundwater supply limitations. At the completion of this analysis period,* ***the County should determine if the General Plan uses within the areas of water supply limitation are compatible with identifiable supply limitations and modify the General Plan uses, if necessary.***" O-Recirc

Here is ICF's restatement of my request and their response:

Page 9-246:

O-Recirc-1-104

In a request for information, the Commenter asks that an analysis be conducted, and summarized in the EIR, based on Policy 5.2.3.6, which specifies an assessment of well data compiled since the permit process started in 1990 in order to identify areas of likely groundwater supply limitations. At the completion of this analysis period, the County should determine if the General Plan uses within the areas of water supply limitation are compatible with identifiable supply limitations and modify the General Plan uses, if necessary.

Please see Response O- Recirc-1-102. This has not been done and no such information is available. It's not reasonable or feasible given the complexity of the fractured rock aquifer systems. Please also see Master Response 1 regarding specificity of Program EIR and Master Response 6 regarding groundwater, and Response to O-Recirc-1-40. Groundwater availability at any given site varies depending upon the underlying geology of that site. Therefore, the answer to this question is unknown and would require an extensive study of groundwater that is beyond the reasonable scope of the TGPA/ZOU EIR.

- "**This has not been done**" **must refer to the land-use planning analysis**; the gathering of well data has certainly been done and now resides in the Envision System and can be accessed through the County surveyor's GOTNET Web site.
- ICF indicates Policy 5.2.3.6 is "*not reasonable or feasible…*" But it is not only possible—it is necessary.

Page 9-248.

O-Recirc-1-110

In a request for information, the Commenter asks that areas where septic tank percolation rates are ≤ 1 minute per inch (mpi), and ≥ 80 mpi, which soils make septic systems less effective and soil types by parcel number within the County. As described above in the Response to O-Recirc-1-108, this is a level of detail that not necessary at the Program EIR level. Soil types within the County can be found on the County of El Dorado's GOTNET website, and the Natural Resources Conservation Service (NRCS) website on soils.

- ICF indicates analysis is "not necessary at the Program EIR level."
- ICF directs the reviewer to a Web site to get their own information on "soil types."

When asked for information about septic tank percolation rates for the different planning areas:

Page 9-249.

O-Recirc-1-116

In a request for information, the Commenter asks an analysis of the potential for septic tank success/failure for the different planning areas of the County be provided in the EIR. While this information may be useful for site-specific development projects, it is not pertinent to the Program level analysis in the EIR, as described in Master Response 1 and Response to O-Recirc-1-102. This type of information is not necessary to analyze the broad impact of new development and changes in land use zones. Determining "areas where wells are susceptible to contamination" requires site-specific analyses that are beyond the scope of a Program EIR.

- ICF indicates the analysis of septic failure for different planning areas is not pertinent to Program level analysis in the **EIR**. It is a pertinent analysis relative to the **TGPA/ZOU** project.
- The analysis **is** necessary to analyze the impact of new development.
- ICF repeats analysis is "*...beyond the scope of a Program EIR.*"

Page 9-250.

O-Recirc-1-117

In a request for information, the Commenter asks that the parcels to be included in agricultural designations be identified, which ones will be served by groundwater, and those that are in water service district boundaries, as well as the locations of wells now in the areas, their depth and production rates (gpm), and any known history of well deepening, wells gone dry, and aquifer overdraft. As described above in the Response to O-Recirc-1-108, this is a level of detail that not necessary at the Program EIR level. The project is not proposing any site-specific uses, nor will it be used for purposes of approving site-specific uses. For purposes of identifying the impact and reasonably informing decision-makers of its significance, a program level analysis is sufficient.

- ICF indicates the analysis of surface and GW availability in agricultural designations is "detail not necessary at the Program **EIR** level." It is necessary planning information, is part of full disclosure, and is necessary for the TGPA to be an effective project.
- ICF indicates "program level analysis is sufficient."
- This approach pushes planning off to the future—or maybe never. "*The project is not proposing any site-specific uses, nor will it be used for...approving site-specific uses.*"

Page 9-250.

O-Recirc-1-118

In a request for information, the Commenter asks site-specific aquifer recharge areas be identified. As described above in the Response to O-Recirc-1-108, this is a level of detail that not necessary at the Program EIR level. Aquifer recharge areas are not proposed to be designated as part of the TGPA/ZOU.

- Once again, ICF indicates the request for information is a level of detail that is not necessary at the Program EIR level.

Page 9-245.

in Response to O-Recirc-1-95. Based on the Significant and Unavoidable conclusion, the County Board of Supervisors can choose not to approve the proposed amendments in order to reduce the impacts identified. But, even so they cannot avoid the impact as planned because it is largely the result of the current General Plan's allocation of future development potential. As is the case, County will make a statement of overriding considerations for the Project.

- This comment appears to make all planning the responsibility of the Board of Supervisors (whose hands are tied by the 2004 General Plan).

9. Miscellaneous issues.

Page 8-31; Master Comment 6, section 8.7.3 Water Quality

> There is no evidence that agricultural practices have resulted in adverse effects to surface waters from either sediment or chemicals being carried from agricultural lands. As required under Section 303(d) of the Federal Clean Water Act, the State Water Resources Control Board (SWRCB) and the

- It is well known—and well documented—that chemicals can be/are carried from agricultural fields to surface waters.

Page 9-245:

> Regarding the comment repudiating the conclusion of No Impact in the Impact Discussion, (RDEIR, page 2-24) The significance of the Project on groundwater resources varies with the setting. In this case, the No Impact conclusion refers only to the areas that do not rely on groundwater for their supplies. The project would have no impact on groundwater in areas served by EID, GDPUD, GFCSD because they primarily rely on surface water supplies, and therefore future projects would not substantially deplete groundwater supplies.

- This comment—at a minimum—**reflects a poor understanding of the hydrologic cycle.** Even if water districts are entirely dependent on surface water supplies to serve their customers, the following applies, *"...one of the primary concerns related to the use of GW as a drinking water source is the effect GW pumping has on streamflow. (almost all groundwater used for...drinking water would become streamflow were it not pumped)."* (See below.)

> *Groundwater and Streamflow Volume*
> Although the land surface is a convenient division for categorizing surface and groundwater resources, it is an arbitrary one. Surface and groundwater are linked in the hydrologic cycle; groundwater may be recharged by spring runoff in streams; later in the year the base flow of a stream may be provided by groundwater.[69] In fact, one of the primary concerns related to the use of groundwater as a drinking water source is the effect groundwater pumping has on streamflow. (Almost all groundwater used for irrigation and drinking water would become streamflow were it not pumped.)[70]

Source: C. Langley Appendix A, Water Quality, page 3.0-48. (See citations in dEIR text.)

Page 9-241

> The General Plan's policies 5.3.3.1 through 5.3.3.7 provide for overview of individual development proposals to ensure that there is sufficient groundwater, if the project is to depend on groundwater. The following policy is an example of this.

- These are the wrong policy numbers—they mean 5.2.3.1 and 5.2.3.7. **This is confusing to reviewers.**

The following spreadsheets include evaluations of responses to comments submitted for the draft EIR (dEIR) and the recirculated draft EIR (RDEIR)

A. dEIR: comments/responses # 40 - 113

B. RDEIR: comments/responses # 95 - 119

A

Response to Comments										
Comment Number	Disposition of issue Not Described		No Reason why Suggestion Rejected		Response not Reasoned		Conclusory response lacks factual Support		Response lacks detail of Comment	Explain Problem with Response
40	X								X	Rather than provide answers to specific questions about GW sustainability, ICF concludes that "the analysis requested...is related to policy-making, not environmental analysis," and the BOS will determine project approvals.
41	X								X	In reference to land use planning/septic tank usage in areas of fractured rock aquifers, ICF says existing (and **future**) regulations will protect GW from contamination (but also TGPA is not proposing site-specific development projects). Problem with this is, it's supposed to be a land use planning document. Zoning designations identify where development may occur--so I'm asking if these areas have been evaluated for septic "performance" relative to contamination problems--no answer is provided.
42	X								X	Referred to Master Response 6 which only speaks in generalities, not specifics about the the conveyance of contaminants to surface water and nothing about "contingency plans."
44					X					ICF declines to identify aquifer recharge areas that may be of importance (especially in the eastern portion of the County). Says "*the County has chosen not to identify recharge areas*," and "*the identification of these areas is not necessary to determine the potential impacts of the TGPA/ZOU project*."
45	X									ICF combined two unrealted questions (dam inundation zones/water supply & quality) **and did not respond to the water supply/quality question.**
46							X			Despite all the assurances that residents' water supply is protected via the County's Storm Water Quality Ordinance and NPDES requirements, it has been documented that the County has failed to enforce related requirements (see Mt. Democrat article: Grand Jury Report: County Slammed for not Enforcing Ordiance; Chris Daley; July 7, 2014). This article speaks specifically to the non-enforcement of the "Grading, Erosion and Sediment Control Ordianance."
47	X				X		X			The reviewer is referred to **Master Responses 5 & 6:** Master Response 5 discusses constraints on development under the TGPA/ZOU--but this discussion actually reinforces the reviewer's comment about development NOT being constrained under policies 5.2.1.3 and 5.3.1.1. Also, the discussion of Policy 5.2.1.3 is contradicted in **Master Response 6** that says high density development in Community Regions **SHALL** connect to a public water system. (The policy is being revised to "may be required to connect to public water system if reasonably available."
48	X				X		X			When asked how much land specific policies impact, ICF replied "the market will drive the location of future development." But in terms of land use planning, one could

Response to Comments											
Comment Number	Disposition of issue Not Described		No Reason why Suggestion Rejected		Response not Reasoned		Conclusory response lacks factual Support		Response lacks detail of Comment		Explain Problem with Response
											reasonably expect an evaluation of how much land is outside of public water/sewer areas and the zoning of that land to determine potential impact to underserved areas.
49	X				X						ICF avoids an issue by saying "*Neither the GP nor zoning establish a vested right to develop any site*." But my point was the TGPA/ZOU is now allowing commercial, industrial, home occupation (multiple commercial possibilities), tourist serving (undefined) in areas without water and wastewater services--and that these activities will impact surface and GW quality.
50	X				X						ICF says I'm correct--but they misinterpret/misrepresent my comment. My point was the TGPA/ZOU is enabling intensive development in underserved areas: GW is anticipated to serve commercial/industrial uses in rural areas. In reply, ICF directs me to Master Response 5, which as I indicated earlier, actually confirms that development will not be "constrained" under the revised TGPA/ZOU policies 5.2.1.3 and 5.3.1.1.
51	X								X		In response to questions about contamination of GW, aquifer overdraft, the County's Post Construction Runoff Control Procedures, ripiarian and ag protections, ICF responded in part:"*the comment relates to the commenter's opinion on the advisability of one of more of the policies or regulations being proposed as part of the TGPA/ZOU project,*" "*The comment is not on a significant environmental point, and therefore no response is necessary*." My questions remain unanswered.
54	X								X		I asked for terminology definition for "density" and "intensity" as it related to infill properties and was told by ICF: "**These comments relate to the commenter's opinion on the advisability of one of more of the policies or regulations being proposed as part of the TGPA/ZOU project. They do not address the adequacy of the DEIR or other environmentally related topic.**" And, "**The comment is not on a significant environmental point, and therefore no response is necessary.**" My question remains unanswered; I disagree that the interpretation of these terms by decision makers won't have an impact on project implementation / design / impact.
55-58	X								X		ICF provided the same response as in **Comment 54** (to several specific questions about terminology, such as "formbased codes," etc.) My questions remain unanswered.
59	X										ICF's responds with Master Response 12 that descibes the CEQA process for significant and Unavoidable impacts/overriding considerations. But my point is the County is not adopting--and not considering/evaluating--all reasonable mitigation (for instance, the establishment of

Response to Comments											
Comment Number	**Disposition of issue Not Described**		No Reason why Suggestion Rejected		**Response not Reasoned**		Conclusory response lacks factual Support		**Response lacks detail of Comment**		**Explain Problem with Response**
											a GWMP and implementing ordinance.)
60	X								X		In response to several questions (9) about infill criteria/definitions/etc., ICF provides the same response as in **Comment 54**. My questions reamain unanswered.
61	X								X		In response to comments about development on slopes of ≥30% slopes, ICF provided the same response as **Comment 54**. My questions remain unanswered.
62 - 63	X								X		When asked about the statement *"the number, size and habitat value of sites to which the proposed amaendmaent might be applied cannot be known..."* and pointing out that this could be known via topography maps of land ≥30% and the zoning designations of such land, ICF provided the **Comment 54** response. My questions remain unanswered.
64 - 69	X								X		In response to multiple questions (11+) about development on ≥30% slopes (including designation of its impact as "significant & unavoidable"), ICF provided the **Comment 54** response. My questions remain unanswered.
70	X								X		In response to multiple questions (8) about home occupancy, ICF provided the **Comment 54** response. My questions remain unanswered.
71	X								X		In response to multiple questions about the addition of 17,241 acres of land to Ag Districts (and the impact of new allowable uses on ag land), ICF provided the **Comment 54** response. My questions remain unanswered.
72	X								X		In response to a question about the removal of 137 acres of ag land from ag production, ICF provided the **Comment 54** response. My questions remain unanswered.
73	X								X		ICF ignored multiple questions about the impact of ag operations that are exempt from mitigations imposed on development in other zoning categories, the elimination of special use permits for "visitor serving uses," and about the efficacy of BMPs (as the County implements them) by indicating my comments required responses beyond the "specificity of environmental review...required in a Program EIR." This isn't full disclosure; it doesn't help me (or decision makers) understand the scale of impact.
74	X				X				X		I do not see a relationship between the comments and responses provided by ICF.
75	X										
					X				X		I do not see a relationship between the comments and responses provided by ICF.
76	X				X				X		ICF refers to Master Response 6, but my questions are broader than the topic covered in the Master Response, so many questions remain unanswered.
77	X				X				X		I am referred to the discussion under Master

Response to Comments											
Comment Number	Disposition of issue Not Described		No Reason why Suggestion Rejected		Response not Reasoned		Conclusory response lacks factual Support		Response lacks detail of Comment		Explain Problem with Response
											Response 11: Riparian Setbacks, but my comment is that these setbacks are not based in science. I present a study, but this is ignored; no comment is made about the basis of the proposed setbacks.
78 - 79	X								X		I request information that is not provided in the ICF response in Master Response 11; ICF says response is beyond specificity required in a Program EIR.
81 - 85	X								X		Referred to Master Response 11 which does not answer specific questions; told (re: Comment 83) that response is not a significant environmental point and no response is necessary.
87 - 89							X				While ICF has responded to these comments, some of the responses are in direct contradiction to language lifted from the dEIR (regarding open space).
92 - 106					X		X				For the majority of the discussion on Appendix A: Water Quality that I attached to my comments, ICF points to **Master Response 6**: Groundwater Supply and Water Quality. However, the point I was making was that there are GW supply/quality problems in the County that the TGPA/ZOU will exacerbate to a tremendous degree, and this is not solved by policies described in Master Response 6.
107 - 113	X		X						X		I am referred to the discussion under Master Response 11: Riparian Setbacks, but my comment is that these setbacks are not based in science. I present a study, but this is ignored; no comment is made about the basis of the proposed setbacks.

B

				Response to Comments			
Comment Number	Disposition of issue Not Described	No Reason why Suggestion Rejected	Response not Reasoned	Conclusory response lacks factual Support	Response lacks detail of Comment	Explain Problem with Response
95-97			X	X		Could use GW data to develop GWMP/land use planning tool (mitigation element), but refuse based on misrepresentation of GWMP requirements. (And say not within scope of TGPA.)
98			X	X		Same as above.
99	X		X	X		Do not respond to issue of GW use for highest density development (Community Regions/Rural Centers).
100			X	X		Say purpose of TGPA/ZOU **EIR** is not land use planning; say 2004 GP already sets out land use pattern, so now it's up to BOS to "manage" land development.
101			X	X		In response to my charge of "no planning, no disclosure" ('projects cannot be known at this time'), says EIR is not a planning document; land use planning is an issue of policy, not EIR adequacy. Says EIR meets full public disclosure.
102			X	X		Could not identify where the DWR data in Table 3.10-2 came from (type of study, goal of monitoring, location & type of wells).
103			X	X		Says request for evauaition of available well information (relative to land use planning) is beyond scope of EIR because information about planned projects is inadequate (no locations, no design plans, intensity under CUPs not known) and GW data is not comprehensive.
104			X	X		Says analysis under Policy 5.2.3.6 is "not reasonable or feasible;" (basically indicates GP policy is invalid). Also says answer is "beyond the scope of the TGPA/ZOU EIR."
105			X	X		Could use GW data to develop GWMP/land use planning tool (mitigation element), but refuse based on misrepresentation of GWMP requirements, and say "budgetary constraints" are the reason County "chooses" not to do GWMP.
106			X	X		Says request to establish a ground water ordinance (aimed at land use planning) is not ***mandated***--the County isn't ***required*** to do so, and it is beyond the scope of the EIR.
107	X		X	X	X	Doesn't answer questions about mitigation efficacy of Municode Well Standards/County's proposed well standards: says "...outside the scope of the Project and not needed to analyze GW at a Program EIR level."
108	X					I'm told to look elsewhere for requested information (maps of existing water service conveyance lines); told this is a level of detail not necessary at the Program EIR level.
109	X					I'm told to look elsewhere for requested information (maps of existing sewer conveyance lines); told this is a level of detail not necessary at the Program EIR level.
110	X					I'm told to look elsewhere for requested

Response to Comments											
Comment Number	Disposition of issue Not Described		No Reason why Suggestion Rejected		Response not Reasoned		Conclusory response lacks factual Support		Response lacks detail of Comment		Explain Problem with Response
											information (areas where septic tank percolation rates are extremely high or low); told this is a level of detail not necessary at the Program EIR level.
111					X						Avoided issue. Says County doesn't have to comply with OWTS for 60 months past effective date of SWRCB policy (May, 2013). SWRCB policy says no septic systems on any part of a property that exceeds 25% (County policy says septic allowed on slopes <30%, but EIR says "reasonable use" clause
112					X		X				Says septic placement will be subject to SWRCB regulations. But then says (under reply to 113), "reasonable use" clause applies--and would allow septic placement on slopes ≥30%.
113					X		X				Says septic placement will be subject to SWRCB regulations. But then says "reasonable use" clause applies--and would allow septic placement on slopes ≥30%.
114					X		X				Say amount of sand, gravel and clay between well and septic filter out contaminants; but County has fractured rock aquifers, not alluvial basins.
115	X										Question not answered. (There is a reply, but it doesn't answer the question).
116	X								X		Says information requested on septic tank failure in planning areas is "not pertinent to the Program level analysis in the EIR."
117	X								X		Says information requested on ag parcel inclusion is "a level of detail that is not necessary at the Program EIR level."
118	X								X		Says information requested on aquifers is a level of detail "not necessary at the Program EIR level."
119											Okay--I requested they answer questions submitted under the dEIR.

(Distributed at hearing by Bob Leidigh)

PC 8/27/15
#2
6 pages

El Dorado County Planning Commission
c/o County of El Dorado Community Development Agency
Development Services Division –Planning Services
2850 Fairlane Court
Placerville, California 95667

August 20, 2015

Re: Targeted General Plan Amendment-Zoning Ordinance Update – Hearing August 27, 2015.

Dear Commissioners,

We write to bring to your attention a necessary correction to the maps that you are considering as part of the Zoning Ordinance Update (ZOU) project that is before you on August 27, 2015. We submit this written comment pursuant to the published notice for your hearing. We are neighbors of the group of parcels at issue. Some of us own contiguous property, others are in close proximity. Our entire area is rural in nature; we want to "Keep it Rural."

The parcels at issue are APN #'s 105-030-16; 105-030-17; 105-030-19; and 105-030-20. Together they comprise nearly 200 acres of land, designated in the 2004 General Plan as Rural Residential (see colored map labeled "General Plan" attached as "Exhibit A") Current zoning is RE-10. Most of our properties are likewise currently zoned RE-10. The same is true for other neighboring properties. (See colored map labeled "Current Zoning" attached as "Exhibit B.")

Under the (ZOU) maps before you, all these neighboring properties would be reclassified to RL-10. However, the parcels at issue are shown as being rezoned to RF-L (Recreational Facility – Limited), a completely different and inconsistent category. (See colored map labeled "Proposed Zoning" attached as "Exhibit C.")

We have repeatedly been informed by planning staff that this anomaly is a GIS computer-generated error that needs to be corrected. To accomplish this, planning staff has developed an Errata Sheet that includes the parcels at issue along with others throughout the county for which similar errors have been discovered. (The Errata Sheet is in your meeting packet as Item 16M, "Exhibit J." The specific corrections are found on page 10 of the Errata Sheet, a copy of which is attached for your convenience.)

In particular, Shawna Purvines of the planning staff has stated that the white OS land use designation that appears on the map attached as "Exhibit A" is the only portion of the four lots that should be so zoned; whereas the remainder of land in the four lots should be RL-10, which would be consistent with current zoning and with the surrounding properties. (See attached "Exhibit D.") That would make the zoning consistent with the Rural Residential nature of the area as designated by the General Plan.

We wish to ensure that the correction is formally noted as this matter moves forward to the Board of Supervisors. In your recommendations to the Board, we ask that you note the need for this correction, so that it does not get overlooked.

Thank you.

/s/ Donna Sauber
Donna & Jim Sauber
APN 102-130-01

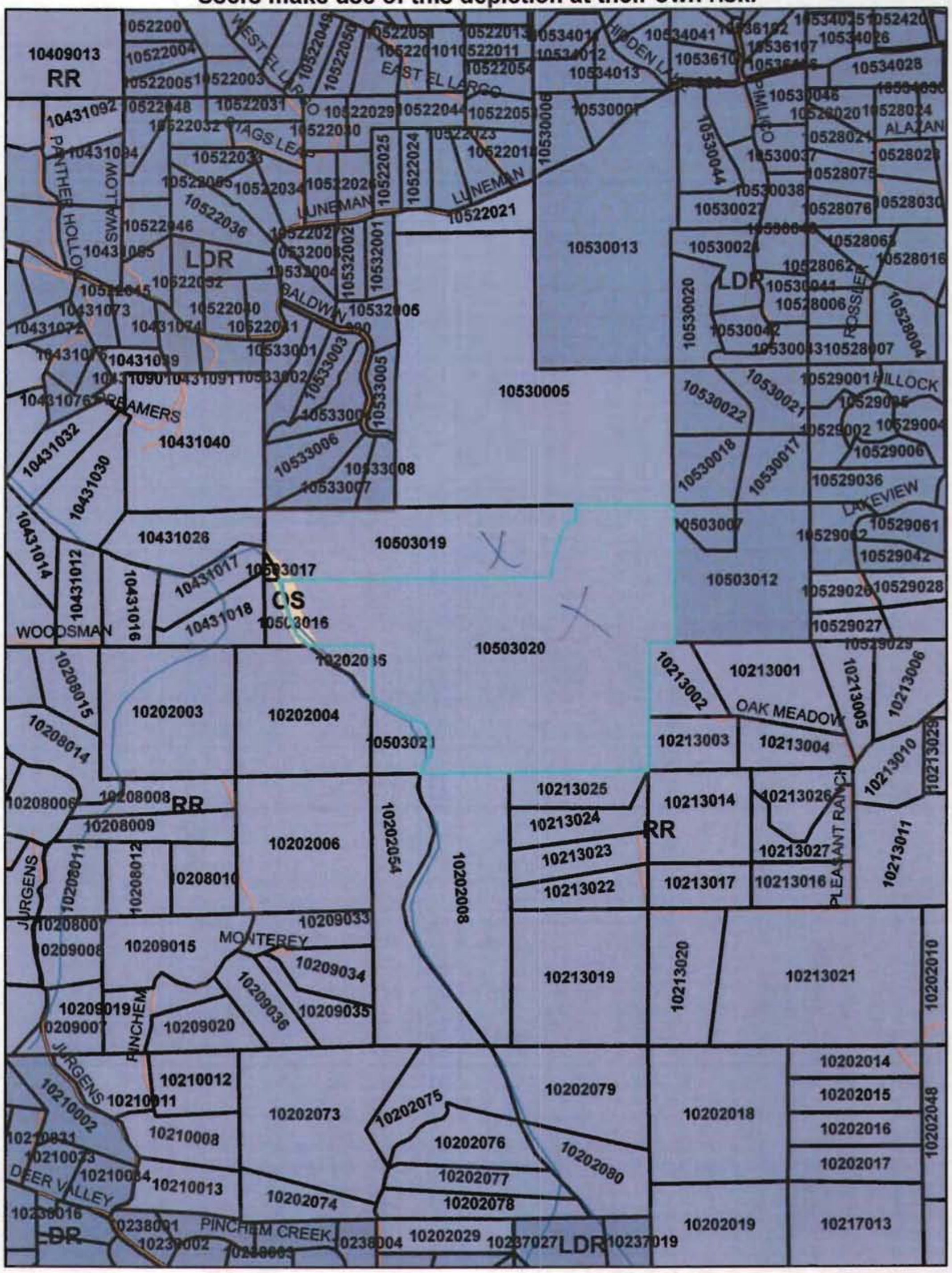
/s/ Barbara J. Leidigh
Bob & Barbara Leidigh.
APN 105-290-26

/s/
Caren & Boris Trgovcich.
APN 102-130-03

Robert M. Shuman MD
/s/ Marcia B. Shuman
Dr. Robert & Marcia Shuman.
APN 105-030-07

/s/ Christine Leigh-Taylor
Rev. Christine Leigh-Taylor & David Weber
APN 102-130-02

11-0356 Public Comment
PC Rcvd 08-26-15 to 08-27-15

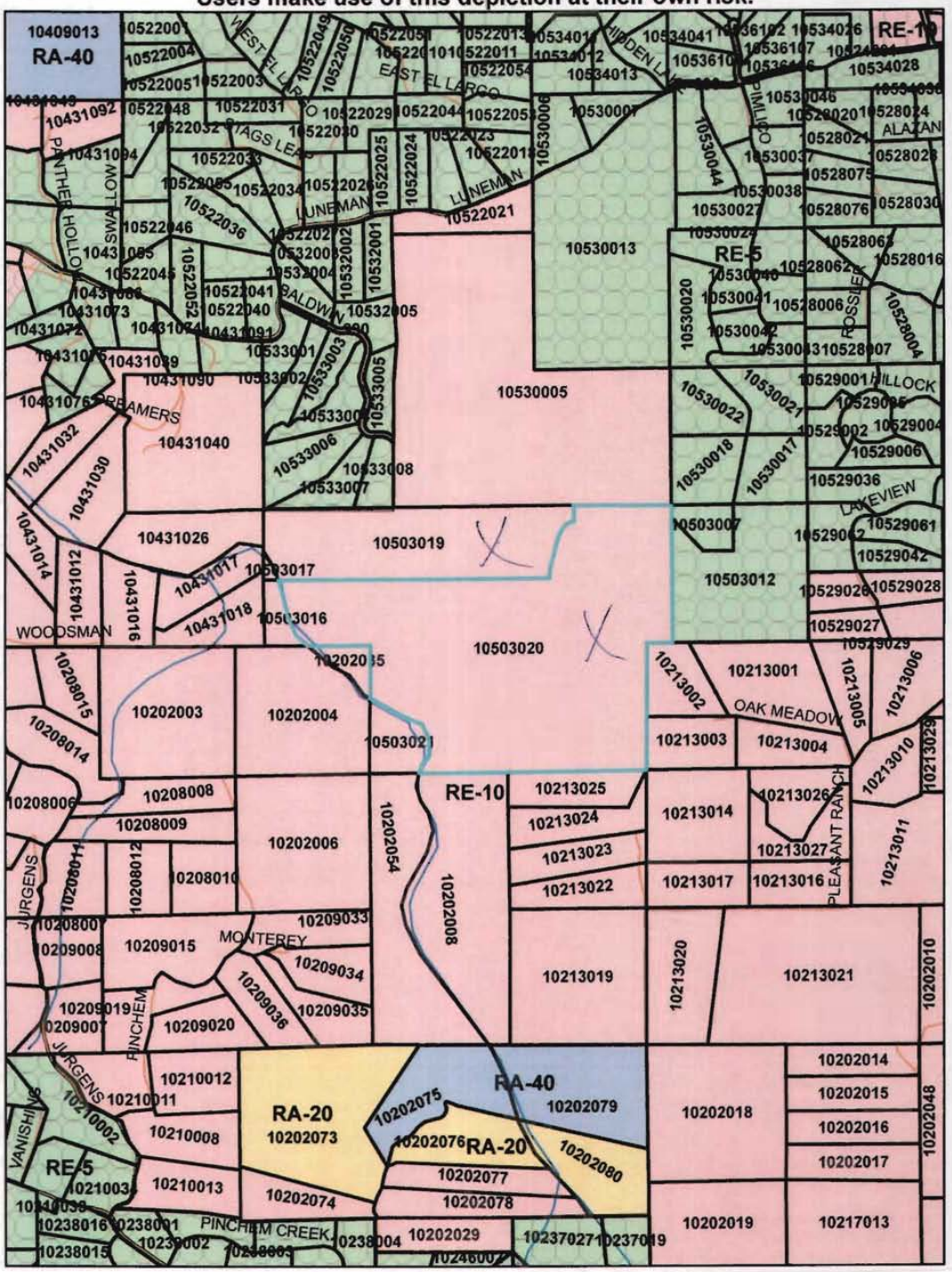


General Plan

X

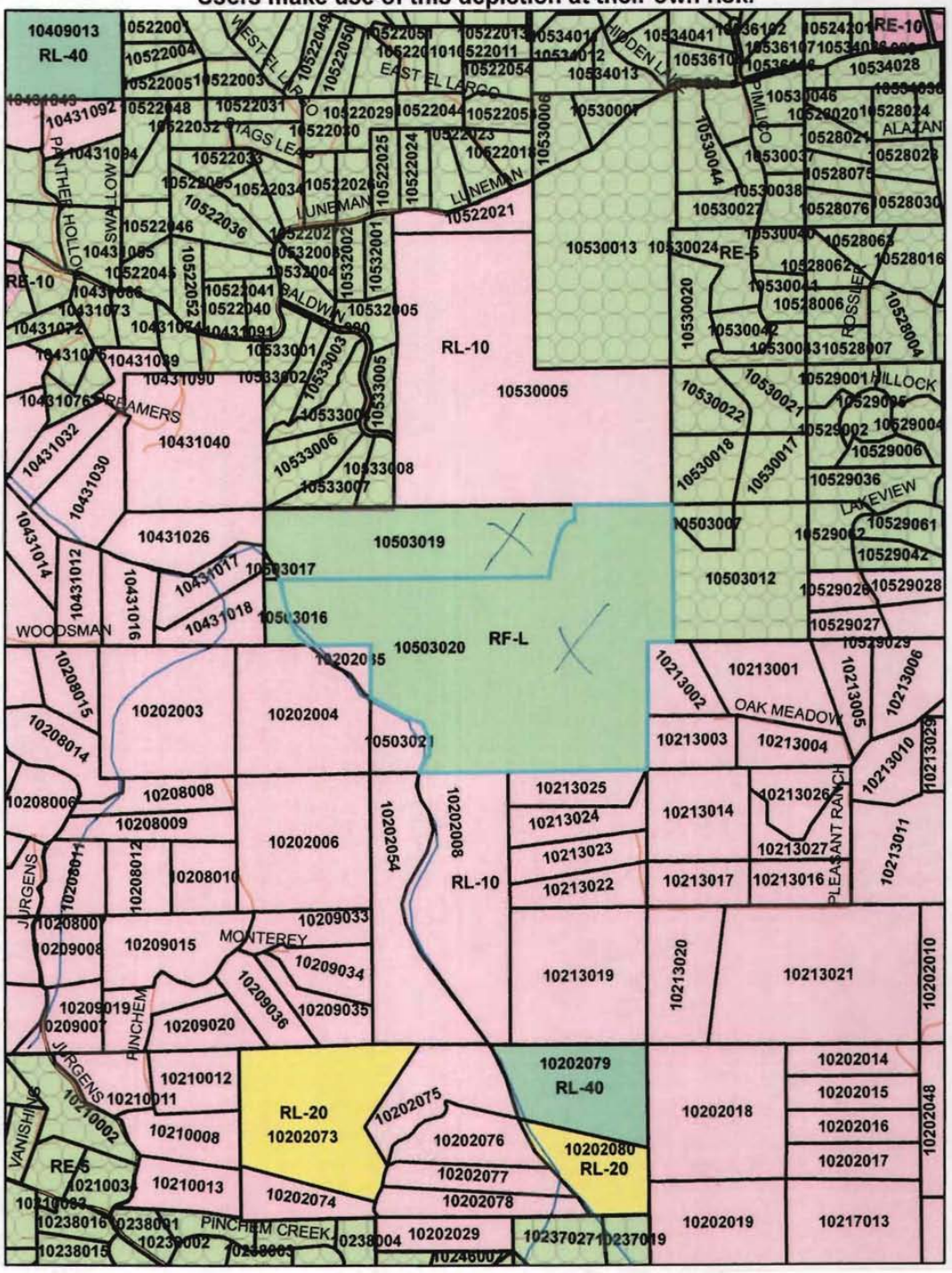
X

Exhibit A



Current Zoning

Exhibit B



Proposed Zoning

Exhibit C

From: shawna.purvines@edcgov.us
To: Knolls50@aol.com
Sent: 8/18/2015 7:03:16 P.M. Pacific Daylight Time
Subj: Re: Courtesy Copy: El Dorado County Planning Commission Agenda Update

Hi Bob,

The narrow sliver designated Open Space actually crosses over 4 separate parcels. All 4 of the parcels have dual land use designation including both Open Space (OS) and Rural Residential (RR). When the software applied the updated zone it only pick up the Open Space and spread the zone Recreation Facilities (RF) across the entire area of all 4 parcels. When the correction is complete the map will reflect/mirror the General Plan land use map with only the sliver being designated Open Space and the remainder of the area on all 4 parcels being zoned RL-10 consistent with the existing RE-10 zone.

You are correct, in that the Open space area of each of the parcels only runs just along the creek. It is very hard to see that the Open Space actually crosses all 4 parcels on the map because the area of Open Space is very small.

Hope this helps,
Shawna

Exhibit D

ERRATA SHEET

August 27, 2015

For the following Documents and Exhibits:

1) Proposed TGPA Revised 3/24/14, 2) ZOU Public Draft dated 3/24/14 (see Exhibit K), 3) Proposed Zoning Mapping Corrections after 3/24/14 (post release of the Draft EIR)

Parcel ID	Current Zone	Proposed Zone	Current LUD	Changed To (LUD/Zone):	Reason for Revision
06104231	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
06104235	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
06104236	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
06104237	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
06104277	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
08502008	U	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
08502015	U	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
08720028	RA-40	RL-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
09303210	RA-40	PA-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
09502128	RA-40	PA-10	RR	RL-40	Revise zone designation for consistency with mapping criteria
10510008	RA-40	PA-20	RR	LA-40	Revise zone designation for consistency with mapping criteria
10510011	AP	PA-20	RR	LA-20	Revise zone designation for consistency with mapping criteria
09411011	RE-5	CC	C & RR	CC & RL-10	Revise zone designation for consistency with RR and C LUD's
10503016	RE-10	RF-L	OS/RR	OS & RL-10	Revise zone designation for consistency with RR and OS LUD
10503017	RE-10	RF-L	OS/RR	OS & RL-10	Revise zone designation for consistency with RR and OS LUD
10503019	RE-10	RF-L	OS/RR	OS & RL-10	Revise zone designation for consistency with RR and OS LUD
10503020	RE-10	RF-L	OS/RR	OS & RL-10	Revise zone designation for consistency with RR and OS LUD
10103032	RE-5	RE-5 & RA-40	MDR & NR	RE-5 & FR-160	Revise zone designation to reflect multiple LUD designation
05146159	R2/RE-5	R3A/RE-5	MFR/MDR	RM/RE-5	Revise zone designation to reflect multiple LUD designation
06324012	A/C	CC	LDR/C	RE-5 and CC	Revise zone designation to reflect multiple LUDs. C LUD is in the Quintette RC, LDR is outside of RC
09407013	C, PA & RE-5	PA-20 & RL-10	C, AL & MDR	CC, PA-20 and RL-10	Revise zone designation to reflect three LUDs on parcel

EXHIBIT J

(Distributed at hearing by Tom Infusino)

Clerk
PC 8/27/15
#2
2 pages

Comments to the El Dorado County Planning Commission Regarding the TGPA/ZOU
On August 27, 2015
By Thomas P. Infusino, on Behalf of Rural Communities United

Tom Infusino; Rural Communities United

I have practiced CEQA and land use law for over 25 years. I was co-counsel in the litigation that set aside El Dorado County's 1995 Cinnabar Project, and El Dorado County's 1996 General Plan. I do not return here often. I return today to try to stop the County before it makes yet another major land use mistake.

As you have heard from others today, the County has inadequately responded to the heartfelt comments of their concerned citizens on the EIR. These inadequate responses, in turn, reflect other substantive violations of CEQA. They reflect errors in the executive summary, deficits in the project description, inadequate impact analyses, mitigation measure mistakes, un-analyzed alternatives, and uncalculated cumulative Impacts. Furthermore, many aspects of the statement of overriding considerations and the draft findings of fact do not provide the logical pathway between substantial evidence in the record as a whole and the County's ultimate conclusion.

In addition, these flawed responses to comments and flawed findings of fact also suggest potential violations of land use law. They indicate that there is a lack of consistency between the elements of the general plan. They suggest that the Zoning Ordinance Update fails to reflect a reasonable accommodation of competing regional interests.

Finally, at this point, we can only wonder about the other possible litigation that may follow as people trying to exercise their perceived rights under the relaxed zoning code clash with homeowners armed with the specific plans, development agreements and CC&Rs they relied upon when purchasing their property.

For these reasons, we strongly encourage the Planning Commission to take a step back today. Recommend that the Board of Supervisors reconsider feasible mitigation measures proposed by the public. Better yet, recommend that the Board of Supervisors look to more traditional and less harmful alternative methods of promoting economic development. Recommend that the Board of Supervisors direct the Planning Department to actually minimize the zoning changes needed to implement the 2004 General Plan; rather than turning the system inside out across 37,000 parcels county-wide. Recommend that the County investigate the potential for litigation by private residents against new land uses so contrary to the terms under which they purchased their property.

Unfortunately, I get only a few minutes to try to convince you today. However, pursuant to Government Code Section 65354.5, any interested party may pay the fee and file a request for a full hearing of their general plan amendment objections before the Board of Supervisors. If you recommend approval of the TGPA/ZOU today, I guarantee that Rural Communities United will file such a hearing request. Our objections will be heard.

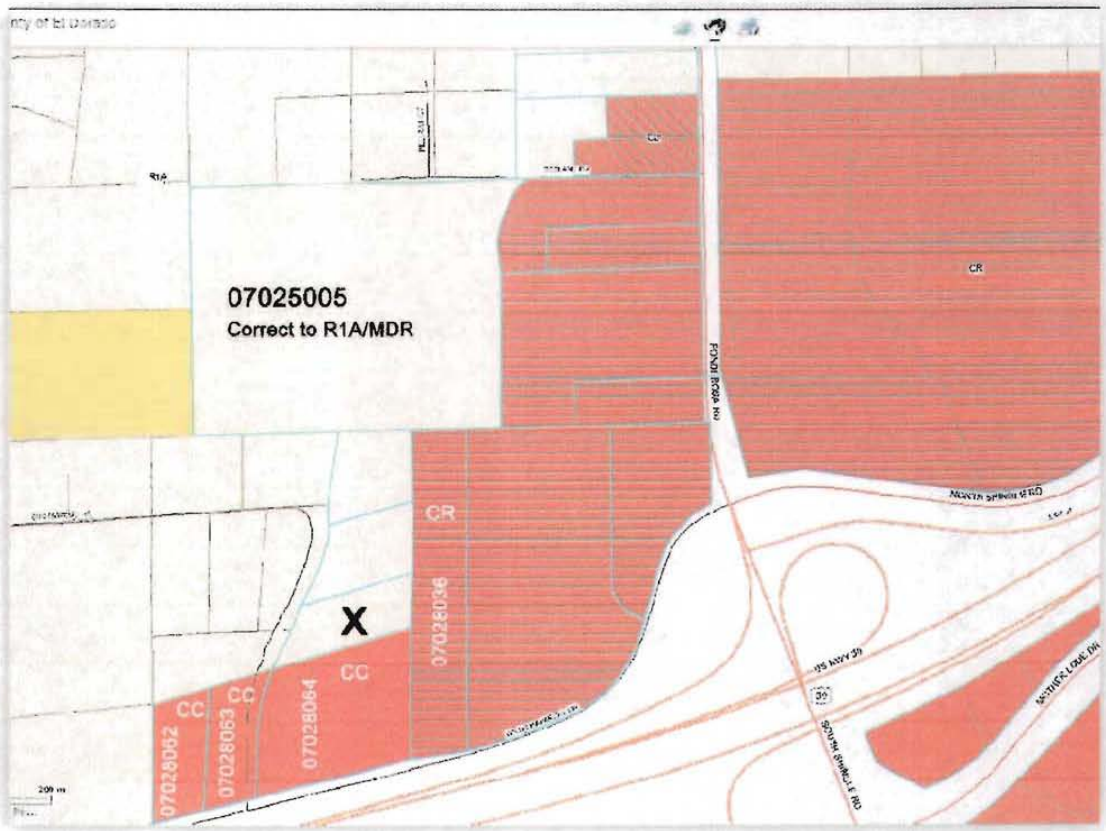
Thank you.

(Distributed at hearing by Lori Parlin)

PC 8/27/15 #2 3 pages

8-27-15 Planning Commission, Comment on TGPA/ZOU, submitted by Lori Parlin

The map below shows my neighborhood. It shows the PROPOSED changes in zoning. I testified at a 2012 BOS meeting that I thought adding the new Commercial zoning districts was a good idea so that people would know more about the parcels in their area. What I didn't know was that this process was going to be used to set the use of the parcels in my own neighborhood without my input! And I seriously doubt that any of the other residents in this area have any idea that the parcels are being set to higher uses. With the current system, we would get notified about a specific project and attend hearings to determine or mitigate a project. But with this process, the public is not being made aware of what is happening.



Based on the definitions of the NEW proposed Commercial Zones, I request that the parcels listed below be changed to Commercial Zones that are compatible with adjacent residential parcels as follows:

07028062 and 07028063 - CPO (Commercial, Professional Office) - Reasoning: These parcels currently have a Planned Development for an office complex and CPO is compatible with residential uses

07028064 - CL (Commercial Light) - Reasoning: This parcel currently has Special Use Permit that is allowing a use that is incompatible with residential neighborhoods. When Kniesel's

outgrows this facility and moves, having the CL zoning will ensure that a compatible business moves in.

07028036 - CL (Commercial Light) - Reasoning: This parcel is currently occupied with a public storage facility, which is a low impact commercial use and has been compatible with the residential neighborhood. If this business were ever to leave, the neighborhood would benefit from compatibility of a new business in the Commercial Light category.

The fact that these proposed zoning changes were done without consulting or notifying the adjacent property owners, nor the neighborhood at large, makes this entire process suspect and gives the impression of back door deals. How many other instances of these unnotified changes are in the TGPZ/ZOU? Staff has not done their due diligence to make the public fully aware of the impacts of this project and the FEIR should be rejected.

Proposed Commercial Zones

1. **Commercial, Professional Office (CPO).** The CPO, Professional Office Commercial Zone is intended to regulate the development of land suitable for professional, administrative, and business offices and offices mixed with low to high intensity residential uses. It is intended that this zone be utilized as a transition between residential areas and higher intensity commercial uses by creating an environment which is compatible with surrounding residential uses while providing adequate economic incentive for development of such office space. Retail sales that are incidental to the primary office uses in this zone, are allowed subject to the provisions of the Ordinance.

2. **Commercial, Limited (CL).** The CL, Limited Commercial Zone, designates areas suitable for lower intensity retail sales, office and service needs of the surrounding area while minimizing conflicts with the residential uses and outside traffic into the area. Mixed use development compatible with surrounding uses would also be appropriate.

3. **Commercial, Main Street (CM)**. The CM, Main Street Commercial Zone, allows a wide range of pedestrian-oriented retail, office, and service uses, and mixed use development comprised of commercial and residential uses. Flexible development standards are applied to facilitate preservation of historic structures and to encourage new development compatible with the identity of each unique community. This zone is generally appropriate for historic downtown areas or town centers.

4. **Commercial, Community (CC)**. The CC, Community Commercial Zone, provides for the retail sales, office, and service needs of the residents residing

within the surrounding community and accommodates the commercial and service needs of visitors to the County. Mixed use development compatible with General Plan densities is appropriate in this zone.

5. **Commercial, Regional (CR)**. The CR, Regional Commercial Zone, provides for large-scale retail services for a regional trade area. The CR zone applies to regional shopping centers that serve a market beyond the community and are located along arterials and at major intersections that provide convenient automobile access. Residential uses are generally inappropriate in the CR zone.

6. **Commercial, General (CG)**. The CG, General Commercial Zone provides a mix of more intensive commercial uses, such as light manufacturing, automobile repair, and wholesale activity; where outdoor storage or activity commonly occurs; and where residential, civic, and educational uses are limited to avoid conflicts with allowed uses.

7. **Commercial, Rural (CRU)**. The CRU, Commercial Rural Zone is utilized to provide limited commercial uses to support agricultural, tourism, recreational and resource based industry in the Rural Regions.

PC 8/27/15 #2

(Distributed at hearing by Brenda Bailey)

Brenda Bailey <brenda.bailey@edcgov.us>

ZOU input from District 4 resident

Rob and Glo <robandglovernon@gmail.com> Thu, Aug 27, 2015 at 8:47 AM
To: dave.pratt@edcgov.us
Cc: Brenda Bailey <brenda.bailey@edcgov.us>, "charlene .tim"@edcgov.us

(Brenda, I'm not sure the email addresses for Dave and Charlene are valid. Please make sure this gets to them.)

Gentlemen:
I understand that part of the ZOU that is being proposed that deals with moto-cross tracks in rural residential neighborhoods states that you are considering allowing this kind of activity with an "Administrative Permit". I do not think that a moto-cross track is conducive to a peaceful rural neighborhood community. However, if such permits are eventually issued, a PERMIT implies "allowed activity, WITH RESPONSIBILITIES". SO, the proposed permit MUST come with certain responsibilities, and if those responsibilities are not met, the Permit can be REVOKED. Those Responsibilities must include, among other things:

1. NOISE LIMITS - No noise above 70db at the fence line of the Property, and all vehicles MUST have proper mufflers and spark arresters.
2. NO DUST ESCAPE - measures must be taken to eliminate airborne dust
3. Allowed participants - RESIDENTS ONLY no free-for-alls
4. Compatibility with the Community - If neighbors in the community affected by the Permittee are negatively affected by the Stated Use, they can complain to the County. If enough complaints are received, the Permit will be Revoked.
5. If the activity continues after complaints and the revoked Permit, FINES ensue. (If a Permit does not have any "teeth", then what good is it?)

There are places for off-road motorcycles to play. Rural neighborhoods are not one of them.

Thank You,
Rob Vernon
Thompson Hill Rd
Dist.4

(Distributed at hearing by Ellen Van Dyke) PC 8/27/15 #2 16 pages

Public Comment 8/27/15 - FEIR for the TGPA/ZOU - Ellen Van Dyke, Rescue

This project has been massively misrepresented to the public as an *implementation* of our General Plan. *But nothing could be further from the truth.* Policies integral to the General Plan that are constraints to development, were put there as protections. The ZOU is removing those protections, and calling it "implementation".

Throughout the process, we have been stonewalled when expressing our concerns, and the EIR's dismissive response to our comments is like the final nail in the coffin of public participation.

It is a complete deception to residents-and you-when staff refers to the project as 'just an amendment' or say it is 'largely reformatting changes'. Public comments in the EIR expose this deception.

Over 37,000 parcels are being rezoned under the guise of 'consistency'. There is no site specific review, so of course new inconsistencies are being created. The EIR assures us that there was only one isolated mistake, and it's corrected now; the other 36,999 changes are fine. This is disingenuous at best. There are MANY ways to achieve zoning and General Plan consistency, and alternate suggestions we have presented have been totally disregarded. The repeated statements from staff that State law requires this mass rezoning is *phenomenally* misleading.

With thousands of acres being up-zoned unnecessarily, staff says no new parcels are being created, so no new entitlements are being granted. However, subdivisions *are* a foreseeable consequence, and goal, of the project, so the EIR *should* have made reasonable forecast of these future subdivisions and their impacts.

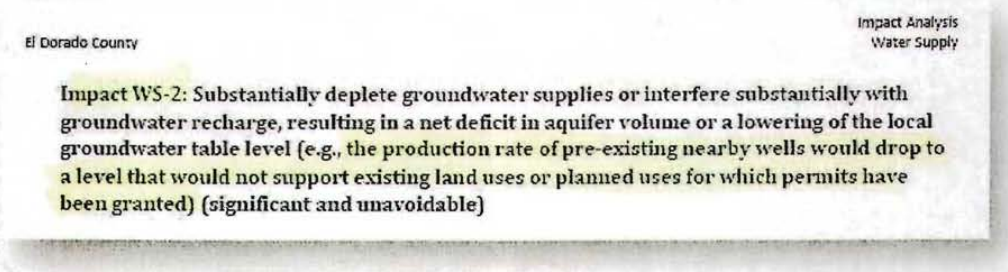
The EIR documents are *packed* with inconsistencies and misleading statements:

- one policy is touted as a constraint to development that will remain unchanged, then another policy quietly makes it optional.
- growth under the ZOU is acknowledged in some sections, then alternately denies it
- even the County's posted FAQ's are misleading-
  - Will agricultural buffers be reduced?... number12 says 'no', but policy 8.1.3.2 changes say 'yes'
  - Will densities increase? ... number 8 says 'yes, as a result of State Law'. But State Law does not require a single one of the density increases proposed.
  - Will there be Water Quality impacts? ... number 17 says 'see the NOP'; the NOP says it won't be analyzed. But the EIR says the project will "*substantially deplete groundwater supplies*" .

We have tried very hard to get a complete understanding of the changes in this update, and been rejected at every turn. It is clear that staff does not want us -*or you* - to fully understand the changes proposed or their impacts. With *38* significant impacts that cannot be mitigated, how on Earth can you say 'yes' and have your name on overriding considerations that will allow existing wells in our County to run dry *(see WS-2 below)*.

Do NOT recommend approval as requested by staff today.

Significant Impact WS-2 is one of 38 that Staff believes should be given overriding consideration:



El Dorado County

Impact Analysis
Water Supply

Impact WS-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted) (significant and unavoidable)

Attachments:

1. List of the 38 Significant impacts from Statement of Overriding Considerations, attachment 16D
2. FEIR Master Response 13, pdf p509/516 - goal was to "minimize changes"
3. Concept Area Consistency matrix, Table 2-1, TGPA strikeout version
4. Excerpt from matrix of uses, ZOU Table 17.24.020 *(pdf page 52/359)*
5. Excerpt from matrix of uses, ZOU Table 17.24.020 *(pdf page 54/359)*
6. FEIR page ES-1, "limited map corrections"
7. FEIR page ES-5, "limited zone changes"
8. Comment O-1-296, alternative for consistency with lesser impact
9. General Plan policy 5.3.1.7
10. General Plan policy 5.3.1.1
11. FEIR page 3.4-22 excerpt, 150% increase is a "small" change
12. FEIR page 8-27, claim of minimum zoning intensity
13. Examples of inadequate FEIR responses, Letter O-1

1. List of the 38 Significant impacts from attachment 16D

"the EIR identifies 38 significant environmental impacts that cannot be mitigated to a less-than-significant level, including 10 instances where the project's contribution to a cumulative impact is substantial."

Aesthetics (Section 3.1)

- AES-1: Result in a substantial adverse effect on a scenic vista
- AES-2: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway
- AES-3: Substantially degrade the existing visual character or quality of the site and its surroundings
- AES-4: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area

Agricultural and Forestry Resources (Section 3.2)

- AG-1: Convert Important Farmland, Grazing Land, land currently in agricultural production, or cause land use conflict that results in cancellation of a Williamson Act contract

Air Quality and Greenhouse Gases (Section 3.3)

- AQ-1: Generate construction-related emissions in excess of EDCAQMD thresholds
- AQ-2: Generate on-road mobile source criteria pollutant emissions in excess of EDCAQMD thresholds
- AQ-5: Expose sensitive receptors to substantial pollutant concentrations
- AQ-6: Expose sensitive receptors to substantial odors

Biological Resources (Section 3.4)

- BIO-1: Result in the loss and fragmentation of wildlife habitat
- BIO-2: Have a substantial adverse effect on special-status species
- BIO-3: Have a substantial adverse effect on wildlife movement

- BIO-4: Result in the removal, degradation, and fragmentation of sensitive habitats

Cultural Resources (Section 3.5)

- CUL-1: Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
- CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

Land Use and Planning (Section 3.6)

- LU-4: Substantially alter or degrade the existing land use character of the County
- LU-5: Create substantial incompatibilities between land uses.

Noise (Section 3.7)

- NOI-1: Exposure of noise-sensitive land uses to short-term (construction) noise
- NOI-2: Exposure to ground transportation noise sources as a result of the TGPA
- NOI-3: Exposure to ground transportation noise sources as a result of the ZOU
- NOI-4: Exposure of noise-sensitive land uses to fixed or non-transportation noise sources
- NOI-5: Exposure to aircraft noise

Population and Housing (Section 3.8)

- PH-1: 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)

Transportation and Traffic (Section 3.9)

- TRA-1: 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

Water Supply (Section 3.10)

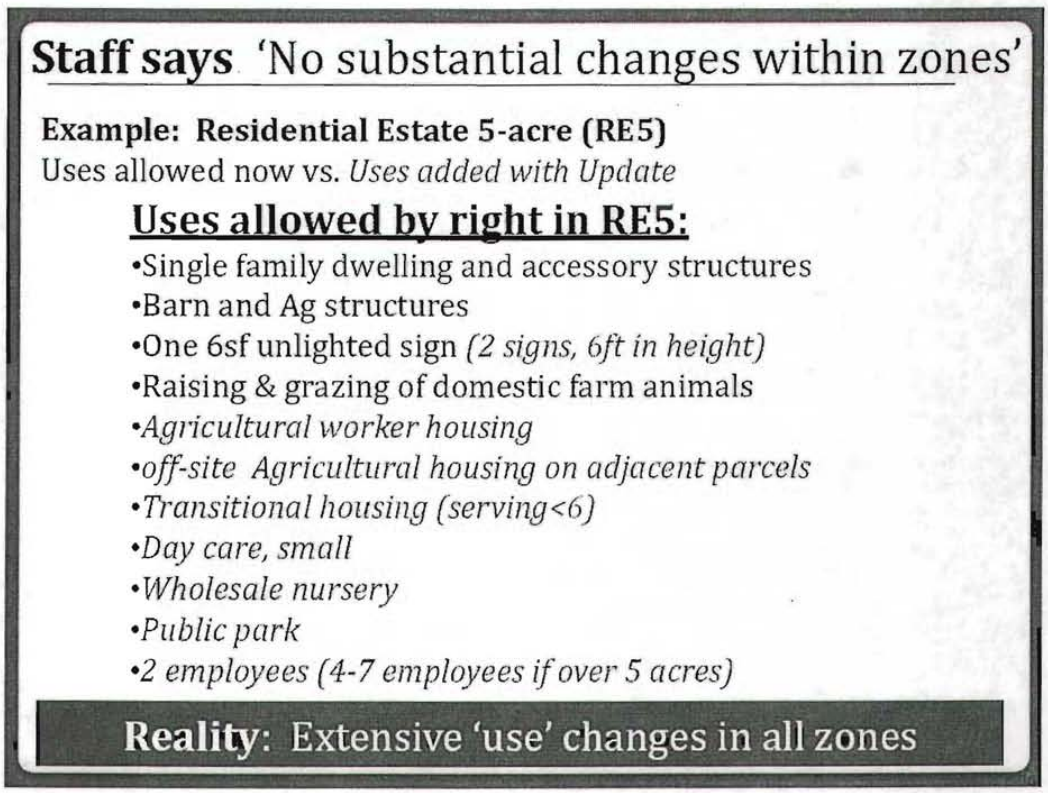
- WS-1: Create a need for new or expanded entitlements or resources for sufficient water supply
- WS-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)

2. FEIR Master Response 13, pdf p509/516 - goal was to "minimize changes"

8.14 Master Response 13: Availability of Full Text of Proposed Zoning and General Plan Changes

A number of commenters requested copies of a presentation of the proposed changes to the Zoning Ordinance in the form of strikeout and underline changes. This is simply not practical. The ZOU is effectively re-writing the County's current Zoning Ordinance (Title 130 of the County Ordinance Code) by extensively reorganizing the format and content of the ordinance, as well as making changes to some of the zoning classifications themselves. The ZOU has proposed changes to some of the allowed uses, development standards and permitting requirements found in the current Zoning Ordinance. However, the County's goal in revising the Zoning Ordinance has been to minimize changes, per the Board of Supervisors' direction. So, although the proposal involves extensive reformatting of the Zoning Ordinance, the uses allowed within many of the zoning classifications have not changed substantially. Changes in uses that have the potential to result in significant environmental impacts are identified and examined in the TGPA/ZOU EIR.

From Citizen's group slideshow in April, showing a sample of new entitlements/by-right uses in RE5 zone:



3. Concept Area Consistency matrix, Table 2-1, TGPA strikeout version

Policy 2.2.1.1 The matrix contained in Table 2-1 provides for the relationship and consistency between the General Plan planning concept areas and the land use designations.

TABLE 2-1
PLANNING CONCEPT AREAS AND LAND USE DESIGNATION CONSISTENCY MATRIX

Land Use Designations	Concept Areas		
	Community Regions	Rural Centers	Rural Regions
Multifamily Residential*	•	•	
High-Density Residential*	•	•	
Medium-Density Residential*	•	•	
Low-Density Residential	•	•	•
Rural Residential			•
Agricultural Lands			•
Natural Resource			•
Commercial*	•	•	•
Research & Development	•	•	
Industrial	•	•	•
Open Space	•	•	•
Public Facilities	•	•	•
Tourist Recreational	•	•	•

~~* May be applied in Rural Regions to reflect existing development when combined with the Platted Lands (-PL) overlay land use designation.~~

4. Excerpt (partial list) from matrix of uses, ZOU Table 17.24.020 - child & community care facilities, and employee housing no longer require discretionary reviews

Table 17.24.020 Residential Zone Use Matrix

RM: Multi-unit Residential R1, R20K: Single-unit Residential R1A: One-acre Residential R2A: Two-acre Residential R3A: Three-acre Residential RE: Residential Estate NS: Neighborhood Service	P Allowed use PD Planned Development Permit required (17.52.040) A Administrative Permit required (17.52.010) CUP Conditional Use Permit MUP Minor use Permit required (17.52.020) TMA Temporary Mobile Home Permit required (17.52.050) TUP Temporary use permit required (17.52.060) — Use not allowed in zone

USE TYPE	RM	R1, R20K	R1A	R2A	R3A	RE	Specific Use Regulation
Residential							
Child Day Care Home: Small Family Day Care Home	P	P	P	P	P	P	17.40.110
Large Family Day Care Home	CUP	A	A	A	A	A	
Community Care Facility: Small (serving 6 or fewer)	P	P	P	P	P	P	
Large (serving 7 or more)	CUP	CUP	CUP	CUP	CUP	CUP	
Dwelling: Multi-unit	P	—	—	—	—	—	
Single-unit, attached	P	P	—	—	—	—	
Single-unit, detached	P[1]	P	P	P	P	P	
Temporary During Construction	—	P	P	P	P	P	17.40.190
Employee Housing: Agricultural- Six or fewer	—	P	P	P	P	P	
Seasonal Worker in compliance with standards	—	—	A	A	A	A	17.40.120
Seasonal Worker not in compliance with standards	—	—	CUP	CUP	CUP	CUP	
Construction	TUP	TUP	TUP	TUP	TUP	TUP	17.40.190
Guest House	—	P	P	P	P	P	17.40. 150
Hardship Mobile Home	—	TMA	TMA	TMA	TMA	TMA	17.40.190
Kennel, private	—	—	—	—	—	CUP	17.40.080
Mobile/Manufactured Home Park	CUP	CUP	CUP	CUP	CUP	CUP	

5. Excerpt from matrix of uses, ZOU Table 17.24.020 (highlights not added)- motor cross tracks go to the director for review, not the Planning Commission.

RM: **Multi-unit Residential**	P Allowed use
R1, R20K: Single-unit Residential	PD Planned Development Permit required (17.52.040)
R1A: **One-acre Residential**	A Administrative Permit required (17.52.010)
R2A: Two-acre Residential	CUP Conditional Use Permit
R3A: Three-acre Residential	MUP Minor use Permit required (17.52.020)
RE: **Residential Estate**	TMA Temporary Mobile Home Permit required (17.52.050)
NS: Neighborhood Service	TUP Temporary use permit required (17.52.060)
	— Use not allowed in zone

USE TYPE	RM	R1, R20K	R1A	R2A	R3A	RE	Specific Use Regulation
Wineries	—	—	—	—	—	CUP**	17.40.400
Industrial							
Mineral Exploration	A	A	A	A	A	A / CUP	Chapter 17.29
Mining	CUP	CUP	CUP	CUP	CUP	CUP	
Storage Yard: Equipment and Material Temporary	TUP	TUP	TUP	TUP	TUP	TUP	
Recreation and Open Space							
Golf Course	CUP	CUP	CUP	CUP	CUP	CUP	
Hiking and Equestrian Trail	P	P	P	P	P	P	
Marina, Non-motorized Craft	—	—	—	—	—	CUP	
Off-highway or Off-road Vehicle Area	—	—	—	—	—	A	17.40.210
Parks (Public): Day Use	P	P	P	P	P	P	
Nighttime Use	CUP	CUP	CUP	CUP	CUP	CUP	

Administrative permit authority under the ZOU:

17.50.030 Review Authority for Allowed Uses and Permit Decisions

The review authority of original jurisdiction for each type of application or use entitlement shall be as provided below in Table 17.50.030.A. The nature of the initial action (i.e. issue, decide, or recommend) is shown, in compliance with Chapter 17.52 (Permit Requirements, Procedures, Decisions, and Appeals).

Table 17.50.030.A Review Authority

Type of Application	Citation	Director	Zoning Administrator	Planning Commission	Board of Supervisors
Administrative Permit	17.52.010	Issue[4]	–	Appeal	Appeal
Minor Use Permit	17.52.020	Recommend[1]	Decide	Appeal	Appeal
Conditional Use Permit	17.52.021	Recommend[1]	Decide[2]	Decide	Appeal

6. FEIR page ES-1, 'limited map corrections' - extent of changes being downplayed

ES.1.1 TGPA

The TGPA consists of a limited set of amendments to the County's adopted General Plan.

- **Map corrections.** The TGPA includes a limited number of corrections to Land Use Map errors on individual parcels (approximately one tenth of one percent of the existing parcels) discovered subsequent to the adoption of the General Plan in 2004.

7. FEIR page ES-5, "limited zone changes"- extent of changes being downplayed

ES.1.2 Zoning Ordinance Update

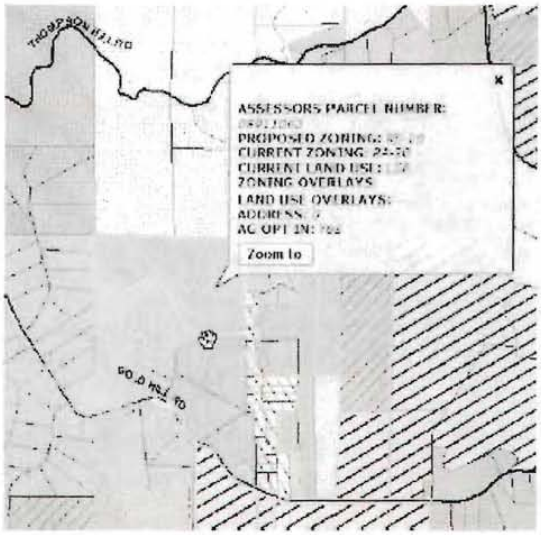
- County-Initiated Zone Changes. State Planning and Zoning Law requires the County's Zoning Ordinance to be consistent with the General Plan. The ZOU proposes limited zone changes on individual parcels to reflect the General Plan designations for those sites. Where more than one zone classification would be consistent with the General Plan, the most restrictive zone would be applied. These zone changes would apply to an extensive number of parcels across the western portion of the county.

8: Comment O-1-296, suggested alternative for consistency with less impact

16. Regarding the changes proposed for Table 2-2 consistency between zoning and land use:
As proposed, consistency is being acheived by rezoning parcels that have 20 acre minimum lot requirements within the LDR land use, down to a zone that has 10 acre minimum lot requirements. The net effect is a significant increase in density without individual public review of those parcels, and this increase must be evaluated and quantified in the draft EIR, for - at minimum - the potential increase in housing and population, public services requirements, aesthetics and loss of rural character.

O-1-296

Example: APN 089-110-62



As an alternative method for acheiving the same goal of 'consistency', the LDR definition could be modified rather than the table, to allow zoning for 20 acre minimum sized parcels to remain within the Low Density land use designation, as they exist now, with no changes.

9. Existing General Plan policy 5.3.1.7, to remain

Policy 5.3.1.7 In Community Regions. all new development shall connect to public wastewater treatment facilities. In Community Regions where public wastewater collection facilities do not exist project applicants must demonstrate that the proposed wastewater disposal system can accommodate the highest possible demand of the project.

10. TGPA strikeout version, Policy 5.3.1.1, revision neuters the remaining 5.3.1.7 constraint

Policy 5.3.1.1 High-density and multifamily residential, commercial, and industrial projects ~~shall~~ may be required to connect to public wastewater collection facilities if reasonably available as a condition of approval. ~~except in Rural Centers and areas designated as Platted Lands (PL). In the Community Region of~~ Camino/Pollock Pines, the long term development of public sewer service shall be encouraged~~; however, development projects will not be required to connect to wastewater collection facilities where such connection is infeasible, based on the scale of the project.~~ (Res. No. 298-98; 12/8/98)

11. FEIR page 3.4-23, 150% increased density is downplayed as 'small'

- *Policy 2.1.2.5* is proposed to be amended such that the maximum residential density allowed for mixed use development in a Rural Center would increase from 4 dwellings per acre to 10 dwellings per acre. This would result in a small increase in the potential intensity of residential development in Rural Centers. However, this does not substantially change the potential location of future development or the effect on biological resources. Future residential development would impact biological resources where it disrupts or destroys habitat and interferes with the life patterns of wildlife and plants. However, the proposed amendment to Policy 2.1.2.5 does not increase the potential for residential development to have this effect or expand the area subject to this impact. The impact would be significant and unavoidable, the same as concluded in the 2004 General Plan EIR.

12. FEIR page 8-27, claim of minimum zoning intensity

As discussed in Master Response 5, the TGPA would not substantially increase the overall level of development analyzed in the 2004 General Plan EIR. The impacts associated with the proposed zone changes would be less than those disclosed in the 2004 General Plan EIR because the ZOU is rezoning properties to the lowest density/intensity zoning classifications that are consistent with their respective General Plan designations. At the same time, as discussed in Chapter 3.10 of the partial Recirculated Draft EIR, new conditional uses that may be approved under the ZOU could result in substantial, localized new demands on groundwater supplies.

Reality:

The existing General Plan allows for a broader range of zones within certain Land Use districts under Table 2-4, than staff is acknowledging. LDR can accommodate 20-40 acre parcels, but for "consistency" these are all being up-zoned to minimum 10 acre zoning.

Additionally, the bulk of AE parcels are changing to minimum 10-acre zoning, representing many thousands of acres up-zoned.

Across multiple zone districts, there are tens of thousands of acres being zoned for higher density.

TABLE 2-4
GENERAL PLAN LAND USE DESIGNATION AND ZONING DISTRICT CONSISTENCY MATRIX

Zoning Districts[1]	Land Use Designation:[2]											
	MPR	HDR	MDR	LDR	RR	AL	NR	C	R&D	I	OS	TR
RM & R2	•											
MP	•	•										
R1 & R20,000		•										
R1A			•									
R2A			•									
R3A		◊	•									
RE-5	◊	◊	◊	•								
RE-10	◊	◊	◊	•	•							
RA-10			◊	•	•	•						
RA-40+			◊	◊	•	•	•					
NS[3]	•	•	•									
CH								•				•
C								•				
CPO, CP, CG								•				
R&D									•	•		
I										•		
IR[3]					•	•	•			•		
A & SA-10				•		•						
PA				•	•	•						
AE				•	•	•	•					
TPZ				◊	•	•	•					
FR[3]				◊	•	•	•					
MR					•	•	•	•		•		
RF	•	•	•	•	•		•	•			•	•
RT	•							•				
CN				•	•						•	
OS	•	•	•	•	•	•	•	•	•	•	•	
TC	•	•	•	•	•		•	•	•	•	•	•
LEGEND	• – Consistent					Inconsistent						

Notes:
[1] Proposed new zone districts: CH - Highway Commercial; NS - Neighborhood Service; IR - Resource Industrial; and FR - Forest Resource
[2] Zone district intensity/density of permitted uses within acceptable range of land use designation
[3] Zone district intensity/density of permitted uses below the acceptable range of land use designation
[4] See table below for land use designations and zoning districts

Specific Examples:

- **APN 126-020-02** - Dixon Ranch parcel, one of four totaling 280 acres being up-zoned from AE to RE10. This is both a conversion of agriculture land without the required mitigation, and a zoning increase. Both may assist with the current development application being processed for a high density subdivision on that land.
- **APN 329-171-74** - 3.4 acre parcel in an MDR zone, consistent per existing Table 2-4. The rezone is NOT being done to the minimum 3Acre zoning, but rather is being up-zoned to 1 acre zoning.
- **APN 319-260-01** is bordered on 3 sides by residential use, but is being rezoned from RE5 to R&D. Why not change the Land Use to match the *other 3 sides* rather than create new potentially incompatible uses. Uses allowed under the R&D zone that may or may not receive review by the Planning Commission: manufacturing, hazardous materials handling, storage yard or distribution center, heliport, entertainment center, restaurant, or special events.
- **APN 123-030-75** - Open Space zoning changed to R1 within a Specific Plan. Uh, why?
- **APN 115-400-12** from RF to RF-H, which received the response in the FEIR that this was an isolated case:

O-1-330

The proposed rezoning is erroneous. The rezoning identified in this comment does not conform to the criteria established for rezonings. The proposed zoning will be revised to Recreational Facilities, Low Intensity (RFL) prior to adoption, which is in keeping with the open space nature of the site. This is an isolated case and not representative of the manner in which the rezoning criteria have been applied in general.

Reminder: 37,000 parcels being changed.

13. Examples of inadequate FEIR responses to comments

Notes on FEIR Responses, E Van Dyke - Letter O-1, Chapt 9

Comment O-1-14: Regarding mixed use density increases under policies 2.1.1.3 & 2.1.2.5 - the FEIR indicates an increase from 4 units/ac up to 10 units/acre(150% increase) is "small", on page 3.4-22, downplaying the impact:

- *Policy 2.1.2.5* is proposed to be amended such that the maximum residential density allowed for mixed use development in a Rural Center would increase from 4 dwellings per acre to 10 dwellings per acre. This would result in a small increase in the potential intensity of residential development in Rural Centers. However, this does not substantially change the potential

The DEIR pg 2-6 says the increase is required by state law: 2009 amendments to CGC 65583.2cB3. But when looked up, this law is not a 'requirement', but rather a consideration that 'might be deemed appropriate'. The response under O-1-309 & -310 is a non-response, and discusses unrelated Noise issues.

O-1-14

Please see responses to comments O-1-309 and O-1-310. No changes to the DEIR are necessary.

The FEIR also claims no impact because the area subject to the impact is not expanded; this is *not true*, due to potential areas of increased development per the ZOU:

- ZOU increases the percentage of residential component (reduces 30%commercial to 15% in MFR)
- increased hillside development (ok on areas exceeding 30%)
- ZOU exempts MU from open space requirement (17.28.050B)
- ability to develop within riparian setbacks (ZOU 17.30.030G5a)

Comment O-1-15: Comment questioned the fact that the Project Description did not match the intent of the ROI, which was to reference the General Plan Objective regarding the importance of Open Space in the policy 2.2.1.2 definition.

> "**Objective 7.6.1: IMPORTANCE OF OPEN SPACE**. Consideration of open space as an important factor in the County's quality of life."

The Project instead does the opposite, reducing open space, thus the question. The response not only didn't answer it, but claimed it was "sufficiently clear", then further changed the project description to leave open space out entirely. Only pictures can describe this -

The intent from ROI 182-2011:

Policy 2.2.1.2 and Table 2-1

12-0837 C 1 of 11

(continued on next page of ROI)

Table 2-1 & Commercial and Industrial Use: Consider amending General Plan Table 2-1 and Policy 2.2.1.2 for Commercial and Industrial to allow for commercial and industrial uses in the Rural Regions.

Commercial/Mixed Use: Consider deleting the sentence, "*The residential component of the project shall only be implemented following or concurrent with the commercial component.*"

Industrial Use: Consider deleting the requirement for Industrial Lands to be restricted to only industrial lands within, or in close proximity to Community Regions and Rural Centers. Delete the requirement that Industrial Lands in Rural Regions can only provide for on-site support of agriculture and natural resource uses.

Multi-Family Use: Consider amending density from 24 units per acre to 30 units per acre to comply with California Government Code 65583.2(o)(iv) and (e) which requires jurisdictions within Metropolitan Statistical Areas (MSA) of populations greater than 2,000,000 to allow for up to 30 units per acre when determining sites to meet the low and very low housing allocation categories. El Dorado County is located within the Sacramento MSA. Amend the Multi-Family land use to allow for commercial as part of a mixed use project. Amend the Multi-Family land use to encourage a full range of housing types including small lot single family detached design without a requirement for a Planned Development.

High Density Residential Use: Consider deleting requirement for a Planned Development application on projects of 3 or more units per acre.

Open Space: Consider amending policy to make reference to Objective 7.6.1

From Response to O-1-15, shows removing this Open Space reference altogether in the FEIR project description:

O-1-15

The commenter correctly points out an editorial error on page 2-7 of the DEIR. There is no Policy 2.2.1.2 Open Space to be amended, and most of this language is in the previous policy revision in the list.The text has been revised in the FEIR to correct the error, as shown below and in Chapter 5 of

this FEIR, although the intent of the original language is sufficiently clear to allow an understanding of what is being proposed. For clarity, the following change was made:

Page 2-7, second to last paragraph from the bottom is corrected as follows:

Policy 2.2.1.2: High Density Residential. The requirement for a planned development application on projects of three or more dwelling units per acre to allow for additional moderate income housing options would be deleted.

~~*Policy 2.2.1.2:* Open Space. The policy to refer to General Plan Objective 7.6.1 and to allow for additional moderate income housing options would be amended.~~

Comment O-1-19: RF parcels supposedly change to RF-H inside CR's & RC's, and to RF-L inside Rural Regions. The Bass Lake parcel (APN 115-400-12) in the RR outside EDH was proposed for RF-L, and this comment questions that. The Planning staff fought this, the Commission discussed it at length, and it was not changed in the re-circulated project description. The responses in the FEIR are completely inconsistent with each other:

O-1-19

The commenter is correct. The rezoning identified in this comment does not conform to the criteria established for applying the Recreational Facilities, High-intensity (RF-H) zone classification. The existing RF zoning will be retained. This is an isolated case and not representative of the manner in which the rezoning criteria have been applied in general.

The commenter misunderstands Section 2.2 of the DEIR with regard to changes to community plans. As stated there, the TGPA is not proposing changes to any of the adopted community plan. By definition, the rezoning that the commenter is taking issue with is not a change to the community plan.

Response O-1-294 said the rezone was necessary for consistency, and I-1-330 said it would be changed to RF-L.

Comment O-1-21: The concern expressed is that in spite of the multiple outreach meetings, a comprehensive list of the proposed changes had never been made available. This comment was made on the DEIR, and the re-circulated Project Description did not address the issue. Numerous clarifications to the description were indeed made with the Final EIR, which is too late to ask questions because the analysis is complete!! In spite of the clarifications that *have* been provided, there is still no comprehensive list of ZOU changes; without reading the entire document line by line, the changes are unknown.

We felt *very* strongly that staff did not WANT us to know what changes are proposed.

Additionally, if the Zoning Ordinances themselves make up the Project Description, the level of detail should be greater than that of a 'program' EIR, yet MANY responses fall back to "this is a program EIR".

Comment O-1-28: This is a request for clarity on the elimination of the Special Use Permit required under 8.2.4.2, and the response says it is NOT being eliminated - BUT IT IS ...*(TGPA strikeout version page 24)*

Policy 8.2.4.2 ~~A special use permit shall be required for v~~Visitor serving uses and facilities ~~providing they are~~ shall be allowed in the Zoning Ordinance when compatible with agricultural production of the land, are supportive to the agricultural industry, and are in full compliance with the provisions of the El Dorado County Code and compatibility requirements for contracted lands under the Williamson Act.

Comment O-1-36: Riparian setbacks are set in the General Plan at 50'/100', and awaiting the implementation of a corresponding ordinance in the zoning code since 2004. The ZOU proposes 25'/50' with no explanation as to why 50'/100' are not feasible, or why the reduced protection is adequate.

The FEIR response appears to be that *'at least there is an ordinance now, so it's better'*. That is not an adequate reason to reduce the setbacks that we have been anticipating for 11 years now.

Comment O-1-129 thru 131: These comments question the efficacy of the County's mitigations, and why residents should feel confident they (..mitigations) have any meaning in THIS project.

The Response does not buoy our confidence. These respondents are experienced in the EIR business, and they understand the importance of mitigation, and the fact that they say it's not in their scope of work seems like they don't have the confidence EDC will follow through either.

The Grand Jury report referenced in Master Response 8 was testimony that EDC does not enforce its regulations and standards, to the detriment of the environment. The respondent for the project reports that they disagree with the findings of the Grand Jury, because EDC maintains an active code enforcement program. This is truly arguable - the department head was never replaced when he retired, and it is well known among residents that Enforcement does not have staffing for anything beyond safety violations.

Mitigation measures must be enforceable, and they must be monitored to ensure that they are implemented, NOT adopted and then disregarded.

End Attachments

(Distributed at hearing by Lori Parlin) PC 8/27/15 #2 13 pages

8-27-15 Comment by Lori Parlin, Planning Commission Hearing re: TGPA/ZOU

1. Regarding the FEIR, Final Environmental Impact Report, the responses to my comments were sometimes confusing, sometimes conflicting, and sometimes not based upon evidence and reason.

2. For an example of confusing, when I proposed using setbacks and screening to reduce nuisance impacts on neighbors the responses (0-1-452&453) did not explain why those proven, reliable, and feasible suggestions were not adopted.

3. For an example of conflicting, the response to my comment 0-1-451 indicates that the traffic impacts from Home Occupations will be insignificant after mitigation, but Table ES-1 in the FEIR indicates the impacts will be significant and unavoidable. The impacts cannot be both insignificant after mitigation and significant and unavoidable. They have to be one or the other.

4. For an example of not based upon evidence, the response to my comment 0-1-452 indicates that no analysis of nuisance impacts is required because the Home Occupations provisions prohibit these impacts. The response 0-1-455 indicates that the County should adopt a mitigation monitoring program. However, this ignores the fact that County enforcement staff has indicated that they have no effective means to prohibit fumes from leaving a site. In addition, the 2008 Ad Hoc Subcommittee concluded that the County had no funds or staff for a mitigation monitoring program. Finally, the EIR notes that many of the 2004 general plan provisions intended to mitigate impacts have not yet been implemented. The General Plan reveals that some of these had mitigation deadlines that have been missed.

5. The EIR's review of the impacts of Home Occupations remains grossly inadequate. The EIR needs to actually evaluate the potentially significant impacts of Home Occupations; use proven, reliable, and feasible mitigation measures; outline a fully staffed and fully funded mitigation monitoring and enforcement program; and then be recirculated for public comment.

6. The good people of El Dorado County depend on the County to actually balance the interests of property owners, not merely to pretend to do so on paper. You can't just talk the mitigation talk, you have to walk the mitigation walk.

Attachment:

Detailed analysis of FEIR responses O-1-451 through 456 regarding Home Occupations Presentation from 2008 Ad Hoc Subcommittee

8-27-15 TGPA/ZOU Detailed analysis by Lori Parlin of FEIR responses O-1-451 through 456 regarding Home Occupations

Overriding issue regarding the FEIR:

See Home Occupancy Response O-1-455 and O-1-458. If the County is willing to use nonexistent and unattainable policies as mitigation for this project, then the whole thing needs to be thrown out the window. How many other nonexistent mitigations are hidden throughout the EIR?

Conflicting statements regarding Home Occupancy:

From Response O-1-451:

"However, given the number of additional employees allowed by right on larger rural parcels, it is reasonable to assume that traffic impacts could be significant in some situations at some time in the future. Mitigation has been included in the TGPA/ZOU EIR that will reduce this impact to a less-than-significant level" conflicts with **Table ES-1. Impacts and Mitigation,** which states that the impacts are Significant and Unavoidable.

3.9 Transportation and Traffic			
TRA-1: 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[2]	S	TRA-1: Extend timeframe of General Plan Transportation and Circulation Element Policy TC-Xa TRA-2: Reduce the Proposed Number of Employees Allowed by Right at Home Occupations	SU

Home Occupancy Response O-I-452:

The response fails to provide analysis of distances required to avoid nuisances from Home Occupations using Heavy Commercial Vehicles. Instead, it relies on mitigation that is faulty and currently unattainable in El Dorado County. Simply stating that "No analysis of the potential for heavy commercial vehicles to create noise, vibration, dust, glare, fumes, odors, or electrical interference is necessary. Subsection C.6 prohibits these impacts 'as detectable by normal senses off-site,'" is faulty because there are current projects within the County that are "detectable by normal senses off-site," yet the County refuses to acknowledge the complaints because the complaints were not witnessed by a County official. Will the County be able to hire enough new personnel to go to sites and witness these nuisances?

It would have been fairly simple for the analysis to have been more thorough to include a list of estimates for how much distance is needed between a residence and a truck tractor

so that a nearby residence is not disturbed by the fumes, vibrations, or noise of Heavy Commercial Vehicles. **Table 3.7-2. Typical A-weighted Sound Levels** in the FEIR is an example. Maybe 300' (the length of a football field) is far enough away so that nearby residences would not be impacted by noisy, smelly commercial vehicles. The very name "Heavy Commercial Vehicle" indicates that these should NOT be in a residential neighborhood, unless there is sufficient distance between the residence and the home occupation.

Vehicle, Heavy Commercial. Vehicles used for commercial purposes that require a Commercial Driver's License in compliance with state Department of Motor Vehicle regulations. These vehicles include, but are not limited to buses or cars that seat ten or more passengers, tow trucks, dump trucks, truck tractors with or without semi-trailers, flat bed trucks, fork lifts, front end loaders, backhoes, logging vehicles, graders, bulldozers, and other similar construction equipment.

Table 3.7-2. Typical A-weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher in next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
	0	

Source: California Department of Transportation 2013.

Home Occupancy Response O-1-453:

The text below was added to the FEIR to show that Home Occupations in more rural areas could result in a significant impact on aesthetics. However, there is no explanation as to why this was only applied to more rural areas when, in fact, the less rural, more suburban areas consisting of one acre parcels would be impacted just as much because there is less space for relief from the potential intensive home occupation nearby.

There is no explanation as to why a mitigation measure wasn't added to require that Heavy Commercial Vehicles, goods and materials be screened from adjacent property owners in addition to the required screening from a right-of-way or road easement.

Text added to page 3.15 of the FEIR regarding Aesthetics and Home Occupations:

> The aesthetics impact of future home occupations, absent information about the type of use, existing visual setting and its intensity, and the extent to which the use may degrade the setting, cannot be known at the site level. However, because these uses may be applied for in rural areas that are of high visual quality, that there may be instances where a home occupation that would be allowed by right under Section 17.40.160 could adversely affect the aesthetics of its surroundings. The same would be true for more intensive home occupations requiring a discretionary permit. Although more intensive uses would require a conditional use permit and would be subject to CEQA analysis, that does not assure that the use would not result in a significant impact.

Home Occupancy Response O-1-455:

The EIR relies on a nonexistent mitigation monitoring program to ensure that CEQA is followed. This is unacceptable as there are no guarantees that this program will EVER be created.

> permit. The County would be required to adopt a mitigation monitoring and reporting program to ensure the mitigation measures identified in the CEQA document are implemented, and the conditions of approval would incorporate any mitigation measures identified in the CEQA document.

The text below is from a presentation given to an ad hoc subcommittee in 2008. At that time the County did not have a mitigation measure monitoring program. It is now 2015. The County still does not have a mitigation measure monitoring program. The County is currently in a financial debt crisis, with a best estimate of recovery in 5 years. It is unacceptable to use a nonexistent program as mitigation for negative impacts.

- El Dorado County has no adopted mitigation measure monitoring program
  - No funds or staff resources to ensure that mitigation measures are effectively implemented
  - Staff must rely on applicant to assist with mitigation monitoring by submitting site photos of mitigation measure implementation

Home Occupancy Responses O-1-456 through O-1-461:

These responses all refer to Response O-1-455 for environmental review. These are all serious negative impacts from a potential Home Occupancy and should each be given thorough analysis to alleviate concerns to nearby neighbors.

Home Occupancy Response O-1-458:

It is a bold-faced lie to state that the County can ensure that paint fumes would not escape the home occupation.

O-1-458

Paint spray booths and automotive refinishing coating are regulated by the El Dorado County Air Quality Management District under its Rule 230 to limit the emission of volatile organic compounds from finishing or refinishing. This would ensure that fumes would not escape from a home occupation. Please see response to comment O-1-455 regarding environmental review of conditional use permits.

The mitigation in this response is completely nonexistent and unattainable, as you CANNOT prevent paint fumes from floating onto another property. This is evidenced in a statement to Lori Parlin by Dave Johnston of the Air Quality Management District on June 7, 2012, regarding the paint fumes that leave the Kniesel's property and are a nuisance to the adjacent property.

6/7/12 Thursday 2:00pm – Called and reported smells to Dave Johnston at Air Quality Management, also emailed my log to him. He called back and said he would have Levi go out and visit the facility. Dave explained that paint booth ventilation systems remove particulate matter from the paint exhaust, but cannot remove fumes. I told him I was angry about that because we had been assured by Tom and Erin Kniesel at a meeting years ago that their businesses are good neighbors and that we would not notice that they were even there because they do all of their work inside. He said there was nothing he could do about the paint smells or sounds.

10-15

Environmental Document Preparation

Ad Hoc Committee Subgroup Presentation

June 18, 2008

Timing

- Initial studies average 25 to 35 pages and become the ND or MND upon completion
- Typically requires 10 to 25 staff hours to prepare draft document
- MNDs usually require more time because of mitigation measure development and complex nature of projects

Environmental Document Resources

- Technical studies submitted by project proponent
  - Air quality, biological, cultural resources, traffic, etc.
- GIS maps
- General Plan, Zoning Ordinance, and Grading Ordinance
- Agency comments

Initial Study Overview

- Project description
- 17 environmental factors to consider
- Negative Declaration
- Mitigation Negative Declaration (MND)
- Mitigation Measures required for MND and must be agreed to by applicant for project to proceed

Challenges

- Inadequate project description at time of application submittal
  - Applicant's project proposal is unclear or incomplete
  - LAFCO involved if annexation is proposed
- Potential off-site improvements not analyzed in technical studies
  - Road widening
  - Water/sewer line extension
- No recommendations included in technical studies
  - Studies consist of assessment or inventory of site with no recommended mitigation measures or conclusions regarding potential environmental impacts

Challenges Continued

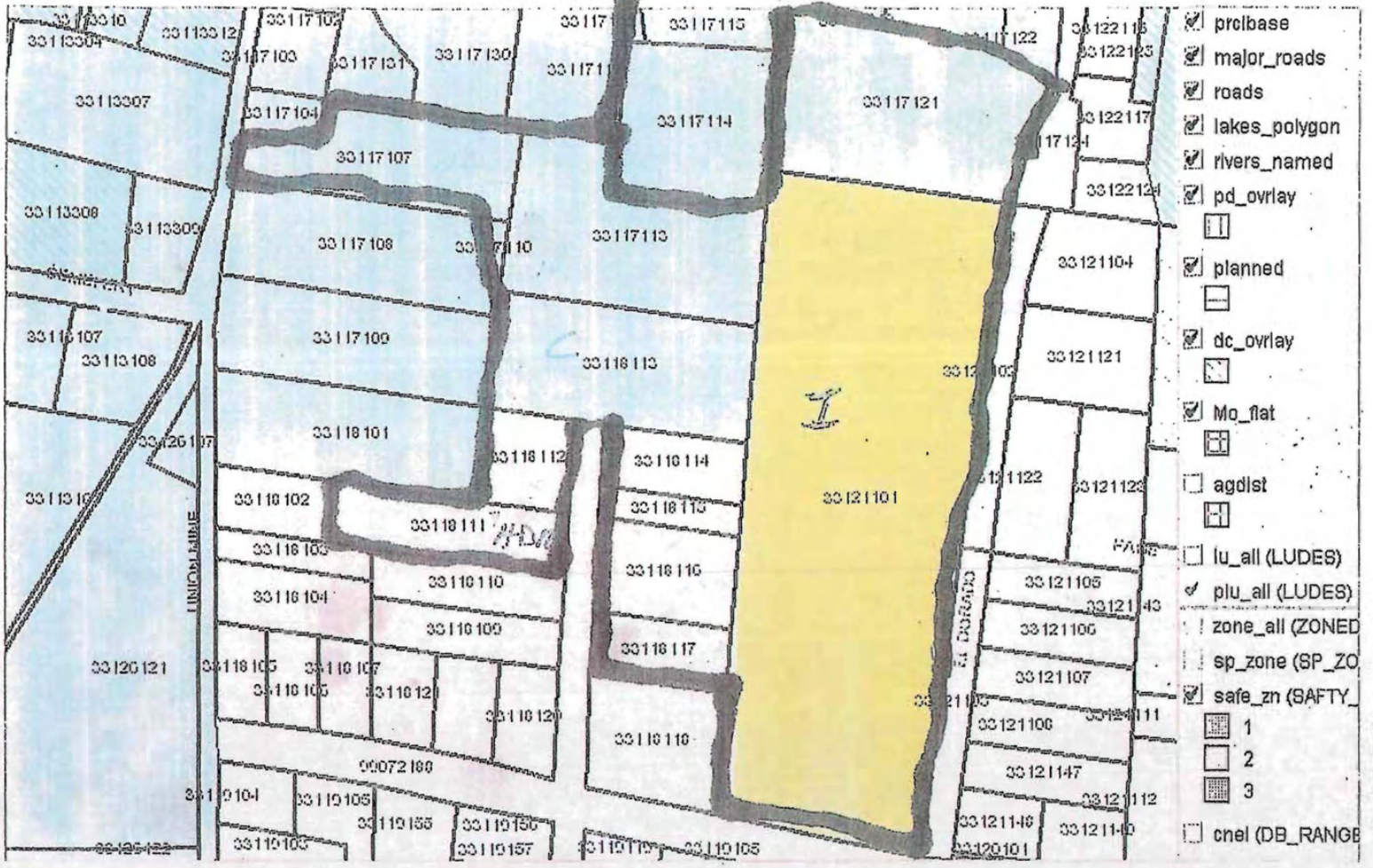
- No adopted local CEQA Guidelines
  - Each local agency may adopt CEQA guidelines
  - Thresholds of significance for potential environmental impacts
    - Air quality
    - Noise
    - Traffic

Challenges Continued

- Significant project changes occur during preparation of initial study
  - Applicant increases or reduces number of proposed lots in subdivision
  - Floor area increases in commercial development
- El Dorado County has no adopted mitigation measure monitoring program
  - No funds or staff resources to ensure that mitigation measures are effectively implemented
  - Staff must rely on applicant to assist with mitigation monitoring by submitting site photos of mitigation measure implementation

Ron's Issue

Google Plan



(Distributed at hearing by Rod Pimentel)

PC 8/27/15
#2
2 pages