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Board of Supervisors
County of Santa Barbara
105 E. Anapamu Street, Room 407
Santa Barbara, CA 93101

Subject: Biological Resources Review of the Santa Barbara Ranch Final EIR (04EIR-00000-00014)

Dear Supervisors:

This letter provides information related to the Santa Barbara Ranch Final Environmental Impact Report (FEIR) related specifically to biological resources. The EIR is seriously flawed in how it characterizes and analyzes project-related impacts to the flora and fauna of the project site. The flaws stem primarily from the lack of appropriate scientifically acceptable baseline studies of the project site, in a uniform and consistent manner. This has resulted in the EIR consultants not being able to credibly or accurately assess the true project impacts to the biological resources. This must be rectified. Below I will demonstrate how the analysis is flawed, and how it can be remedied.

For any credible assessment, we must start with an accurate and complete description of the baseline (existing) conditions. While the EIR states that it had adequate baseline information, I will demonstrate how this is in error. Some background information in the rules that must be applied, and the minimum professional standards and protocols that must be applied, is necessary to put this into context.

1. General Plan and Local Coastal Plan policies must be followed.
2. State and federal assessment guidelines should be followed.
3. Minimum professional standards should be followed.

The old adage, "Garbage in, garbage out" applies here. As I have pointed out in my detailed letter critiquing the DEIR and Revised DEIR, lots of garbage (flawed data, data gathered in a biased manner, data used in a scientifically and statistically unsound manner) was collected and then used to conduct the impact assessment. The EIR consultants used flawed data as the basis for their assessment, so it is no wonder that their conclusions are flawed. Even though the EIR consultants justify all their work and conclusions as accurate and appropriate, they miss the fact that the underlying data they used were flawed.

I will demonstrate why the botanical surveys were inadequate. I will demonstrate why the plant communities were inadequately described and sampled. I will demonstrate why some of the annual grassland onsite meet definitions as ESHA.

First, I will provide you with a summary of what the federal and state resource agencies, and the botanical profession, expects from field surveys and reports to be used for CEQA and NEPA review purposes. Second, I will delineate why the "baseline" survey reports are flawed, report-by-report. Third, I will provide evidence that grasslands onsite, some of them, qualify as ESHA.

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Minimum Botanical Survey Requirements

The United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), and the California Native Plant Society (CNPS) each have adopted very similar protocols and guidelines for botanists to follow when conducting fields surveys and documenting habitat conditions of a project site proposed for development. Copies of these survey guidelines/protocols are attached for reference, and are incorporated herein. Specific pertinent requirements are discussed below:

USFWS Guidelines (published in 2000[1]), item "3. List **every** [emphasis added] species observed and compile a comprehensive list of vascular plants for the entire project site. Vascular plants need to be identified to a taxonomic level which allows rarity to be determined" and 4e., "a comprehensive list of all vascular plants occurring on the project site for each habitat type".

CDFG Guidelines (published in 1983 and revised in 2000[2]), item 4b. "Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report".

CNPS Guidelines (published in 1983 and revised in 2001[3]), item 4b, "Floristic in nature. A floristic survey requires that every plant observed be identified to species, subspecies, or variety as applicable. In order to properly characterize the site, a complete list of plants observed on the site shall be included in every botanical survey report. In addition, a sufficient number of visits spaced throughout the growing season is necessary to prepare an accurate inventory of all plants that exist on the site. The number of visits and the timing between visits must be determined by geographic location, the plant communities present, and the weather patterns of the year(s) in which the surveys are conducted."

These guidelines developed and published by the federal and state biological resource agencies, and the botanical profession, through CNPS, establish the minimum standards by which botanical resource inventories are to be conducted. These are the standards expected of the botanical consulting profession.

Section 3.4.2.1 of the FEIR states that the entire project site was visited by a biologist at least once. Focusing only on the botanical resource, knowing that SAIC botanists spent nearly all of their time either sampling grassland vegetation or delineating wetlands, and not visiting any of the Dos Pueblos Ranch, it is clear that SAIC botanists did not follow the survey guidelines of either the USFWS, CDFG, or CNPS. These guidelines specifically state that the project site should be surveyed multiple times to be considered adequate in conducting a floristic survey, and be able to detect special-status species. V.L. Holland did not provide specific dates of field surveys, but his team likely also only visited all areas of the Santa Barbara Ranch only once. URS did not survey all of the project site and never even bothered to prepare a checklist

[1] U.S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.

[2] California Department of Fish and Game (CDFG). 2000. Guidelines for Conducting and Reporting Botanical Inventories for Rare, Threatened, and Endangered Plants and Natural Communities. 9 December 1983, Revised 8 May 2000. State of California, The Resources Agency, Sacramento, California.

[3] California Native Plant Society (CNPS). 2001. Botanical Survey Guidelines. Board of Directors, Sacramento, California. See www.cnps.org for complete text of guidelines. First published in 9 December 1983, revised 2 June 2001.

of plants their botanists observed for the Alternative 1 Project site (or anywhere else they surveyed), one of the specific protocols identified by USFWS, CDFG, and CNPS.

Section 35-97.5 of the Local Coastal Plan requires, "A description of the flora and fauna which occupy the site or are occasionally found thereon, setting forth with detail those areas where unique plant and animal species or their habitats may be found on the site." For a description to be complete, lists of all the flora and fauna present onsite is required. This is very basic, and a foundation to any resource description. Just including short lists of dominant species of plant communities is not sufficient.

Reviewing the Holland and SAIC reports, and the biological resources section of the DEIR, RDEIR, and FEIR, it is clear that these minimum standards were not followed. V.L. Holland did not follow them. SAIC did not follow them entirely. URS did not follow them. The result is that the baseline conditions of the project site has never been adequately surveyed, according to formal guidelines, and the results have never been written according them either. To use such documents as the basis for an impact assessment destroys the validity of the arguments made in the EIR since the baseline conditions really are not known.

V.L. Holland Report Flaws:

Holland did not follow USFWS, CDFG, or CNPS standard botanical survey and documentation protocols, which had been published as long ago as 1983, and revised in 2000 and 2001, respectively. Holland failed to provide quantitative data about species dominance or percent cover of any species in his plant community descriptions of Santa Barbara Ranch (SBR). He did not survey Dos Pueblos Ranch (DPR); of course, he was not hired to, so while we fault the EIR we really can't fault him for that. Holland did not support suppositions about percent cover with any field measurements, as is standard protocol by vegetation ecologists.

Holland did not fully identify 20 species, representing 13 percent of the 154 species (taxa) he observed, which are listed in his Appendix 1. The fact that he apparently visited the Santa Barbara Ranch more than two times gave him an opportunity to collect specimens to secure a complete identification. Such a high percentage of unidentified taxa is not considered acceptable as meeting minimum professional standards; however, Holland considered his botanical study "preliminary" (1st sentence on page 26). He also included a caveat about the preliminary nature of his study in the second paragraph on page 5. I would agree with him that his study is only preliminary. Since Holland characterized his study as preliminary, the EIR consultant and County should have also treated it as such, which they did not do.

A floristic analysis of Holland's findings tell us that on average he found 0.31 plant taxa per acre (154 taxa/485 acres). A flora of only 154 taxa, a good number of which where planted, is a depauperate flora for a 485-acre site (SBR) dominated by natural vegetation in California, or even just Santa Barbara County. Besides the fact that SAIC came in later and found an additional 19 taxa without conducting a floristic survey, the thoroughness of Holland's botanical survey is seriously questioned. Remember, Holland called his study "preliminary". The problem is not so much with Holland's preliminary assessment report, but with URS basing so much of their impact assessment on it.

A comparison with other project sites nearby is in order to provide context to this evaluation. A floristic survey of Exxon's Santa Ynez Unit project in the late 1980s, a project site in Corral and Las Flores Canyons a few miles west of SBR measuring about 650 acres, had a flora of 246 vascular plant taxa, representing 0.51 taxa/acre. The 377-acre Bridle Ridge project (later called the Preserve @ San Marcos)

several miles to the east of SBR has a flora of 176 vascular plant taxa, representing 0.47 taxa/acre. The 94-acre UCSB Lagoon management area had 124 taxa, representing 1.32 taxa/acre. Based on just these few examples, more plant species would be expected on the SBR portion of the project site, and certainly many more species would be present on the larger DPR portion, which has never been surveyed according to agency and professional survey protocols.

I am confident that if I were allowed on the project site, and allowed to do a survey, I would easily find over 200 vascular plant taxa. However, such access has been denied to me and other biologists.

Holland did not provide any quantifiable information about the botanical resources, except for a simple vegetation map with only five plant communities mapped, some with subcategories. He did not map the vegetation according to methods adopted and used by the state and federal resource agencies.

While the Holland report provides a basic description of the SBR portion of the project, it cannot be considered, and he did not consider it, a complete botanical survey.

SAIC Report Flaws:

The SAIC report was focused on specific tasks, including evaluating the Holland report, analyzing the grasslands, delineating wetlands, and performing focused rare species surveys, but of only the SBR. SAIC only mapped 7 plant communities, two of which are not natural (planted orchard and trees), and did not follow the classification adopted by the CDFG, federal government, or CNPS, ignoring currently accepted standards.

Even though SAIC attempted to followed County methods[4] in evaluating grasslands, the sampling SAIC performed would not pass any statistical tests for validity, nor where their survey forms filled out completely, or do the numbers (% cover) always add up[5]. Different methods of sampling were conducted, and standard sampling protocols (currently accepted scientific standards) were not followed, nor where they conducted in all seasons when native grassland taxa would be detectable. For example, SAIC did not perform any quantitative measurements of the grasslands when it is dominated by the native wildflower, *Deinandra* [*Hemizonia*] *fasciculata*, a common grassland species, typically found on clay rich soils (Abrams 1917[6], Abrams & Ferris 1960[7], Beauchamp 1986[8], Flora of North America Committee 1993+[9], Hickman 1993[10], Hoover 1970[11], Munz 1974[12], Munz and Keck 1973[13], Roberts et al. 2004[14], Smith

[4] For clarification, the Santa Barbara County Thresholds Manual does not have any methods to be followed to sample grasslands to determine whether they would be considered native grassland. The only threshold the Manual has is that the grassland habitat must have at least 10% relative cover by grassland plant species. There are a number of scientific methods that could be used to measure this threshold.

[5] Based on review of SAIC's report by Julie Evens, CNPS Vegetation Ecologist, as provided in an email communication to David Magney dated 8 January 2008.

[6] Abrams, L. 1917. *Flora of Los Angeles and Region*. 10 April 1917. Stanford University Bookstore, Stanford, California.

[7] Abrams, L., and R.S. Ferris. 1960. *Illustrated Flora of the Pacific States*. Volumes I-IV. Stanford University Press, Stanford, California.

[8] Beauchamp, R.M. 1986. *A Flora of San Diego County, California*. Sweetwater River Press. National City, California.

[9] Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. 14+ vols. New York and Oxford. Vol. 1, 1993; vol. 2, 1993; vol. 3, 1997; vol. 4, 2003; vol. 5, 2005; vol. 19, 2006; vol. 20, 2006; vol. 21, 2006; vol. 22, 2000; vol. 23, 2002; vol. 25, 2003; vol. 26, 2002; vol. 27, 2007.

[10] Hickman, J., ed. 1993. *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley, California.

[11] Hoover, R.F. 1970. *The Vascular Plants of San Luis Obispo County, California*. University of California Press, Berkeley, California.

1998[15]) in the Sunflower family (Asteraceae). SAIC's Table 3 doesn't even mention this plant, indicating that it was not identifiable (based on the "Hemizonia sp. (?)" notation on the field data sheet[16]) in the early spring when they sampled their grassland transects. (Botanists knowledgeable about the Santa Barbara County flora would be reasonably confident that it would be *Deinandra fasciculata.*) If SAIC had done sampling during the early summer instead of early spring (14 April 2004), much more of the annual grasslands within the Coastal Zone would have been classified as Native Grassland according to County definitions.

Standard scientifically acceptable (statistically valid) sampling design generally requires at least 20 samples (Dytham 2003[17]), in this case transects or plots. SAIC only sampled along 11 transects. Dytham (2003[18]) states (on page 3) that when sampling two groups, an equal number of samples should be taken from both groups. This applies to SAIC's work since they were attempted to distinguish "non-native grasslands" from native perennial grasslands. However, SAIC violated scientifically and statistically sound sampling methods by not collecting data from each basic group, by not sampling the areas randomly (a basic tenant in statistical sampling), not having enough samples to truly be statistically representative, and not sampling in other seasons when a significant component of herbaceous grassland species are present.

Sampling should capture the entire range of conditions or variables. Sampling should capture each variable, in this case, a plant species, at least once. SAIC's sampling detected only 10 species (see SAIC's Table 3), missing most native grassland species. SAIC lists approximately 90 herbaceous plants that are often found, and associated with, grasslands. Yet, SAIC reported a maximum of 14 species on the relevé plots and didn't' bother to keep track of what species were detected along the 100-foot-long transects. Had these data been submitted to any peer-reviewed journal as supporting data they would have been rejected due to total lack of reliability and failure to follow scientific sampling methods. Since only 14 of the grassland species were documented as sampled, at least 76 grassland species were not detected in any of the transects. Sampling design should include enough transects to sample each taxon present at least once to ensure statistical validity.

Sampling plots/transects should be established randomly (Dytham 2003[19]). Or if they need to be stratified, randomness must be implemented at some point to avoid or minimize bias by the sampler. SAIC sampled the grasslands in an entirely biased manner, reducing the data they gathered to nearly useless, and certainly biased. Below is language from a Texas A & M University Galveston description of vegetation sampling methods.

> "The most common quantitative sampling methods are the quadrat method and the transect method. The quadrat method allows the user to define a fixed area, called a plot, within which plant characters

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[12] Munz, P.A. 1974. *A Flora of Southern California*. University of California Press, Berkeley, California.
[13] Munz, P.A., and D.D. Keck. 1973. *A California Flora and Supplement.* University of California Press, Berkeley, California.
[14] Roberts, F.M., Jr., S.D. White, A.C. Sanders, D.E. Bramlet, and S. Boyd. 2004. The Vascular Plants of Western Riverside County, California, An Annotated Checklist. F.M. Roberts Publications, San Luis Rey, California.
[15] Smith, C.F. 1998. *A Flora of the Santa Barbara Region, California*. Second Edition. Santa Barbara Botanic Garden & Capra Press, Santa Barbara, California.
[16] Page 3 of SAIC's Relevé sheet R1 in Appendix A of SAIC's 2005 report.
[17] Dytham, Calvin. 2003. *Choosing and Using Statistics: A Biologist's Guide*. Second Edition. Blackwell Science, Malden, Massachusetts.
[18] Ibid.
[19] Ibid.

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> can be measured. Usually, a rectangular quadrat frame, such as the one shown in Figure 1 (not included here), is used to define the sampling area, although a quadrat can also be a permanently established area within a site. Although the exact experimental design will determine where and how many samples are taken, the procedure always involves measuring plant characters of only those plants inside the quadrat. Quadrat sampling usually attempts to define plant community characteristics for an area much larger than the actual area sampled. For this reason, care must be taken to obtain samples that represent the entire habitat and that eliminate the human factor. Usually this means employing an experimental design that ensures random placement of the frame or permanent quadrat."[20]
>
> "Data collected in the field are usually subjected to some type of statistical analysis. Statistical methods range from simple to complex, with the exact method chosen depending on the objective of the study and the original experimental design."[21]

SAIC did not bother, apparently, to use any statistical tests to determine the validity of their sampling methods or hypotheses, as is standard in such studies, or at least it should be standard practice. DMEC presumes that SAIC hypothesized that native and nonnative grasslands could be distinguished/mapped onsite. They set about to find the native grasslands onsite by establishing sampling transects and plots in areas they believed contained native grassland species. This was their first bias. They further biased their sampling by not using any randomness in establishing plots or how they actually sampled, all of which are basic sampling protocols, that is, random sampling is vital to removing bias by the data gatherer (Dytham 2003[22]).

SAIC failed to use sample design protocols when determining the size of the relevé plots. First, SAIC should have assessed the plant community by walking/surveying it and making a list of all plants found. When they reached the plateau of the species-area curve, then they could determine the bounds (size) of the relevé plot(s). The species-area curve is a chart/graph that indicates the number of species found per unit area. A normal species-area curve will be very steep in the beginning, leveling off at a point when the survey area is so large that the area includes a majority of species occurring in that area, in this case, an area of grassland vegetation. Below is an example of a species-area curve taken from a Society for Ecological Restoration Management Notes website (Fibelibus and MacAller 1993[23]).

[20] Texas A&M University at Galveston webpage titled, "Scientific Methods for Studying Vegetation", http://www.tamug.edu/seacamp/virtual/methods.htm
[21] Ibid.
[22] Dytham, Calvin. 2003. *Choosing and Using Statistics: A Biologist's Guide*. Second Edition. Blackwell Science, Malden, Massachusetts.
[23] Fibelibus, M.W., and R.T.F. MacAller. 1993. Methods for Plant Sampling. Prepared for California Department of Transportation, Distict 11, San Diego, California. San Diego State University, Biology Department, San Diego, California. Published in Restoration in the Colorado Desert: Management Notes. Available at http://www.sci.sdsu.edu/SERG/techniques/mfps.html.

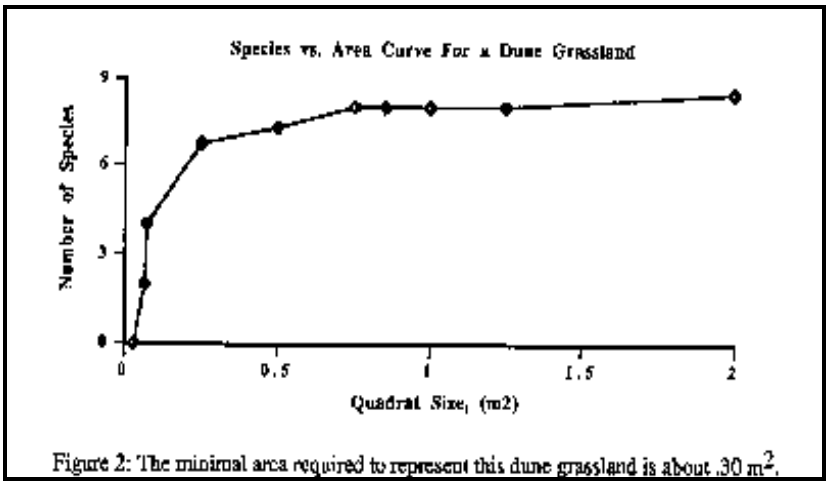


Figure 2: The minimal area required to represent this dune grassland is about .30 m^2.

This curve is used as a guide to determine the minimum size of the sampling plot to ensure that the sampling minimizes sampling bias, to make sure that the vast majority of species that make up the plant community actually get sampled. Had SAIC followed sampling design and methods as described by the Bureau of Land Management (1999[24]), the results would almost certainly have been accepted and show different results than has been presented.

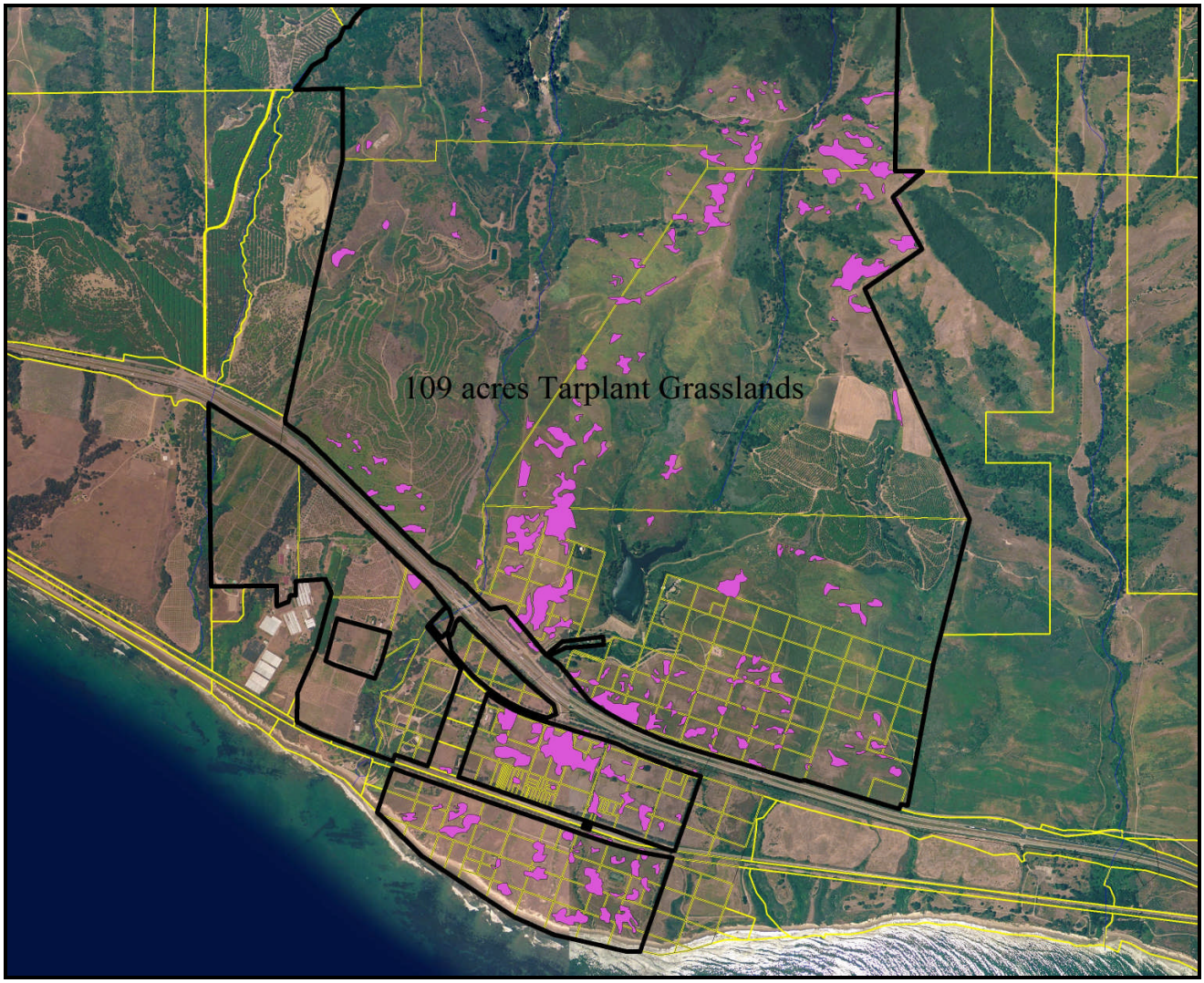
Back to the issue regarding the seasonality of the sampling, as can be seen in the photographs below, taken on June 17th, the "non-native" grasslands of SBR south of the RR tracks are clearly dominated by *Deinandra fasciculata*, with well over 10 percent cover over a large portion of the site. All the yellow visible in these photographs is *Deinandra fasciculata*, a common native grassland species.

Photo 7 in Holland's report shows *Deinandra fasciculata* [*Hemizonia fasciculata* in his report] dominating grassland, but incorrectly labels it as weedy. His Photo 3, taken in July, shows *Deinandra fasciculata* as a dominant plant in the grassland south of the RR tracks.

[24] Bureau of Land Management. 1999. Sampling Vegetation Attributes. (Interagency Technical Reference 1734-4.) Denver, Colorado. Available at http://www.blm.gov/nstc/library/techref.htm

Since the County's threshold for Native Grassland is at least 10 percent cover by native grassland species, of which *D. fasciculata* is, much of this habitat must be classified as Native Grassland, and since Native Grassland is considered ESHA in the LCP, it must be identified as such and protected from development.

Assertions by the County and URS that *Hemizonia fasciculata* is an invasive or weedy species including the September 11, 2008 memo from URS to Tom Figg are inaccurate and without any scientific support.



Since the County has been unwilling to require the EIR consultant to follow proper survey and mapping protocols to determine the extent of native grasslands within the project site, I used standard aerial photo interpretation methods to identify and map the native grassland detectable using aerial imagery[25]. Since the grassland species *Deinandra fasciculata* has such a clear and recognizable signature on, due to its extent,

[25] David Magney was trained in aerial photo interpretation through coursework at UCSB, Department of Geography, Remote Sensing Series, under Dr. Jack Estes, Dr. David Simmonett, and Dr. Earl Hajek, as part of Mr. Magney's B.A. degree work in Geography. Mr. Magney has been using remote sensing methods routinely since the 1980s. He also served as the U.S. Department of Justice's Expert Witness in a major wetlands violation case using aerial photo interpretation as part of his work on that case (U.S. EPA vs. Adam Bros et al.).

texture, and color, I was able to map areas where it is dominant. I used September 2000 aerial imagery obtained from AirPhotoUSA to map areas that were dominated by *Deinandra fasciculata*, based on its spectral signature, which is shown by the magenta-colored polygons (the yellow lines represent parcel boundaries obtained from the County). The mapping was performed using ESRI ArcView 3.3 GIS software, with the results shown on the aerial photograph/map below.

The results are illustrated above, which found approximately 109 acres of grassland habitat that is almost certainly dominated by the grassland species, with *Deinandra fasciculata* as the primary dominant native annual grassland species. This should NOT be construed as a map of all grasslands, or even native grasslands onsite. It is only a map showing the extent of herbaceous vegetation dominated by a common grassland forb, *Deinandra fasciculata*. If I had physical access to the entire project site, many additional acres would be mapped as dominated by *Deinandra fasciculata*; however, this assessment is based on what I was able to observe from the periphery so dominated in June 2008, and extrapolated onto the rest of the property using standard photo interpretation methods.

Though not needed to qualify the Coastal Terrace grassland as ESHA because much of this grassland area satisfies the County's definition of Native Grassland and ESHA (as well as the Coastal Commission's definition of ESHA), the value of this habitat to wildlife, in particular special-status species, is high. Sensitive species such the San Diego Black-tailed Jackrabbit, White-tailed Kite, Cooper's Hawk, Northern Harrier, the list goes on, all use these grassland habitats, which are surrounded by trees that are used for perching and roosting while foraging, see EIR Appendix C page C.2-23, which states, "the project area contains high quality foraging, roosting and nesting habitat for kites."

SAIC failed to properly characterize the true nature of the annual grasslands onsite by timing their field surveys when non-native Mediterranean grasses dominate, and when native wildflower species such as *Deinandra fasciculata* and *Eremocarpus setigerus* (another common summer-flowering native annual grassland species) have only barely germinated (CNPS 2008[26]). Had they performed their sampling in late May through July, more areas of grassland would have had more than 10 percent cover by native grassland species.

Bartolome et al. (2007[27]) compared grassland-sampling methods and determined that foliar cover sampling "results vary with season and weather, which can be misleading". This finding supports DMEC's contention that SAIC's sampling was flawed for the purposes of determining native grassland species dominance.

EIR Biology Section by URS flaws:

URS biologists failed to compile a list of plants they observed, relying entirely on the lists published by Holland and SAIC. They did not follow the above-mentioned survey and documentation protocols.

The County's Environmental Thresholds Manual, guidelines C.2.2 require the following questions be answered:

a. Is the habitat pristine or disturbed? How much or to what degree?

[26] California Native Plant Society letter to Santa Barbara County Board of Supervisors dated 25 August 2008 titled, "Review of Grassland Sampling/Vegetation in the Santa Barbara Ranch Revised DEIR (04EIR-00000-00014)".

[27] Bartolome, J.W., G.F. Hayes, and L.D. Ford. 2007. Monitoring California Grasslands for Native Perennial Grasses Workshop Handbook. 10 July 2007. ESNEER Coastal Training Program, Berkeley, California.

b. How biologically productive is it? Does it support an especially rich and diverse plant and/or wildlife population?
c. Is the habitat resource (including the surrounding area if it is related) large enough to be viable?

While URS attempted to answer these questions based on the information they had on hand, and from their preliminary survey of the DPR portion, they could not accurately answer them since they:

- lacked any quantitative, accurate data on the condition of the habitats,
- didn't have or didn't take any biological productivity measurements;
- did not perform any species diversity or richness studies or analysis; and
- did not attempt to determine, in any quantitative manner, the viability of existing habitats, before or after development.

URS concluded that special-status species were not present, other than the *Lonicera subspicata*, onsite; however, no floristic surveys were performed of the entire project site, and certainly not to standard survey protocols. It is for this reason that the conclusions in the EIR about special-status species are flawed.

To "cover" themselves for not performing the minimum level of floristic field surveys, URS is recommending as mitigation that further studies be performed just prior to grading activities. Besides being too late, it is illegal in CEQA to defer assessment to after certification of the EIR.

Focusing again on grasslands, John Larson of URS told Planning Commissioners at the 30 June 2008 public hearing that *Deinandra fasciculata* is a weed, stating that URS botanists, without providing names, would not include it in any grassland transect. He also referred to "David Magney's list" (included in my letter to the Planning Commission dated 23 January 2008), in an attempt to minimize the list I had previously compiled based on the work of vegetation ecologists, not just my own opinion. The list was complied from published studies and lists and unpublished data from the Santa Barbara region. Colleagues with more experience and expertise in grassland ecology, such as Dr. Elizabeth Painter, have also provided a list of herbaceous species from Santa Barbara County that are typically found in grasslands. Larson's statement to the Planning Commission is a severe twisting of the facts, and a misrepresentation of what I stated and what was written in V.L. Holland's 2003 report, which states on page 9,

"The hillsides of the northern half of the ranch are also covered by a form of disturbed grassland. However, this area has been so highly disturbed by various human activities, such as plowing and cultivation, that it is now dominated mostly by various weedy forbs typical of highly disturbed sites along the central coast".

Holland, in his list of common plants in the grassland and ruderal communities on page 11, labeled *Deinandra fasciculata* [*Hemizonia f.*] as a ruderal species. Mr. Larson, and maybe some unnamed URS botanist, took this to mean that *Deinandra fasciculata* is classified as a weed and not worthy of consideration as a native grassland species. Ruderal does NOT equal weed.

The definition of ruderal (Webster's New Collegiate Dictionary 1973) is, "where the natural vegetation cover has been disturbed by man". Because disturbed sites are often colonized by weeds, the term has sometimes misunderstood to mean that such "ruderal" sites contain only weeds. The definition of weed (Webster's again) is "a plant of no value and usually of rank growth; one that tends to overgrow or choke out more desirable plants". This is the same type of flawed logic that would label me as Hawaiian because I happen to be wearing a Hawaiian shirt. I am Caucasian and have only vacationed in Hawaii; neither fact

makes me Hawaiian, nor does the fact that *Deinandra fasciculata*, a native annual grassland species, a weed because it can grow in ruderal (human-disturbed) habitats.

Based on an Internet and literature search about the tarplant's weediness, almost nobody called this plant a weed. It is on the list of weeds only for the British Isles, where it is not native. It is a typical grassland species of coastal central and southern California usually growing in clayey soils[28], and can tolerate moderate to heavy grazing, or at least it occurs in grasslands that are moderately to heavily grazed, as well as grasslands that are not grazed. There remains no evidence – only unsupported statements – that would indicate tarplant is a weedy species and thus not a native grassland species. URS assertion that tarplant is "quite invasive" in its 9-11-08 memo to Tom Figg is not supported by any hard evidence. Fasciculed Tarplant is not on any list of invasive species for this region, including the Invasive Pest Plant Council's widely accepted list

Alternative 1B

The Planning Commission Staff Report, "Confirming Analysis Alternative 1B, Preliminary Draft Santa Barbara County, Santa Barbara Ranch Project, Final Environmental Impact Report, Analysis of Alternative 1B", undated (but apparently issued on 5 August 2008), basically states that all the information in the Draft and Final EIRs for the project provide sufficient information to preclude formal public circulation of this new project alternative.

Since the baseline information on the biological resources of the SBR, and even worse for the DPR, are entirely inadequate as shown in detail above and in previous comment letters on this project, it is impossible for the County Planning Commission staff to find that sufficient information about impacts associated with Alternative 1B is adequate. No vegetation sampling was performed anywhere on Dos Pueblos Ranch. No floristic or faunal surveys were performed on either ranch according to minimum professional standards or resource agency or CNPS guidelines/protocols. Nor was the vegetation mapped according to federally and state adopted protocols/classification. Therefore, it is not reasonable to assume or claim that sufficient data exist to adequately assess project-related impacts for this alternative.

Alternative 1B, as stated in Table 1 of the Staff Report, would result in the loss of 1.15 acres of Coast Live Oak Riparian Woodland, 0.89 acre of Coast Live Oak Woodland, 9.24 acres of Coastal Sage Scrub, 0.10 acre of Native Grassland, 229.32 acres of other grasslands, and 0.54 acre of Willow Riparian Scrub and Woodland. The Staff Report states that there is 593.25 acres of grasslands of various types onsite. Alternative 1B would result in impacts to around 39% of the grassland habitat onsite, assuming URS mapping everything correctly, which is doubtful since they failed to follow standard methodology regarding gathering baseline biological resources data. For grassland habitats alone, the Alt. 1B alternative would impact 35 acres more than the MOU project, which would impact 194 acres of grasslands.

Since grassland/herbaceous habitats have been shown by others in a variety of studies, some of which were cited (e.g. Cushman 2006[29], Davis et al. 1995[30], Jones & Stokes Associates 1989[31], Goleta 2006[32], Sutter

[28] See Abrams 1917, Abrams & Ferris 1960, Beauchamp 1986, Flora of North America Committee 1993+, Hickman 1993, Hoover 1970, Munz 1974, Munz and Keck 1973, Roberts et al. 2004, Smith 1998 listed above.

[29] Cushman, Samuel A. 2006. Effects of Habitat Loss and Fragmentation on Amphibians: A Review and Prospectus. *Biological Conservation* 128:231-240.

[30] Davis, F.W., P.A. Stine, D.M. Stoms, M.I. Borchert, and A.D. Hollander. 1995. Gap Analysis of the Actual Vegetation of California: 1. The Southwestern Region. *Madroño* 42(1):40-78.

County General Plan[33], Chadden et al. 2004[34]) in previous comment letters. Stromberg et al. 2007[35], states, "Grasslands are one of California's most important ecosystems in terms of both biodiversity and economic value", that grasslands, collectively, have high importance and value to many wildlife species, in particular foraging raptors, the loss of so many acres of grassland/herbaceous vegetation habitat would significantly impact wildlife onsite and in the region. However, this impact is not recognized as direct Significant and Unavoidable by the EIR preparers or County Staff[36], primarily because no adequate baseline condition studies were performed.

Furthermore, as stated in Section 9.4.4.1 of the FEIR, significant impact to biological resources are those that, "Substantially diminishes habitat for fish, wildlife, or plants". A reasonable person would conclude that the loss of 39% of a habitat type would represent a significant loss of that habitat.

One of the factors that the EIR fails ever to consider when evaluating the "value" of grasslands onsite are that, with proper management, habitats that are currently degraded for one reason or another can be restored, and that many habitats naturally restore themselves over time. The fact that the vast majority of the grassland habitats onsite, including those proposed to be impacted, where never adequately sampled, mapped, and/or evaluated for dominance by native grassland species or use by wildlife species. For example, no small mammal or reptile trapping was conducted onsite to determine species presence or to determine at any level the population sizes of the species present. This information is considered a basic requirement in some jurisdictions, such as Los Angeles County, for biological assessments in Sensitive Ecological Areas.

Those impacts that Alternative 1B are stated to be significant in the Staff Report rely on Mitigation Measures Bio 2a and 2b. Furthermore, this alternative would result in the loss of 35 more acres of grassland than the MOU project, so, when comparing the two project alternatives from the perspective of impacts to grasslands, the Alt 1B project has greater impacts.

Offsite Grasslands Not Addressed

Much attention has been paid to addressing grasslands on the project site; however, nothing has been said in the EIR about grasslands and other habitats adjacent to the site. The County Thresholds Manual requires assessing and mapping of grasslands onsite and on property adjacent to the project site. Native grassland habitat exists immediately west of Santa Barbara Ranch on the Makar property, but the FEIR omits analysis of indirect impacts to sensitive habitats occurring immediately adjacent to the project site. Assessment of offsite, adjacent habitats, was not done by URS or anyone else; this failure must be rectified.

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[31] Jones & Stokes Associates, Inc. 1989. Sliding Towards Extinction: Reassembling the Pieces. Sacramento, California. Commissioned by The Nature Conservancy, San Francisco, California.

[32] Goleta, City of. 2006. Goleta General Plan/Coastal Land Use Plan FEIR. September. Goleta, California. Prepared by Jones & Stokes Associates. Section 3.4.1.3, Page 3.4-8.

[33] Sutter County. General Plan Habitat Descriptions. Published at http://ceres.ca.gov/planning/genplan/sutter/natural8.html.

[34] Chadden, A., E. Dowksza, and L. Turner. 2004. Adaptive Management for Southern California Grasslands. May. Donald Bren School of Environmental Science and Management, University of California, Santa Barbara.

[35] Stromberg, M.R., J.D. Corbin, and C.M. D'Antonio. 2007. *California Grasslands, Ecology and Management.* December 2007. University of California Press, Berkeley, California.

[36] The FEIR does state that the loss of grasslands contributes to a cumulative loss of grasslands as a significant impact.

Even though the FEIR states this project will have a cumulative significant adverse impact on grasslands, there has been no quantitative assessment of the cumulative losses of grassland habitats in Santa Barbara County even though several projects have been approved in the recent past with grassland impacts quantified.

Lack of Adequate Mitigation Measures on Grassland

Impact Bio-1 on page 9.4-59 of the FEIR presents a bias against the value of grasslands by mischaracterizing habitat conditions by saying, "Approximately 559 acres of **disturbed** (emphasis added) "non-native grassland" occur within the Alternative 1 development area…". Not all 559 acres of grassland are disturbed, and the stated disturbance on most of the areas dominated by grassland vegetation is not supported by any substantial evidence, such as through vegetation sampling or careful/accurate habitat mapping. The functions and values of the herbaceous (grassland) habitats to wildlife have not been assessed. The loss of 229.32 acres - 39% percent of the grassland habitats onsite, particularly because of the quantity, must be considered significant for the direct project-specific losses as well as for the cumulative losses. The FEIR does recognize this impact as cumulatively significant; however, the FEIR does not provide measures that are available to minimize the loss of grassland habitats onsite.

Mitigation Bio-1a provides a nice list of grassland protection and revegetation objectives; however, this mitigation measure only requires a revegetation plan to be prepared with unstated success criteria. It also seriously underestimates the area needed for grassland restoration because the EIR fails to properly delineate native grasslands or identify the functions and values, and quantities of the grassland types onsite, as stated above. While DMEC generally agrees that restoration of disturbed habitats to better conditions has a relatively high probability of success, this mitigation measure is lacking in substance and specific success criteria, such as percent cover by native species, utilization by specific wildlife species, percent cover by species, species richness goals, to name a few.

Mitigation Bio-1b requires future field surveys, which should have been performed prior to issuance of the DEIR. If special-status species are found at one or more of the development envelopes, the feasibility of avoiding the species will be lost since the property owner will be able to successfully argue that they have spent thousands of dollars on building plans, all which will have already been approved by the County, and that it is not feasible to spend thousands more dollars on redesigning their home. It is extremely unlikely that the County would then require impact avoidance and thus likely the special-status species will be destroyed. Mitigating for the loss of many special-status species usually fails for a wide variety of reasons, one of which is the lack of adequate planning and mitigation design. This is what is proposed in the EIR mitigation measures and conditions of approval, and is doomed to failure. Studies commissioned by the CDFG (Fiedler 1991[37]), among others, have found that the vast majority of rare plant translocations required as mitigation have failed, from failures in any one of the numerous steps required for such an endeavor, including improper site selection, improper site preparation, improper handling of propagules, improper maintenance, etc. Any such mitigation must be very carefully designed, with each species specifically in mind, and very careful and detailed implementation, monitoring, maintenance, and contingency plans developed up front, not after the project has been approved. Lack of adequate funding has also been a common problem for this type of mitigation.

[37] Fiedler, P. 1991. Mitigation Related Transplantation, Translocation and Reintroduction Projects Involving Endangered and Threatened and Rare Plant Species in California. California Department of Fish and Game, Sacramento, California.

To be adequate as a mitigation measure, proper protocol field surveys should be conducted during the appropriate seasons, all occurrences of special-status species carefully mapped, and the project designed to avoid these species. If avoidance of all or some is not feasible, then specific mitigation for each taxon should be developed, identifying exactly where and how the species will be mitigated, not postponed to some future date without performance standards to ensure successful mitigation, and without a reasonable or feasible mitigation site or sites identified and secured prior to project approval.

Adequacy of Bio Conditions of Approval

Section III.B of the Planning Commission staff report, "Findings that Certain Unavoidable (Class I) Impacts of Alternative 1B are Mitigated to the Maximum Extent Feasible" is baseless and inaccurate. While DMEC agrees that Alternative 1B's impacts to biological resources are significant and unavoidable, much more can be done to avoid or minimize significant impacts and still meet project objectives. Not all feasible alternatives in the EIR or mitigation measures proposed were considered or evaluated to make such a finding.

Section III.C.3. Biological Resources, subsection a. Mitigation Measure Bio-1a, of the Planning Commission staff report states that an open space management plan must be prepared, and

> "Building footprints will be placed such that neither development envelopes, nor a 30-foot vegetation clearance distance around all structures affects native grassland habitat. Such placement of these footprints, along with the implementation of an OSHMP and development of a native grassland and vegetation restoration plan, will reduce impacts to native grassland to a less than significant level…"

It is not feasible or accurate for the Planning Commission to believe that native grasslands can be avoided with this condition if the actual extent and distribution of native grasslands are not known. DMEC has clearly demonstrated that the entire mapping and classification of grasslands for this project was fatally flawed and inaccurate, so the finding that impacts to native grasslands are mitigated to less than significant cannot be made without first mapping the grasslands properly. It will be too late in the permitting process to require significant relocation of houses, driveways, and utilities after all the plans have been finalized, and a biologist conducting construction monitoring determines that native grasslands are present in the development footprint. This impact can be avoided in advance, but only after the County requires a proper assessment, as described above and previously, of the grasslands onsite.

Section III.C.3. Biological Resources, subsection b. Mitigation Measure Bio-1b, states:

> "Within one year of the commencement of construction, a qualified biologist approved by Planning and Development (P&D) will survey development envelopes and other areas which may be disturbed by the construction of roadways or other improvements for special-status plant grassland species. Surveys must conform to guidelines published by, at the very least, the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), and the California Native Plant Society (CNPS), and survey methods must be approved by the County...".

This is what should have been done during the EIR process, not after the project has been approved. As previously stated, this is too late to be of any real value. It is basically saying that the mitigation requires further study, which is specifically prohibited by CEQA case law.

Section III.C.3. Biological Resources, subsection d. Mitigation Measure Bio-2b, states,

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> "A qualified biologist approved by P&D will survey development envelopes and vegetation thinning areas for special-status plants species located within coastal scrub areas. Surveys must conform to guidelines published by, at the very least, the CDFG, USFWS, and CNPS, and survey methods must be approved by the County."

Again, this is too late. These surveys should have been performed during the CEQA review process. Why were these surveys not required?

Section III.C.3. Biological Resources, subsection l. Mitigation Measure Bio-9b, states:

> "The Applicant will identify measures that can be taken by residents and public recreational users to avoid wildlife mortality. "

The Applicant will identify measures? This is the responsibility of the County, not the applicant. This is also deferring mitigation measures to some future date without performance standards to ensure impacts are mitigated. Deferring identification of measures without performance standards and does not provide the County decision-makers or the public any opportunity to consider the appropriateness or feasibility of the measures developed by the Applicant.

The findings and mitigation measures for this project are not adequate nor are they legal. They defer measures or studies to another time, do not fully mitigate the impact, or are infeasible. Some of the findings actually require as mitigation assessments that should have been done as part of the EIR review process; however, doing assessments does not mitigate impacts. The public and decision-makers need to know exactly what is being impacted by the project. Furthermore, it is not fair to the builders/property owners to have so much uncertainty imposed upon them after they have gone through a lengthy and costly environmental review process only to defer the assessments for bio resources to during construction.

Finding that Alt 1/1B is Environmentally Superior

The finding that Alternative 1/1B is environmentally superior is inaccurate at best. First, the basis for determining significance is flawed because the baseline assessment data were inadequate in incorrect. Second, the houses proposed could be/should be clustered to a much greater degree to avoid substantially more grassland habitat. Regardless of the number of houses to be built (within certain bounds), the environmentally superior alternative is the one that has the least quantitative adverse impacts on the environment. The location of the houses is of highest importance because it is the easiest factor to control to avoid sensitive resources. If the area of sensitive resources, say the amount of grassland habitat impacted, is used as a measure, then the alternative that minimized the loss of grassland habitat would be the superior alternative, at least for that issue. Clustering would be one means to reduce the area of impact, primarily by combining, potentially, the total area disturbed by infrastructure and fuel modification since more of those "impact areas" can be shared. A house built all by itself would have its own access road and its own fuel modification zone. Two houses of equal size build adjacent to each other would reduce the total impact for these two factors by up to 50 percent.

Alternative 5 clusters development and results in less than half of Alt. 1B's grassland impact. As stated in Section 11.6.2.3 of the FEIR, the Alternative 5 (Clustered Development Alternative) would have significantly lower impacts to biological resources, as well as most other issue areas. Alternative 5 is clearly superior, environmentally, than Alternative 1/1B.

No real analysis of how the Alt. 1 Project increases grassland impacts has been undertaken. As stated previously, the basic problem with the finding that Alt. 1B is environmentally superior to the MOU Project and other alternatives is that the baseline data on which all the alternatives are compared is seriously flawed. It is impossible to make a factual and reasonable finding about environmental superiority when the basis is fatally flawed.

The finding is flawed because we don't know really what:

- vegetation is present on the development lots,
- rare plants, much less non-rare plants are present,
- special-status wildlife species are present.

The finding is further flawed because Alt. 1 and 1B increase rather than decrease (a) the total acreage impacted, (b) the loss of grasslands, (c) the loss of habitat for special-status species, and (d) indirect impacts such as impacts from pets, non-native plants, pesticides, wildlife mortalities, lights, noise, runoff/water pollution, water consumption and wastewater generation.

Coastal Terrace of ESHA Regardless of Native Grassland Mapping

The herbaceous (grassland) plant communities/habitats on the coastal terrace have been demonstrated to support a wide range of wildlife and plants, including numerous special-status species. The White-tailed Kite is one such species that can be considered a keystone species. This fact provides strong evidence that grassland plant communities supporting kites should be considered as ESHA.

First, the grassland habitats, as habitat, are rare and declining in the coastal zone, particularly in southern California. Second, the grassland habitats on the coastal terrace support special-status wildlife species. Third, the grasslands occur as a mosaic of habitats with wetlands and scrub habitats that significantly increase the diversity and species richness of the coastal terrace. Development on the coastal terrace as proposed will significantly degrade these environmentally sensitive habitats. Regardless, since DMEC has clearly demonstrated, with evidence from Holland and DMEC mapping, much of the grasslands in the Coastal Zone are dominated by native grassland species and should be treated as such, including consideration of them as ESHA.

Coastal Act Section 30231 provides:

> "The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams."

Furthermore, the Coastal Act Section 30240 states:

> **"Section 30240(a).** Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas."

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> **"Section 30240(b).** Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

Based on these criteria, any natural habitat that satisfies the above-listed subsections of the Coastal Act should be considered ESHA. Most of the grasslands onsite meet these criteria and should be considered ESHA.

Coastal Act Section 30107.5 (SB Co. LCP Section 3.9.2) "Environmentally sensitive area" means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

This definition clearly includes grassland habitat (dominated by native grassland plant species or not) to include habitat that is used by special-status wildlife species such as the White-tailed Kite and others. This raptor (and several others) is known to forage onsite, and the loss or development of a large portion of its foraging habitat onsite would significantly disturb this sensitive and rare species. Other special-status species that use grassland habitats onsite would almost certainly be adversely affected by developing approximately 39% of the grasslands onsite, as proposed.

The County's Thresholds Manual finds that grasslands are rare in Santa Barbara County, and that native grasslands (grasslands with at least 10 percent cover by native grassland species) is a sensitive and important habitat type, ESHA.

Section C.3(2)(a) on page 37 of the County's Thresholds Manual states that impacts to habitats, including grasslands, that have high wildlife values, cannot be considered to be less than significant.

The grasslands onsite, particularly those south of US 101 represent important foraging habitat for White-tailed Kite and other bird and wildlife species, and much of it (specifically the area south of the RR tracks) are currently dominated, by more than 10 percent cover, by native grassland species. These facts qualify these grasslands as ESHA and the proposed development should be redesigned to avoid direct and indirect impacts to it.

The CDFG's CNDDB finds that Coastal Terrace Prairies such as the Naples Coastal Terrace grassland have a high global and state ranking for rarity. The Naples bluff grassland is a rare vegetation type, further qualifying the grassland as ESHA.

The FEIR makes a claim that grasslands are common (The EIR on page 9.4-72 says the Coastal Terrace grassland "including the project area, is the broadest and most contiguous section of coastal terrace remaining as open space south of Highway 101 along the Goleta-Gaviota coastline.") in Santa Barbara County and along the south coast. This is not supported by any facts or evidence. On the contrary, the vast majority of recent publications state that grassland habitat in California has been greatly reduced in area statewide, primarily as the result of conversion to agricultural crops and urban development. Statewide and regional habitat mapping, such as for the GAP Analysis, conducted by UCSB, considers grasslands a plant community at risk. Since grasslands typically occur on the flatter lands, they are the first to be built upon or farmed.

The proposed project (Alt 1B) would eliminate approximately 229 acres of grassland habitat, and more will be affected as the result of state-required fuel modification, which was not accurately calculated by

URS in the EIR. The EIR only evaluated the impact of a 30-foot wide fuel modification zone, which only represents the irrigated landscaped portion surrounding the houses. State law requires clearing flammable vegetation for 100 feet around houses and habitable structures[38]. Insurance companies often require a 300-foot clearance zone. Measuring impacts to habitat for only 30 feet is unsupportable and seriously underestimates the area of impact that would result. In the case of grassland habitat surrounding a home, if the land owner does not mow the vegetation to less than 4 inches high, the Santa Barbara County Fire Department WILL require removal of the vegetation to ground level, and cause it to be done, out to 100 feet. This understatement of impact from fuel modification is a serious and flagrant flaw in the impact assessment.

The direct impacts and indirect impacts of introducing pets, noise, roads, non-natives each can and do easily disturb or degrade grassland habitats, which are not adequately recognized or assessed in the EIR. The EIR should not underestimate the extent and level of impacts to plant communities and wildlife habitat by using flawed, unrealistic assumptions about how the fuel modification zone could be managed with minimal impact. Experience by fire departments throughout California have shown that subtleties of vegetation management are impractical to implement by fire department personal, who are not trained in plant ecology. Fire Department inspectors do not, and will not take the time to determine compliance to the law with sensitive fuel modification management. Rather, they will simply measure 100 feet from structures to determine if the grassland vegetation is mowed to less than 4 inches high or disced before June 1st, or the Fire Department will order it be done by a contractor. Such contractors do not bother with worrying about any sensitive biological resources, they will just mow or disc out to 100 feet from all structures, destroying or seriously diminishing much of the habitat functions remaining. Grassland habitats are seriously compromised by mowing and discing.

The California Coastal Commission, in its memo to Ventura Office staff from staff ecologist Dr. John Dixon, dated 25 March 2003, states, "…"California annual grassland" has been proposed to recognize the fact that non-native annual grasses should now be considered naturalized and a permanent feature of the California landscape and should be acknowledged as providing important ecological functions. These habitats support large populations of small mammals and provide essential foraging habitat for many species of birds of prey. California annual grassland generally consists of dominant invasive annual grasses that are primarily of Mediterranean origin."

This statement in the Coastal Commission memo is intended to provide specific and general guidance to Commission staff on how to evaluate whether a vegetation type satisfies ESHA criteria. The same arguments made by Dixon as to the importance and value of annual grassland habitats in the Santa Monica Mountains of coastal California apply to the Santa Barbara Ranch project. Due to the large expanse of grasslands onsite, in association with other adjacent habitats, and the use of the site by a large number of wildlife species, including special-status birds and wildlife, including raptors, it is actually difficult to prove that the majority of grasslands onsite south of US 101 do not meet ESHA criteria.

At a minimum, the grasslands dominated by native species, and this includes all areas containing 10 percent cover by *Deinandra fasciculata* and other native herbaceous plants, and easily-disturbed areas supporting rare wildlife species within the Coastal Zone should be considered ESHA, as they meet all the criteria for such in the Coastal Act and in the County's LCP.

[38] California Government Code Section 51182

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ID Incorrect, Mislabeled, Omitted, or Unsupported Responses to Comments

The FEIR's responses G-3-6 & 7 to my comments of 23 January 2008 states on page 15-321 & 322 that, "Comprehensive lists of vascular plants observed were included in the Holland and SAIC biological survey reports. The URS Corporation botanical field work on Dos Pueblos Ranch was focused on rare plant species which [sic] are identified in Tables 3.4-3 and 9.4-3 of the RDEIR. A list of non-sensitive species occurring was **not** [emphasis added] compiled." and "…such as list is not necessary…".

The fact that no floristic survey was ever conducted of the project site, and no list of species observed by URS is evidence that none of the botanists followed state and federal guidelines/protocols for conducting botanical surveys. These guidelines specifically state that complete checklists of all species observed should be included in supporting reports, such as the project EIR.

In a non-scientific poll survey, I asked approximately 70 botanists (including a few wildlife biologists) from California, mostly southern California, about the importance of including flora checklists in CEQA documents. The overwhelming majority opinion was clearly that surveys should be floristic in nature and that checklists of all taxa observed are a vital part of the results of field surveys and must be included in CEQA documents to ensure reliable impact analyses and results[39].

Response G-3-14 on page 15-324 of the FEIR states that the lack of any survey for special-status nonvascular plants was not required because no federal or state agency have designated as any likely to occur in Santa Barbara County or the project site. This is absurd. It is the EIR preparer's responsibility to determine which species are present onsite, and then determine whether project impacts to them would be significant. To ignore these valid taxa during the assessment surveys and in the EIR, and then defer surveys as mitigation does not meet the requirements of CEQA. In response to the response in the FEIR to my comment on this topic, I asked bryologist Carl B. Wishner[40] to provide an assessment of which nonvascular plants, in particular bryophytes, have potential to occur on the project site. His response is provided as an attachment to this letter. He concludes that at least one liverwort and two mosses have potential to occur onsite, as well as a few species of lichens (Wishner 2008[41]).

New discoveries of nonvascular plants are occurring annually (Pursell 1976[42], Shaw 2000[43], Zander 2001[44]). A recent floristic survey conducted by DMEC on a property in Hidden Valley, Ventura County, in early 2008 found 1 hornwort species, 4 liverwort species, and 27 moss species. Six rare mosses (*Ephemerum serratum, Phascum cuspidatum, Hennediella stanfordensis, Bryum torquescens, B.*

[39] Email questionnaire by David Magney and responses dated between 27 June and 4 August 2008, available for review on the CNPS Discussion Forum, http://cnps.org/forums/showthread.php?t=1247.

[40] Carl B. Wishner, Bryologist, is an approved biologist by the County of Santa Barbara, County of Los Angeles, and County of Ventura, and is one of only five botanists in California considered qualified to conduct bryophyte surveys for the U.S. Forest Service.

[41] Wishner, C. 2008. Potential Occurrence of Special Bryophytes and Lichens in Santa Barbara. Memo letter dated 7 October 2008 to David Magney. Chicago Park, California.

[42] Pursell, R.A. 1976. *Fissidens aphelotaxifolius* (Bryopsida; Fissidentaceae), a New Species from the Pacific Northwest of North America. *Bulletin of the Torrey Botanical Club* 103(1): 35-38.

[43] Shaw, A.J. 2000. *Schizymenium shevockii* (Bryaceae), a New Species of Moss From California, Based on Morphological and Molecular Evidence. *Systematic Botany* 25(2):188-196.

[44] Zander, R.H. 2001. A New Species of *Didymodon* (Musci) from California. *Madroño* 48(4):298-300.

subapiculatum, and *Bestia longipes*[45]) and one rare, undescribed lichen (*Placopyrenium* sp. nov.[46]) were found on one project site. These species were not "expected" to occur at the project site and if URS' approach where to be taken, their presence would never have been discovered and impacts to them would have gone unmitigated, possibly resulting in extinctions or at least extirpations from California. Wishner states that the *Ephemerum serratum* occurrence on the Hidden Valley site is the only known occurrence in the Southwest Floristic Bioregion in California[47].

None of the nonvascular plants found at the Hidden Valley site in Ventura County are on any state lists; however, they meet criteria for listing and would almost certainly be accepted when and if a petition/nomination was submitted. The fact that none of these nonvascular plants are on lists by the CNDDB, CNPS, and/or California Lichen Society is irrelevant. If they meet the criteria as special-status species, qualify for listing, or are considered to be rare by the experts, then they should be treated as such under CEQA. The Hidden Valley project is an excellent example of why URS should have surveyed the nonvascular plant flora of the project site. It is probable that at least one nonvascular plant species present onsite would be considered a special-status species. Of the bryophytes found on the Hidden Valley site, 19 percent are at least locally rare. This is good evidence that the probability that one or more rare bryophytes occur on the 3,200+-acre Santa Barbara Ranch/Dos Pueblos Ranch site is high.

Thank you for considering these comments on the project EIR. Do the entirely inadequate baseline data on biological resources of the project site, and the resulting seriously flawed impact assessment, DMEC strongly recommends that the inadequacies be remedied and the assessment redone, and a revised EIR be prepared before a decision on this project can be made.

Respectfully,

David L. Magney
President

cc: Brian Trautwein, Environmental Defense Center

Attachments: Letter from Carl Wishner to David Magney regarding potential for nonvascular plants occurring on the SBR/DPR.

[45] Wishner, Carl. 2008. Bryophyte Inventory – Ash Hidden Valley. Chicago Park, CA. Report submitted to David Magney Environmental Consulting, Ojai, CA

[46] Knudsen, Kerry, lichenologists, UC Riverside Herbarium, email regarding Ash Hidden Valley property undescribed lichen species, *Placopyrenium* sp. nov., dated 19 August 2008.

[47] Wishner, Carl. 2008. Bryophyte Inventory – Ash Hidden Valley. Chicago Park, California. Report submitted to David Magney Environmental Consulting, Ojai, California.