Calífornía Natíve Plant Society

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16 April 2002

Dennis Hawkins Ventura County Planning Department 800 South Victoria Avenue, L#1740 Ventura, CA 93008

#### Subject: Comments on Botanical Resources Section of Ahmanson Ranch Development DSEIR

Dear Mr. Hawkins:

The California Native Plant Society (CNPS) has reviewed the biological resources section of the Draft Supplemental Environmental Impact Report (DSEIR) of the Ahmanson Ranch Phase "A" Tract Map. Below please find specific comments on aspects of the DSEIR that we believe are inadequate or where conclusions and proposed mitigation measures are faulty, impractical, or not supported by the evidence or by sound science.

Our comments are organized generally according to resource issue, with page number citations where appropriate, to facilitate focused discussion on the issue addressed, or not addressed, in the DSEIR. CNPS also includes comments on wildlife, as wildlife species are a critical component of the natural vegetation. Without the wildlife species (including invertebrates, amphibians, reptiles, birds, and mammals), many plants would not survive, as they are dependent on wildlife for various functions during at least a part of their life cycles. Some plants depend on invertebrates for fertilization. Some plants depend on animals to disperse their propagules. Some plants indirectly benefit from activities of animals by the localized changes in the soil that the animals make, such as loosening the soil by digging or burrowing. An ecosystem cannot survive without all of its parts, and plants and wildlife depend upon each other directly or indirectly; therefore, CNPS has determined it necessary to expand its comments on projects, such as the Ahmanson Ranch development, to include wildlife.

## NONVASCULAR PLANTS NOT ASSESSED

Even though nonvascular plants (lichens and bryophytes [mosses and liverworts]) are important components of the biological resources and biodiversity of Ventura County and the Ahmanson Ranch project site, these resources were ignored completely in the DSEIR. Comments on both groups of nonvascular plants are provided in the following paragraphs.

#### No Assessment of Lichen Flora

Lichens are part of the botanical resources of the State of California, County of Ventura, and City of Simi Valley. A number of lichens are expected to occur at the project site, and some of them may be special-status species. Special-status lichen species are listed by the California Lichen Society<sup>1</sup> (CALS) and can

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<sup>&</sup>lt;sup>1</sup> Magney, D.L. 1999. Preliminary List of Rare California Lichens. *California Lichen Society Bulletin* 6(2):22-27.



be viewed on CALS's web page (*http://ucjeps.herb.berkeley.edu/rlmoe/cals.html* or directly to *http://128.32.109.44/red.html*). The CALS list is very conservative, and many more rare lichen species are likely present, and will be added to the rare lichen list in the future. The DSEIR failed to assess any impacts on lichens.

The DSEIR and supporting documents have failed to demonstrate that any field surveys for lichens have ever been conducted in the Ahmanson Ranch development project, much less special-status lichen species. An assessment of project-related impacts on the lichen flora, especially rare lichen taxa, must be conducted as part of the biological resources assessment of the project site. As part of that assessment, indirect impacts to the lichen flora, such as air pollution generation resulting from the project, must be evaluated in addition to direct impacts. Air pollution has caused the loss of lichens in many areas of Southern California, and elsewhere in the developed world. For example, Lace Lichen (*Ramalina menziesii*) was once common along San Antonio Creek in the Ojai Valley<sup>2</sup>; however, it has disappeared entirely from the Ojai Valley, likely the result of air pollution. It is entirely possible that Lace Lichen also occurs in the mesic canyons on the Coast Live Oak trees of the project site; however, no evidence has been presented regarding the presence or absence of any species of lichen in the project site.

Special-status lichens known to occur in Ventura County include:

- Caloplaca ignea
- Caloplaca subpyraceella
- Cladonia pulvinella
- Phaeophyscia kairamoi
- Phaeophyscia sciastra
- Protoparmelia badia
- Punctelia punctilla
- Toninia submexicana
- Vermilacinia acicularis
- Vermilacinia pumila
- Vermilacinia robusta
- Xanthoparmelia angustiphylla

Additional special-status lichen species may occur in Ventura County and at the project site; regardless, no conclusions on this can be made until field surveys for lichens at the Ahmanson Ranch are conducted. For example, two new California species of lichen (*Trapeliopsis californica* and *T. steppica*) were recently described (McCune et al. 2002<sup>3</sup>), with only three known populations in the state for *T. steppica* (one in southern California.

Lichens occupy many different habitats, including habitats not occupied by vascular plants. Habitat types likely occupied by lichens at Ahmanson Ranch include: rock (including boulders, bedrock, and cliff faces), soil, and bark (trunks, branches, and twigs of trees and shrubs). Each of these substrates provides habitat to a different sweet of lichen species, with zonation on each substrate based on aspect and exposure.

<sup>&</sup>lt;sup>2</sup> Fry, P. 1999. *The Ojai Valley: An Illustrated History*. Matilija Press, Ojai, California; Charis Bratt, lichenologist, Santa Barbara Botanic Garden, personal communication, April 2000 regarding *Ramalina menziesii* historic distribution in Ventura County.

<sup>&</sup>lt;sup>3</sup> McCune, B., F. Camacho, and J. Ponzetti. 2002. Three New Species of *Trapeliopsis* on Soil in Western North America. *The Bryologist* 105(1):78-85.

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Field surveys, floristic in nature, need to be conducted for all lichen species present onsite, and an assessment needs to be performed in order to determine if any of the lichens present onsite qualify as special-status species. If any special-status lichen species are found to be present, then feasible mitigation needs to be developed and adopted to compensate for the impacts. Simply preserving existing populations offsite is not sufficient mitigation for onsite project impacts. The EIR fails to meet these basic requirements of CEQA for the lichen flora, and is inadequate.

Project-related direct and indirect impacts on the lichen flora from air pollution need to be assessed in the EIR. Some species of lichens are known to be sensitive to air pollution, while others can be good indicators of airborne pollutants since they accumulate some pollutants in their tissues. *Ramalina menziesii* is a good example of a fruticose-type lichen that is highly sensitive to air pollution, which has been killed off from much of its former range in California where air pollution is concentrated.

The Ventura County Superior Court found an EIR prepared for the Camarillo Regional Park amphitheater and golf course proposal to be inadequate (CNPS vs Ventura County Board of Supervisors) in part for its failure to address project-related (direct and indirect) impacts to the lichen flora present at that site. The DSEIR should be revised to include a complete and proper assessment of the lichen flora of the project site and determine if project-related impacts are significant. Simply ignoring this resource is not acceptable under CEQA. One aspect of this case was the County's failure to assess air pollution impacts on the lichen flora.

#### No Assessment of Bryophyte Flora

Bryophytes (mosses and liverworts) are part of the flora; however, no surveys for bryophytes, much less special-status bryophyte species, were conducted for this project. CNPS maintains a list of rare and endangered bryophytes in its *Inventory of Rare and Endangered Plants of California* (CNPS 2001<sup>4</sup>). This should be consulted, and surveys of the bryophyte flora should be conducted to determine species richness; then a determination as to whether any special-status bryophytes occur onsite, and whether they will be adversely impacted by the proposed project. The DSEIR fails to meet these basic requirements of CEQA for the bryophyte flora, and is inadequate.

"Rockland", as described in the DSEIR, especially on the mesic north-facing slopes of them, is good habitat for bryophytes and lichens. Impacts to habitats supporting bryophytes would eliminate this biological resource; however, this component of the biological resources present at Ahmanson Ranch was never assessed.

Field surveys, floristic in nature, need to be conducted for all bryophyte species present onsite, and an assessment needs to be performed to determine if any of the bryophytes present onsite qualify as special-status species. If any special-status bryophyte species are found to be present, then feasible mitigation needs to be developed and adopted to compensate for the impacts. Simply preserving existing populations offsite is not sufficient mitigation for onsite project impacts. The EIR fails to meet these basic requirements of CEQA for the bryophyte flora, and is inadequate.

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<sup>&</sup>lt;sup>4</sup> California Native Plant Society. 2001. *Inventory of Rare and Endangered Plants of California*. Sixth edition. (Special Publication No. 1.) Rare Plant Scientific Advisory Committee, David Tibor, Convening Editor, Sacramento, California. September.



## SPECIES OF LOCAL CONCERN IGNORED

The DSEIR identified only thirty-three plant species of concern for the Ahmanson Ranch project in Table 4.6-3, apparently based solely on the California Natural Diversity Database (CNDDB) and the outdated fifth edition of the CNPS *Inventory of Rare and Endangered Vascular Plants of California*<sup>5</sup>. Apparently, no attempt was made to actually determine which of the vascular plant species present onsite are rare pursuant to CEQA, including locally rare or unique taxa, except for those tracked by the CNDDB) (listed in Table 4.6-3 of the DSEIR). The DSEIR does not adequately describe or define special-status species, which should have been assessed as part of the CEQA process.

There are several definitions and levels of rarity that apply, depending on the context in which they are used, or under which law they apply. Since the word "rare" has specific meaning under some laws and regulations, the term "special-status species" is preferred since it is all-inclusive and avoids confusion. The table below (Table 1, Definitions of Rarity for Plants) describes a number of types of rare species and the laws and regulations supporting them that should be used (or a similar version).

A number of lists or classes of rarity have been developed by various agencies and organizations, including The Nature Conservancy (TNC), California Department of Fish and Game (CDFG), and CNPS. CDFG operates the California Natural Diversity Database (CNDDB). The CNDDB Element Ranking system (CNDDB 2001<sup>6</sup>) provides a numeric global- and state-ranking system for all special-status species tracked by the CNDDB. The global-rank (G-rank) is a reflection of the overall condition of an element (species or natural community) throughout its global range. The state-rank (S-rank) is assigned much the same way as the G-rank, except the S-ranks in California often also contain a threat designation attached to the S-rank.

The G1/S1 rank includes all taxa with "Less than 6 viable elements occurrences (populations for species) OR less than 1,000 individuals OR less than 2,000 acres". The G2 rank includes all taxa with "6 to 20 element occurrences OR 2,000 to 10,000 acres", and the S2 rank includes all taxa with, "6 to 20 element occurrences OR 3,000 individuals OR 2,000 to 10,000 acres".

<sup>&</sup>lt;sup>5</sup> Skinner, M.W. and B.M. Pavlik. 1994. *Inventory of Rare and Endangered Vascular Plants of California*. Fifth edition. (Special Publication No. 1.) California Native Plant Society, Sacramento, California.

<sup>&</sup>lt;sup>6</sup> California Natural Diversity Database. 2001. Special Plants List. (Quarterly publication, mimeo.) California Department of Fish and Game, Natural Heritage Division, Sacramento, California. July.

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#### Table 1. Definitions of Rarity for Plants

#### **Basic Categories of Rarity:**

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

#### **Rare Plants in These Categories Include:**

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
- Plants that are Category 1 or 2 (species of special concern) candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (64 CFR 205, pages 57533-57547, 25 October 1999).
- Plants that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines*, 14 CCR Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS *Inventory* [CNPS 2001<sup>7</sup>]).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS *Inventory* [CNPS 2001]).
- Plants listed by the California Lichen Society as rare in California (Magney 1999<sup>8</sup>).
- Plants listed or proposed for listing by the State of California as Threatened or Endangered under the California Endangered Species Act (14 CCR 670.2).
- Plants listed under the California Native Plant Protection Act (14 CCR 670.2.).
- Plants considered sensitive by other Federal agencies (i.e. U.S. Forest Service, Bureau of Land Management) or state and local agencies or jurisdictions.
- Plants listed and tracked by the California Natural Diversity Database (CNDDB 2001<sup>9</sup>).
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (*State CEQA Guidelines*, Appendix G).

#### **Special-Status Vascular Plants**

Approximately 985 plant taxa within Ventura County, which includes the Simi Hills and the project site, are considered rare, at least locally<sup>10</sup>, based on the definitions and criteria described above. Table 2 (below), Rare Plants of Santa Monica Mountains & Simi Hills, which is based on the floristic research of the author on behalf of CNPS Rare Plant Program, lists 210 plant taxa that are considered at least locally rare. Forty-three (43) of the rare taxa in Table 2 are also included in CNPS's *Inventory of Rare and Endangered Plants of California*<sup>11</sup>. Of the 210 rare taxa listed in Table 2, 199 plant taxa have known occurrences in Ventura County, are known from the regional vicinity of the project site, and have a sensitive status of at least locally rare for Ventura County. The remaining 11 rare taxa are reported in the project EIRs (Table 4.6-4 of the 1992 EIR and/or Table 4.6-3 of the 2002 DSEIR) as occurring in the vicinity of the project site, but have no known occurrences in Ventura County.

<sup>&</sup>lt;sup>7</sup> California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California. Sixth edition. (Special Publication No. 1.) Rare Plant Scientific Advisory Committee, David Tibor, Convening Editor, Sacramento, California. September.

<sup>&</sup>lt;sup>8</sup> Magney, D.L. 1999. Preliminary List of Rare California Lichens. *California Lichen Society Bulletin* 6(2):22-27.

<sup>&</sup>lt;sup>9</sup> CNDDB. 2001. Special Plants List. See earlier footnote.

<sup>&</sup>lt;sup>10</sup> Magney, D.L. 2002. Checklist of Ventura County Rare Plants. 29 March 2002. California Native Plant Society, Channel Islands Chapter, Ojai, California. See *www.cnps.com* for this document, which was first posted in June 2001.

<sup>&</sup>lt;sup>11</sup> CNPS. 2001. Inventory of Rare and Endangered Plants of California. See earlier footnote for complete citation.



#### Table 2. Rare Plants of Santa Monica Mountains & Simi Hills, Ventura County

Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>		
			ENVICOM 1989	FEIR 1992	SEIR 2002
Allium haemaetochiton S. Watson	Red-skinned Onion	PH; rare			
Allium peninsulare Lemmon var. peninsulare	Peninsular Onion	PH; rare			
Allophyllum glutinosum (Bentham) A.D. Grant & V. Grant	Sticky Allophyllum	AH; rare	0		
Amsinckia menziesii (Lehm.) Nels.& Macbr. var. menziesii	Common Fiddleneck	AH; uncommon	0		
Amsinckia tessellata A. Gray var. tessellata	Devil's Lettuce	AH; rare			
Antirrhinum kelloggii E. Greene	Kellogg Snapdragon	AV; uncommon			
Arabis glabra (L.) Bentham var. glabra	Tower Mustard	BH; rare			
Aspidotis californica (Hooker) Nuttall ex Copeland	California Lace Fern	PF; rare			
Asplenium vespertinum Maxon	Western Spleenwort	PF; CNPS 4			
Astragalus brauntonii Parish	Braunton Milkvetch	PH; Fed. Endangered		R	R
Astragalus gambelianus E. Sheldon	Dwarf Locoweed	AH; rare			
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> (Rydb.) Munz	Ventura Marsh Milkvetch	PH; CA/Fed. Endangered			R
Astragalus trichopodus (Nutt.) A.Gray var. trichopodus	Three-pod Milkvetch	PH; rare			
Atriplex argentea var. mohavensis M.E. Jones	Mojave Silverscale	AH; rare			
Atriplex californica Moq.	California Saltbush	S; uncommon			
Atriplex coulteri (Moq.) D. Dietr.	Coulter's Saltbush	PH; CNPS 1B			R*
Atriplex lentiformis (Torrey) S. Watson ssp. lentiformis	Big Saltbush	S; rare			
Atriplex parishii S. Watson	Parish Brittlescale	AH; CNPS 1B			R*
Azolla filiculoides Lam.	Duckweed Fern	AF; uncommon			
Baccharis malibuensis Beauchamp & Hendrickson	Malibu Baccharis	S; CNPS 1B			R*
Barbarea orthoceras Ledeb.	American Wintercress	BH; rare			
Berberis nevinii A. Gray	Nevin's Barberry	S; CA/Fed. Endangered			R
Berula erecta (Huds.) Coville	Cutleaf Water-parsnip	PH; rare			
Bothriochloa barbinodis (Lagasca) Herter	Cane Bluestem	PG; rare			
Boykinia occidentalis Torrey & A. Gray	Santa Lucia Brookfoam	PH; rare			

<sup>&</sup>lt;sup>12</sup> Scientific name: the complete scientific name is provided for each taxon and consists of the genus, species, and author (person who formally described and named the plant).

<sup>&</sup>lt;sup>13</sup> Common names are provided for all plants. Some plants have more than one common name while others share common names with other taxa. Many plants lack vernacular names, for which the author has invented names for the sake of completeness. It is preferred to use the scientific name for plants in all legal documents to ensure that the reader knows exactly what taxon is being referred to.

<sup>&</sup>lt;sup>14</sup> Growth Form definitions: AF = annual fern or fern ally; AG = annual grass; AH = annual herb; AV = annual vine; BH = biennial herb; PF = perennial fern; PG = perennial grass; PH = perennial herb; PV = perennial vine; S = shrub; T = tree.

<sup>&</sup>lt;sup>15</sup> Rarity Definitions: rare = rare throughout Ventura County (with six or fewer occurrences); uncommon = rarely encountered, but more common than rare, and has more that six but less than 11 occurrences in Ventura County. Those plants listed by CNPS in its *Inventory of Rare and Endangered Plants of California* are also included here even though more than 10 occurrences are known in Ventura County. Fed. = Federally; CA = California; FSC = Federal Species of Concern.

 <sup>&</sup>lt;sup>16</sup> O = rare plant taxa observed during field surveys; R = plant taxa reported in the EIR's as "occurring in the vicinity of Ahmanson Ranch".
 \* = plant species that were reported as occurring in the vicinity of the project site, but that have no known occurrences in Ventura County.



Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>			
			ENVICOM 1989	FEIR 1992	SEIR 2002	
Brickellia nevinii A. Gray	Nevin Brickellbush	S; CNPS 4				
Calochortus albus Benth.	Fairy Lantern	PH; uncommon				
Calochortus catalinae S. Watson	Catalina Mariposa Lily	PH; CNPS 4	0			
Calochortus clavatus S. Watson ssp. clavatus	Club-haired Mariposa Lily	PH; CNPS 4				
Calochortus clavatus ssp. gracilis Ownbey	Club-haired Mariposa Lily	PH; CNPS 1B			R*	
Calochortus clavatus ssp. pallidus (Hoover) Munz	Pale Yellow Mariposa Lily	PH; rare				
Calochortus plummerae E. Greene	Plummer Mariposa Lily	PH; CNPS 1B	0		0	
Calystegia macrostegia (E. Greene) Brummitt ssp. macrostegia	Morning-glory	PV; rare	0			
Calystegia personii (Abrams) Brummitt	Person's Morning-glory	PV; CNPS 4			R*	
Camissonia californica (Torrey & A. Gray) Raven	Mustard Primrose	AH; rare	0			
Camissonia micrantha (Sprengel) Raven	Tiny Primrose	AH; rare	0			
<i>Cardamine californica</i> (T. & G.) E. Greene var. <i>californica</i>	California Milkmaids	AH; rare				
Cardionema ramosissimum (Weinm.) A. Nels. & J.F. Macbr.	Sand Mat	PH; rare			2	
Castilleja minor ssp. spiralis (Jepson) Chuang & Heckard	Large-flowered Annual Paintbrush	AH; rare				
<i>Centromadia</i> [ <i>Hemizonia</i> ] <i>parryi</i> (E. Greene) E. Greene ssp. <i>australis</i> (Keck) B.G. Baldwin	Southern Tarplant	AH; FSC/CNPS 1B			R*	
Chaenactis artemisiifolia (A. Gray) A. Gray	White Pincushion.	AH; rare	0			
<i>Cheilanthes covillei</i> Maxon	Coville Lip-fern	PF; uncommon		<b>Ö</b> mminin (1997)	200000000000000000000000000000000000000	
Cheilanthes newberryi (D.C. Eaton) Domin	Cotton Fern	PF; rare				
Chenopodium berlandieri Moq.	Pitseed Goosefoot	AH; rare			2	
Chenopodium californicum (S. Watson) S. Watson	Soap Plant	PH; uncommon				
Chorizanthe parryi var. fernandina (S. Watson) Jepson	San Fernando Valley Spineflower	AH; CA Endangered		R	0	
Chorizanthe parryi S. Watson var. parryi	Parry's Spineflower	AH; CNPS 3		å	R*	
Chorizanthe procumbens Nuttall	Prostrate Spineflower	AH; CNPS 4				
Clarkia epilobioides (Nutt.) A. Nels. & J.F. Macbr.	Willow-herb Godetia	AH; rare				
Collinsia heterophylla Buist var. heterophylla	Chinese Houses	AH; uncommon	0	4	1	
<i>Comarostaphylis diversifolia</i> (C. Parry) E. Greene ssp. <i>diversifolia</i>	Summer Holly	S; CNPS 1B				
<i>Comarostaphylis diversifolia</i> ssp. <i>planifolia</i> (Jepson) G.D. Wallace	Simpleleaf Summer Holly	S; rare				
Cordylanthus maritimus Bentham ssp. maritimus	Saltmarsh Bird's-Beak	AH; CA/Fed Endangered		Ì	R	
Cordylanthus rigidus ssp. setiferus Chuang & Heckard	Dark-tipped Rigid Bird's-Beak	AH; rare	0			
Coreopsis bigelovii (A. Gray) H.M. Hall	Bigelow Coreopsis	AH; uncommon	0	0		
Cryptantha clevelandii E. Greene	Cleveland Forget-me-not	AH; uncommon				
Cuscuta subinclusa Durand & Hilg.	Canyon Dodder	AV; rare	0			
Cyperus erythrorhizos Muhlenb.	Red-root Flatsedge	AH; rare				
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i> (Greene) Lewis & Epling	Dune Larkspur	PH; CNPS 1B			R	



Dicentra ochroleuca Engelm       White Eardrops       PH; rare       Image: CNPS 4         Dichodra occidentalis House       Western Dichondra       PH; CNPS 4       Image: CNPS 4         Districhtis spicata (L.) E. Greene       Saltgrass       PG; uncommon       O       Image: CNPS 4         Dedecahema leptoceras (A. Gray) Rev. & Hardham       Stender-horned Spineflower       AH; CAFed Endangered       R*         Dadecahema leptoceras (A. Gray) Rev. & Hardham       Stender-horned Spineflower       PH; CA Treatened       R         Dadecahema leptoceras (A. Gray) Rev. & Hardham       Stender-horned Spineflower       PH; CA Rae / Fed.       R         Dadegu compostas (Haw) Moran sp. blochmanice       Blochman Live-forever       PH; CA Rae / Fed.       R         Dualleya comosa sep. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; CA Rae / Fed.       R         Dualleya comosa sep. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; CA Rae / Fed.       R         Dualleya comosa sep. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; CA Rae / Fed.       R         Dualleya consos sep. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; Fed. Threatened       R         Dualleya consos sep. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; Fed. Threatened       R<	Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>		
Dicentra ochroleuca Engelm.       White Eardrops       PH, rare       Image: CNPS 4         Dichondra occidentals House       Western Dichondra       PH; CNPS 4       Image: CNPS 4         Distichlis spicata (L.) E. Greene       Saltgrass       PG; uncommon       O       R*         Didecadenua leptocerses (A. Gray) Rev. & Hardham       Slender-horned Spineflower       AH; CATed Findangered       R*         Dadecatheon clevelandi spp. sanctarum (F: Greene)       Ohrmans       Cleveland Shooting Star       PH; rare       Image: CNPS 1B       R         Dadleya useptitosa (Haw) Moran ssp. hlochmanice       Blochman Live-forever       PH; CNPS 1B       R       R         Dualleya computes asp. marcescens Moran       Marcescent Live-forever       Threatened       R       R         Dualleya crimosa ssp. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; CA Nar / Fed.       R       R         Dualleya crimosa ssp. ovatifolia (Britton) Moran       Santa Monica Mins. Live-forever       PH; rare       Image: CNP and and and and and Marcescent PH; rare       Image: CNP and and and and and and Marcescent PH; rare       Image: CNP and						SEIR 2002
Dickondra occidentalis House     Western Dickondra     PH; CNPS 4     Image: Construction of the second state of the secon	Descurainia pinnata ssp. menziesii (DC.) Detl.	Menzies Tansy Mustard	AH; rare	0		
Distriction     Salignass     PG; uncommon     O     Image: space s	Dicentra ochroleuca Engelm.	White Eardrops	PH; rare			
Dithyrean maritima (A. Davidson) Davidson       Beach Spectaclepod       PI; CA Threatened       R*         Dodecathena leptocerus (A. Gray) Rev. & Hardham       Slender-horned Spinellower       AH; CA/Fed Endangered       R*         Dodecatheon clevelandii spp. sanctarum (E. Greene)       Cleveland Shooting Star       PH; rare       R         Dualleya tabcehmanae (Eastw) Moran sp. blochmaniae       Blochman Live-forever       PH; CA Rare / Fed.       R         Dualleya caseptiosa (Haw) Britt, & Rose       Sea Lettuce       PH; CA Rare / Fed.       R         Dualleya cymosa spp. marcescens Moran       Marcescent Live-forever       PH; CA Rare / Fed.       R         Dualleya cymosa spp. oxtifolia (Britton) Moran       Santa Monica Mms. Live-forever       PH; Fed. Threatened       R         Dualleya grunea Kose & Davidson (Dualeya abransii)       Rose spp. arar (Rose & Davidson (Dualeya abransii)       Rose spp. arar (Rose & Davidson (Dualeya abransii)       Res esp. parar (Rose & Davidson (Davidson a	Dichondra occidentalis House	Western Dichondra	PH; CNPS 4			
Dithyrean maritima (A. Davidson) Davidson       Beach Spectaclepod       PI; CA Threatened       R*         Dodecathena leptocerus (A. Gray) Rev. & Hardham       Slender-horned Spinellower       AH; CA/Fed Endangered       R*         Dodecatheon clevelandii spp. sanctarum (E. Greene)       Cleveland Shooting Star       PH; rare       R         Dualleya tabcehmanae (Eastw) Moran sp. blochmaniae       Blochman Live-forever       PH; CA Rare / Fed.       R         Dualleya caseptiosa (Haw) Britt, & Rose       Sea Lettuce       PH; CA Rare / Fed.       R         Dualleya cymosa spp. marcescens Moran       Marcescent Live-forever       PH; CA Rare / Fed.       R         Dualleya cymosa spp. oxtifolia (Britton) Moran       Santa Monica Mms. Live-forever       PH; Fed. Threatened       R         Dualleya grunea Kose & Davidson (Dualeya abransii)       Rose spp. arar (Rose & Davidson (Dualeya abransii)       Rose spp. arar (Rose & Davidson (Dualeya abransii)       Res esp. parar (Rose & Davidson (Davidson a	Distichlis spicata (L.) E. Greene	Saltgrass	PG; uncommon	0	<b>\$</b>	<b>5</b>
Dodecachema leptoceras (A. Gray) Rev. & Hardham       Stender-homed Spineflower       AH; CA/Fed Endangered       R*         Dodecacheon clevelandii spp. sanctarum (E. Greene)       Cleveland Shooting Star       PH; rare       R         Dudleya blochmanae (Fastw.) Moran ssp. blochmaniae       Blochman Live-forever       PH; CNPS 1B       R         Dudleya caespitosa (Haw.) Britt. & Rose       Sea Lettuce       PH; CA Rare / Fed.       R         Dudleya cymosa ssp. marcescens Moran       Marcescent Live-forever       PH; Fed. Threatened       R         Dudleya cymosa ssp. oratifolia (Britton) Moran       Santa Monica Mtns. Live-forever       PH; CA Rare / Fed.       R         Dudleya drinosa (Lindey) Britt. & Rose       Farinose Live-forever       PH; CNPS 1B       R       R         Dudleya drinosa (Lindey) Britt. & Rose       Farinose Live-forever       PH; CA Rare / Fed.       R       R         Dudleya undirecutis (Rose) Moran       Conejo Live-forever       PH; Fed. Threatened       R       R         Dudleya undruchentas sp. parva (Rose & Davids.) J. Bartel]       Conejo Live-forever       PH; Fare       Dudleya undruchentas sp. arzonica (Rose) Moran       Conejo Live-forever       PH; Fed. Threatened       R         Eucocharis macrostachya Dritton       Comono Spike-rush       PH; rare       D       D         Eurostis macrostachya Britton		Beach Spectaclepod				R*
Dodecatheon clevelandii spp. sanctarum (E. Greene)       Cleveland Shooting Star       PII; rare       Image State S						R*
Dudleya biochmanae (Eastw.) Moran ssp. blochmaniae       Biochman Live-forever       PH; CNPS IB       R         Dudleya caespitosa (Haw.) Britt. & Rose       Sea Lettuce       PH; CA Rare / Fed.       R         Dudleya cymosa ssp. marcescens Moran       Marcescent Live-forever       Threatened       R         Dudleya cymosa ssp. ovatifolia (Britton) Moran       Santa Monica Mtns. Live-forever       PH; CA Rare / Fed.       R         Dudleya cymosa (Lindley) Britt. & Rose       Farinose Live-forever       PH; rare       R         Dudleya cymosa (skoe) Moran       Many-stermined Dudleya       PH; CNPS IB       R       R         Dudleya parva Rose & Davidson [Dudleya abransii       R       R       R       R         Dudleya pulverulenta ssp. arizonica (Rose) Moran       Conejo Live-forever       PH; Fed. Threatened       R       R         Dudleya pulverulenta ssp. arizonica (Rose) Moran       Conejo Live-forever       PH; rare       C       R         Dudleya avertyi N. Nakai       Verity Live-forever       PH; rare       C       R         Eleocharis macrostachya Britton       Common Spike-rush       PH; rare       C       R         Eleocharis macrostachya Britton       Common Spike-rush       PH; rare       C       C         Ericameria pinfinum (Eastwood) H. Mason       Saphire Woolly Star	Dodecatheon clevelandii spp. sanctarum (E. Greene)	•••••••••••••••••••••••••••••••••••••••				
Dudleya cymosa ssp. marcescens Moran       Marcescent Live-forever       PH; CA Rare / Fed.       R         Dudleya cymosa ssp. ovatifola (Britton) Moran       Santa Monica Mtns. Live-forever       PH; Fed. Threatened       R         Dudleya farinosa (Lindley) Brit. & Rose       Farinose Live-forever       PH; rare       R         Dudleya farinosa (Lindley) Brit. & Rose       Farinose Live-forever       PH; rare       R       R         Dudleya parva Rose & Davidson [Dudleya abransii       Conejo Live-forever       PH; Fed. Threatened       R       R         Dudleya verityi N. Nakai       Verity Live-forever       PH; rare        R         Dudleya verityi N. Nakai       Verity Live-forever       PH; rare        R         Eleocharis macrostachya Britton       Common Spike-rush       PH; rare           Ergloblum brachycarpum C. Presl       Panicled Willow-herb       AH; rare       O          Eragrostis mexicana va: virescens (C. Presl) Koch & Spihre Woolly Star       AH; rare       O           Ericameria palmeri va: pac/typeips (HLM. Hall) Neson       Spihre Woolly Star       AH; rare       O           Ericameria palmeri va: pac/typeips (HLM. Hall) Neson       Pine Goldenbush       S; rare       O	Dudleya blochmanae (Eastw.) Moran ssp. blochmaniae	Blochman Live-forever	PH; CNPS 1B			R
Dudleya cymosa ssp. marcescens MoranMarcescent Live-foreverInreatenedImage: Stress St	Dudleya caespitosa (Haw.) Britt. & Rose	Sea Lettuce	PH; rare			
Dudleya farinosa (Lindley) Britt. & Rose       Farinose Live-forever       PH; rare       Image: CNPS 1B       R       R         Dudleya parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; CNPS 1B       R       R         Rose ssp. parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; Fed. Threatened       R       R         Boudleya parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; Fed. Threatened       R       R         Dudleya verityi N. Nakai       Verity Live-forever       PH; Fed. Threatened       R       R         Dudleya verityi N. Nakai       Verity Live-forever       PH; Fed. Threatened       R       R         Eleocharis macrostachya Britton       Common Spike-rush       PH; rare       Image: Common Spike-rush       PG: Common Spike-rush	Dudleya cymosa ssp. marcescens Moran	Marcescent Live-forever				R
Dudleya farinosa (Lindley) Britt. & Rose       Farinose Live-forever       PH; rare       Image: CNPS 1B       R       R         Dudleya parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; CNPS 1B       R       R         Rose ssp. parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; Fed. Threatened       R       R         Boudleya parva Rose & Davidson [Dudleya abramsii       Conejo Live-forever       PH; Fed. Threatened       R       R         Dudleya verityi N. Nakai       Verity Live-forever       PH; Fed. Threatened       R       R         Dudleya verityi N. Nakai       Verity Live-forever       PH; Fed. Threatened       R       R         Eleocharis macrostachya Britton       Common Spike-rush       PH; rare       Image: Common Spike-rush       PG: Common Spike-rush	Dudleva cymosa ssp. ovatifolia (Britton) Moran	Santa Monica Mtns. Live-forever	PH; Fed. Threatened			R
Dudleya multicaulis (Rose) MoranMany-stemmed DudleyaPH; CNPS 1BRRRDudleya parva Rose & Davidson [Dudleya abramsii Rose ses, parva (Rose & Davids, J. Bartel]Conejo Live-foreverPH, Fed. ThreatenedRRRDudleya pulverulenta ses, arizonca (Rose) MoranChalky Live-foreverPH; Fed. ThreatenedRRRDudleya veriyi N. NakaiVerity Live-foreverPH; Fed. ThreatenedRRREleocharis macrostachya BrittonCommon Spike-rushPH; rareCCCEragrostis mexicana var. virescens (C. Presl)Panicled Willow-herbAH; rareCCCEriastrum sapphirinum (Eastwood) H. MasonSaphire Woolly StarAH; rareOCCEricameria ericoides (Less) JepsonHeatherleaf GoldenbushS; rareOCCEricameria pinifolia (A. Gray) H.M. HallPine GoldenbushS; rareOCCEriogonum angulosum Benthan var. crassifoliumThickleaf Yerba SantaS; rareOCCEriogonum angulosum Benthan var. crassifoliumDune BuckwheatAH; rareOCCEriogonum angulosum Benth.Angle-stemmed BuckwheatS; rareOCCEriogonum maryifolium Smith var. parvifoliumDune BuckwheatS; rareOCCEriogonum maryifolium Smith var. parvifoliumDune BuckwheatS; rareOCCEriogonum maryifolium Smith var. parvifoliumDune BuckwheatS; rareOCC <td></td> <td></td> <td></td> <td></td> <td></td> <td>2</td>						2
Dudleya parva Rose & Davidson [Dudleya abramsii Rose ssp. parva (Rose & Davids.) J. Bartel]Conejo Live-foreverPH, Fed. ThreatenedRRDudleya put/verulenta ssp. arizonica (Rose) MoranChalky Live-foreverPH; rareDudleya put/verulenta ssp. arizonica (Rose) MoranChalky Live-foreverPH; rareDudleya verityi N. NakaiVerity Live-foreverPH; rareREleocharis macrostachya BrittonCommon Spike-rushPH; rare </td <td></td> <td></td> <td></td> <td></td> <td>R</td> <td>R*</td>					R	R*
Rose ssp. parva (Rose & Davids.) J. Bartel]Conejo Live-foreverPH, Fed. ThreatenedRRDudleya pulverulenta ssp. arizonica (Rose) MoranChalky Live-foreverPH; rareIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII						
Dudleya verityi N. NakaiVerity Live-foreverPH; Fed. ThreatenedREleocharis macrostachya BrittonCommon Spike-rushPH; rareEpilobium brachycarpum C. PreslPanicled Willow-herbAH; rareEragrostis mexicana var. virescens (C. Presl) Koch & SanchezOrcutt LovegrassAG; rareEriastrum sapphirinum (Eastwood) H. MasonSaphire Woolly StarAH; rareEricameria aricoides (Less.) JepsonHeatherleaf GoldenbushS; rareEricameria palmeri var. pachylepis (H.M. Hall) NesonPine GoldenbushS; rareEricameria palmeri var. pachylepis (H.M. Hall)Pine GoldenbushS; rareEricameria palmeri var. pachylepis (H.M. Hall)Pine GoldenbushS; rareEriogonum crocatum A. DavidsonConejo BuckwheatPH; CA RareRREriogonum angulosum Benth.Angle-stemmed BuckwheatAH; rareEriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; rareEriogonum vrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareFilago california FilagoAH; rareOFridina billora Lindley var. bifloraChocolate LilyPH; rareGalim muttallii A. Gray Sp. nuttalliiClimbing BedstrawS/PH; rareGalim antilla Gila california GiliaAH; rareOFridigo calif	Rose ssp. <i>parva</i> (Rose & Davids.) J. Bartel]	Conejo Live-forever	PH, Fed. Threatened		R	R
Eleocharis macrostachya BrittonCommon Spike-rushPH; rareImage: Spike-rushPH; rareImage: Spike-rushPH; rareImage: Spike-rushPH; rareImage: Spike-rushPH; rarePH; rar	Dudleya pulverulenta ssp. arizonica (Rose) Moran	Chalky Live-forever	PH; rare			
Epilobium brachycarpun C. PreslPanicled Willow-herbAH; rareImage: Second Secon	<i>Dudleya verityi</i> N. Nakai	Verity Live-forever	PH; Fed. Threatened			R
Eragrostis mexicana var. virescens (C. Presl) Koch & SanchezOrcutt LovegrassAG; rareEriastrum sapphirinum (Eastwood) H. MasonSaphire Woolly StarAH; rareOEricameria ericoides (Less.) JepsonHeatherleaf GoldenbushS; rareImage: Control of	Eleocharis macrostachya Britton	Common Spike-rush	PH; rare			
SanchezOrcutt LovegrassAG; rareImage: set the set t	Epilobium brachycarpum C. Presl	Panicled Willow-herb	AH; rare		ф	2
Eriastrum sapphirinum (Eastwood) H. MasonSaphire Woolly StarAH; rareOIEricameria ericoides (Less.) JepsonHeatherleaf GoldenbushS; rareIIEricameria palmeri var. pachylepis (H.M. Hall) NesomPine GoldenbushS; rareOIEricameria pinifolia (A. Gray) H.M. HallPine GoldenbushS; rareOIEriodicty on crassifolium Bentham var. crassifoliumThickleaf Yerba SantaS; rareOIEriogonum crocatum A. DavidsonConejo BuckwheatPH; CA RareRREriogonum angulosum Benth.Angle-stemmed BuckwheatAH; rareOIEriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; rareOIEriogonum vrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareIIFilago californica NuttallCalifornia FilagoAH; rareOIIFrinkenia salina (Molina) I.M. JohnstonAlkai HeathPH; uncommonIIIFriillaria biflora Lindley var. bifloraChocolate LilyPH; rareOIIGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareOIIGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareIIGilia achilleifolia Ssp. multicaulis (Benth.) Grant &Many-stemmed Calif. GiliaAH; rareII		•				
Ericameria ericoides (Less.) JepsonHeatherleaf GoldenbushS; rareImage: ColdenbushS; rareImage: ColdenbushRRREriogonum angulosum Benth.Angle-stemmed BuckwheatAH; rareImage: ColdenbushImage:	Sanchez	Orcutt Lovegrass	AG; rare			
Ericameria palmeri var. pachylepis (H.M. Hall) NesomPine GoldenbushS; rareOEricameria pinifolia (A. Gray) H.M. HallPine GoldenbushS; rareOIEriodictyon crassifolium Bentham var. crassifoliumThickleaf Yerba SantaS; rareOIEriogonum crocatum A. DavidsonConejo BuckwheatPH; CA RareRREriogonum angulosum Benth.Angle-stemmed BuckwheatAH; rareOIEriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; uncommonOIEriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; rareIIEriogonum provigonum vrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareIIFilago californica NuttallCalifornia FilagoAH; rareIIFrankenia salina (Molina) I.M. JohnstonAlkali HeathPH; uncommonIIFritillaria biflora Lindley var. bifloraChocolate LilyPH; rareOIGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareOIGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareIIGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareIIGilia achilleifolia Ssp. mulitcaulis (Benth.) Grant & A.V. GrantAH; rareII	Eriastrum sapphirinum (Eastwood) H. Mason	Saphire Woolly Star	AH; rare	0		
Ericameria pinifolia (A. Gray) H.M. HallPine GoldenbushS; rareImage: Si pareImage: Si	Ericameria ericoides (Less.) Jepson	Heatherleaf Goldenbush	S; rare			
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Eriogonum angulosum Benth.Angle-stemmed BuckwheatAH; rareOEriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; uncommonOEriogonum pusillum Torrey & A. GrayPuny BuckwheatAH; rareIEriogonum wrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareIFilago californica NuttallCalifornia FilagoAH; rareIFrankenia salina (Molina) I.M. JohnstonAlkali HeathPH; uncommonIFritillaria biflora Lindley var. bifloraChocolate LilyPH; rareIGalium nuttalliiA. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareIGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareIGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareIGilia achilleifolia Ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rareI	Eriodictyon crassifolium Bentham var. crassifolium	Thickleaf Yerba Santa	S; rare	0		
Eriogonum parvifolium Smith var. parvifoliumDune BuckwheatS; uncommonOEriogonum pusillum Torrey & A. GrayPuny BuckwheatAH; rareEriogonum wrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareFilago californica NuttallCalifornia FilagoAH; rareFrankenia salina (Molina) I.M. JohnstonAlkali HeathPH; uncommonFritillaria biflora Lindley var. bifloraChocolate LilyPH; rareGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rare	Eriogonum crocatum A. Davidson	Conejo Buckwheat	PH; CA Rare		R	R
Eriogonum pusillum Torrey & A. GrayPuny BuckwheatAH; rareImage: Strate of the strate	Eriogonum angulosum Benth.	Angle-stemmed Buckwheat	AH; rare	0		
Eriogonum wrightii var. membranaceum JepsonSheathed Wright BuckwheatS; rareImage: Signa of the signa of t	Eriogonum parvifolium Smith var. parvifolium	Dune Buckwheat	S; uncommon	0		
Filago californica NuttallCalifornia FilagoAH; rareOFrankenia salina (Molina) I.M. JohnstonAlkali HeathPH; uncommonImage: Chocolate LilyFritillaria biflora Lindley var. bifloraChocolate LilyPH; rareImage: Chocolate LilyGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareImage: Climbing BedstrawGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareImage: Climbing BedstrawGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareImage: Climbing BedstrawGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rareImage: Climbing Bedstraw	Eriogonum pusillum Torrey & A. Gray	Puny Buckwheat	AH; rare			
Frankenia salina (Molina) I.M. JohnstonAlkali HeathPH; uncommonImage: Chocolate LilyFritillaria biflora Lindley var. bifloraChocolate LilyPH; rareImage: Chocolate LilyGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareImage: Chocolate LilyGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareImage: Chocolate LilyGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareImage: Chocolate LilyGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rareImage: Chocolate Lily	Eriogonum wrightii var. membranaceum Jepson	Sheathed Wright Buckwheat	S; rare			
Fritillaria biflora Lindley var. bifloraChocolate LilyPH; rareImage: Chocolate LilyGalium nuttallii A. Gray ssp. nuttalliiClimbing BedstrawS/PH; rareImage: Chocolate LilyGalium porrigens Dempster var. porrigensClimbing BedstrawPV; rareImage: Chocolate LilyGaliua achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareImage: Chocolate LilyGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rare	Filago californica Nuttall	California Filago	AH; rare	0		
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Galium porrigens Dempster var. porrigensClimbing BedstrawPV; rareGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rare		Chocolate Lily				
Galium porrigens Dempster var. porrigensClimbing BedstrawPV; rareGilia achilleifolia Benth. ssp. achilleifoliaCalifornia GiliaAH; rareGilia achilleifolia ssp. mulitcaulis (Benth.) Grant & A.V. GrantMany-stemmed Calif. GiliaAH; rare	Galium nuttallii A. Gray ssp. nuttallii	Climbing Bedstraw	S/PH; rare	0		
Gilia achilleifolia Benth. ssp. achilleifolia       California Gilia       AH; rare         Gilia achilleifolia ssp. mulitcaulis (Benth.) Grant &       Many-stemmed Calif. Gilia       AH; rare					Ì	
Gilia achilleifolia ssp. mulitcaulis (Benth.) Grant &         A.V. Grant         Many-stemmed Calif. Gilia         AH; rare					<b>.</b>	2
	Gilia achilleifolia ssp. mulitcaulis (Benth.) Grant &					
	Gilia angelensis V. Grant	Angel Gilia	AH; rare	0		

 $\label{eq:conservation} E: \conservation \$ 



Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>			
			ENVICOM 1989	FEIR 1992	SEIR 2002	
Gnaphalium leucocephylum A. Gray	White Everlasting	AH; uncommon				
Grindelia camporum var. bracteosum (J.T. Howell)	<b></b>			<b>0</b>	2	
M.A. Lane	Bracted Gumplant	S; rare	0			
Grindelia hirsutula Hook. & Arn. var. hirsutula	Hirsute Gumplant	S/PH; rare				
Harpagonella palmeri A. Gray	Palmer's Grapplinghook	AH; CNPS 4			R*	
Helianthemum scoparium Nuttall	Peak Rushrose	S; rare	0			
Helianthus gracilentus A. Gray	Wild Mountain Sunflower	PH; rare	0			
Hemizonia minthornii Jepson	Santa Susana Tarplant	S; CA Rare	0	R	R	
Hesperocnide tenella Torrey	Western Nettle	AH; rare				
Heterotheca sessiliflora ssp. echioides (Benth.) Semple	Hairy Golden-Aster	PH; rare				
Hoffmannseggia glauca (Ortega) Eifert	Pig-nut	S; rare				
Horkelia cuneata ssp. puberula (Greene) Keck	Fuzzy Horkelia	PH; rare				
Hutchinsia procumbens (L.) Desv.	Desert Hutchinsia	AH; rare				
Isocoma menziesii (Hook. & Arn.) G. Nesom						
var. menziesii	Coastal Goldenbush	S; rare	0			
Juglans californica S. Watson var. californica	So. California Black Walnut	T; CNPS 4	0			
Juncus balticus Willd.	Baltic Rush	PH; uncommon		÷		
Lagophylla ramosissima Nuttall ssp. ramosissima	Common Hareleaf	AH; rare				
Lasthenia coronaria (Nuttall) Ornduff	Crown-pappus Goldfields	AH; rare				
Lathyrus vestitus var. laetiflorus (Greene) Broich	Pacific Peavine	PV; rare	0			
Lathyrus vestitus var. laevicarpus Broich	Pacific Peavine	PV; rare		1		
Lemna sp.	duckweed			0		
Lilium humboldtii ssp. ocellatum (Kellogg) Thorne	Ocellated Humboldt Lily	PH; CNPS 4			2	
Linanthus dianthiflorus (Benth.) E. Greene	Ground Pink	AH; rare				
Linaria canadensis var. texana (Scheele) Pennell	Tufted Mudwort	AH; rare				
Lithophragma affine A. Gray	Woodland Star	PH; rare	0			
Lomatium lucidum (Torrey & A. Gray) Jepson	Lomatium	PH; rare				
	Roundleaf Heerman Lotus					
Lotus heermanii var. orbicularis (A. Gray) Isley Lotus micranthus Benth.	•	PH; rare				
Lotus micrannus Benth. Lotus purshianus (Benth.) Clements & Clements	Tiny Lotus	AH; rare				
var. <i>purshianus</i> (Benn.) Clements & Clements	Spanish Clover	AH; uncommon	Ο			
Lupinus sparsiflorus Benth. ssp. sparsiflorus	Few-flowered Lupine	AH; uncommon				
Lupinus truncatus Nuttall	Truncate-leaved Lupine	AH; rare				
Madia gracilis (Smith) Keck	Slender Tarplant	AH; rare				
Malacothamnus fasciculatus var. laxiflorus (A. Gray)	<b></b>			A		
Kearney	Lax-flowered Bushmallow	S; rare				
Malacothamnus nuttallii Abrams	Nuttall Bushmallow	S; uncommon				
Malacothrix saxatilis (Nuttall) T.& G. var. saxatilis	Cliff-aster	PH; CNPS 4	0			
Malvella leprosa (Ortega) Krapov	Alkali-Mallow	PH; rare				
Melica californica Scribner var. californica	California Melic Grass	PG; rare	0	0	R	
Melica stricta var. albicaulis Boyle	Whitestem Melic Grass	PG; rare				
Mentzelia affinis E. Greene	Stickleaf	AH; rare				

 $\label{eq:conservation} E: \conservation \$ 



Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>		
			ENVICOM 1989	FEIR 1992	SEIR 2002
Mentzelia micrantha (Hook. & Arn.) Torrey & A. Gray	Tiny-flowered Stickleaf	AH; rare			
Micropus californicus Fischer & C. Meyer var. californicus	Slender Cottonweed	AH; rare	0		
Microseris linearifolia (DC.) Schultz-Bip.	Silver Puffs	AH; rare			
Mimulus aurantiacus var. puniceus (Nutt.) Thompson	Bush Monkeyflower	S; rare			
Mimulus pilosus (Bentham) S. Watson	Downy Monkeyflower	AH; rare			
Monardella undulata Bentham	Curly-leaved Horsemint	PH; rare			
Monolopia lanceolata Nuttall	Lanceleaf Hilltop Daisy	AH; rare	0	0	
Muhlenbergia rigens (Bentham) Hitchc.	Deer Grass	PG; rare			
<i>Myrica californica</i> Chamisso	California Wax-Myrtle	S; rare			
Nassella cernua (Stebbins & Love) Barkworth	Foothill Needlegrass	PG; rare		1	
Nassella lepida (A. Hitchc.) Barkworth	Foothill Needlegrass	PG; rare			
Nemophila menziesii Hooker & Arnott var. menziesii	Baby Blue-eyes	AH; rare	0	4	
Nicotiana quadrivalis Pursh	Indian Tobacco	AH; rare			
Nolina parryi S. Watson	Parry Bear-grass	S; CNPS 4			0
Notholeana californica D.C. Eaton	California Cloak Fern	PF; rare			
Opuntia basilaris Engelm. & J. Bigelow var. basilaris	Beavertail Cactus	S; rare			
Opuntia basilaris var. brachyclada (Griffiths) Munz	Short-joint Beavertail	S; CNPS 1B			R*
<i>Opuntia oricola</i> Philbr.	Round-pad Prickly Pear	S; rare			
Opuntia prolifera Engelm.	Coastal Cholla	S; rare			
Opuntia Xvaseyi (J. Coulter) Britton & Rose	Mesa Prickly Pear	S; rare			
Orcuttia californica Vasey	California Orcutt Grass	AG; CA/Fed Endangered			R
Osmorhiza brachypoda Torrey	Sweet Cicely	PH; rare			
Oxalis albicans ssp. californica (Abrams) G. Eiten	California White Wood Sorrel	PH; rare		<b></b>	
Papaver californicum A. Gray	Wind or Fire Poppy	AH; rare		Ī	
Parietaria hespera B.D. Hinton var. hespera	Southwest Pellitory	AH; rare	0		
Pectocarya linearis ssp. ferocula (Johnston) Thorne	Linear Pectocarya	AH; rare	0		
Pentachaeta lyonii A. Gray	Lyon Pentachaeta	AH; CA/Fed Endangered		R	R
Perityle emoryi Torrey	Rock Daisy	AH; rare		Ī	
Phacelia cicutaria E. Greene var. cicutaria	Caterpillar Phacelia	AH; uncommon			
Phacelia grandiflora (Benth.) A. Gray	Large-flowered Phacelia	AH; rare			
Phacelia ramosissima Lehm. var. ramosissima	Branching Phacelia	PH; rare			
Phoradendron macrophyllum (Engelmann) Cockerell	Bigleaf Mistletoe	PH; rare	0		
Plagiobothrys canescens Bentham	Valley Popcornflower	AH; rare	0	<u>.</u>	<u>.</u>
Plagiobothrys collinus var. fulvescens (I.M. Johnston) Higgins	Popcornflower	AH; rare			
Plagiobothrys nothofulvus (A. Gray) A. Gray	Rusty Popcornflower	AH; uncommon		1	
Pluchea odorata (L.) Cass.	Saltmarsh Fleabane	P/AH; rare	0	0	
Polygala cornuta var. fishiae (C. Parry) Jepson	Fish Milkwort	S; CNPS 4			
Polygonum amphibium var. emersum Michx.	Kelp	PH; rare			
Psilocarphus brevissimus Nuttall var. brevissimus	Woolly Marbles	AH; rare			

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Scientific Name <sup>12</sup>	Common Name <sup>13</sup>	Habit <sup>14</sup> ; Status <sup>15</sup>	Observed (O) or Reported (R) During Survey or Report Year <sup>16</sup>		
			ENVICOM 1989		
Psilocarphus tenellus Nuttall var. tenellus	Slender Woolly Marbles	AH; rare	0	0	
Pteridium aquilinum var. pubescens L. Underwood	Western Bracken	PF; uncommon			
Pterostegia drymarioides Fischer & C. Meyer	Fairy Mist	AH; uncommon		0	
Quercus dumosa Nutt.	Nuttall Scrub Oak	S; CNPS 1B			
Quercus douglasii Hooker & Arnott	Blue Oak	T; rare	0	0	
Quercus lobata Nee	Valley Oak	T; uncommon		0	1
<i>Quercus X macdonaldii</i> E. Greene [ <i>Q. berberidifolia X Q. lobata</i> ]	MacDonald Oak	T; rare	ο	0	
Rafinesquia californica Nutt.	California Chicory	AH; uncommon			p
Rhus ovata S. Watson	Sugar Bush	S; uncommon			
Ribes indecorum Eastw.	White-flowered Currant	S; rare			
Rumex hymenosepalus Torrey	Wild Rhubarb	PH; rare			
Rumex salicifolius J.A. Weinm. var. salicifolius	Willow Dock	PH; rare			
Salix hindsiana var. leucodendroides (Rowlee) C. Ball	Sandbar Willow	S; uncommon	0		
Sanicula arguta J. Coulter & Rose	So. California Sanicle	PH; uncommon	0		
Sanicula bipinnata Hooker & Arnott	Poison Sanicle	PH; uncommon		0	
Scirpus americanus Pers.	American Bulrush	PH; rare	0		
Scutellaria tuberosa Benth.	Danny Skullcap	PH; rare			
Senecio aphanactis E. Greene	Rayless Ragwort	AH; CNPS 2			R
Senecio flaccidus var. monoensis (E. Greene) Turner & Barkley	Mono Butterweed	S; rare	0		
<i>Sidalcea malvaeflora</i> ssp. <i>californica</i> (T.& G.) C.L. Hitchc.	California Globemallow	S; uncommon			
Sidalcea neomexicana A. Gray	Saltspring Checkerbloom	PH; CNPS 2		2	R
Silene multinerva S. Watson	Many-veined Campion	AH; rare			
Solidago californica Nutt.	California Goldenrod	PH; uncommon			4
Solidago confinis A. Gray	Southern Goldenrod	PH; rare			
Stanleya pinnata (Pursh) Britton var. pinnata	Prince's Plume	S; rare		0	
Stebbinsoseris heterocarpa (Nuttall) Chambers	Chicory Microseris	AH; rare	0		
Stephanomeria cichoriacea A. Gray	Fort Tejon Milk-aster	PH; uncommon		4	
Stillingia linearifolia S. Watson	Narrowleaf Stillingia	PH; rare			, ,
Stylocline gnaphaloides Nuttall	Everlasting Nest Straw	AH; rare	0		
Tauschia arguta (Torrey & A. Gray) J.F. Macbr.	Southern Tauschia	PH; uncommon			
Thelypteris puberula var. sonorensis A.R. Smith	Sonoran Maiden Fern	PF; rare			R
Thysanocarpus curvipes Hooker	Lace Pod	AH; rare	0		
Trichostema lanceolatum Bentham	Vinegar Weed	AH; rare	0		
Trifolium albopurpureum T. & G. var. albopurpureum	Rancheria Clover	AH; rare			
Veronica americana (Raf.) Schwien.	American Brooklime	PH; rare			
Woodwardia fimbriata Smith in Rees	Giant Chain Fern	PF; uncommon			

Clearly, based on evidence presented here and from the DSEIR, most of the 210 plant species considered rare in Ventura County (approximately 79 percent) were not considered and discussed in the impact assessment, nor were specific surveys for them ever conducted, but they should have been. For example,

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Table 4.6-4 of the 1992 EIR lists only 19 rare plant taxa as occurring in the vicinity of the project site, including 7 state and federally sensitive taxa (based on a CNDDB report) and 12 rare taxa that were reported as being observed during floristic surveys. It should also be noted that the 1989 surveys conducted by ENVICOM were never considered nor discussed in the 1992 EIR; however, they should have been considered since 52 rare plant taxa were observed at the project site during those 1989 botanical surveys. Furthermore, Table 4.6-3 of the 2002 DSEIR lists 33 rare plant taxa as occurring in the vicinity of the project site, 11 of which are not even known in Ventura County, and 3 of those 33 were reported as being observed during botanical surveys. Again, the 2002 DSEIR never considered nor discussed the 1989 surveys, conducted by ENVICOM for the project, which reports at least 52 rare plant taxa as being observed onsite.

Cumulatively, 59 rare plant taxa were reported as being observed from the 1989 survey, the 1992 EIR, and the 2002 DSEIR, while only 3 rare plant taxa were reported as being observed in the 2002 DSEIR. The DSEIR appears to have basically ignored the presence of a large number of special-status plant species that will be impacted by the project for which no impact assessment has ever been conducted.

Since a specific list of Ventura County rare plants had not been developed and made public until 2000, this information should be considered new information. The fact that several species of vascular plants are now considered rare (at least locally – in Ventura County) requires an assessment of the project-related impacts to these species. No such assessment has been performed. The SEIR is deficient in this regard and should be revised to provide a complete impact assessment on the flora of the project site, and the many special-status species known to occur that will likely be adversely impacted.

No floristic checklists are provided in the DSEIR, nor are any Ahmanson Ranch consultants' supportingreports provided for review against the CNPS checklist of Ventura County rare plants. This is a significant oversight and leaves the EIR inadequate since the direct or indirect impacts to one or more of these rare species would likely result in significant impacts. Furthermore, no mitigation is recommended to offset these impacts since the impacts were overlooked, or ignored. CNPS suspects that the Ahmanson Ranch project site contains additional special-status plant species; however, this can only be determined through complete floristic field surveys, as described by CDFG and CNPS.

Questions regarding the methods followed for the botanical surveys remain. Were dates of surveys appropriate to cover seasonal variations to ensure complete coverage of the site to ensure proper detection and identification of the plants present? Did the botanists go back to the same areas during different seasons? Ten (10) acres (only 10 acres?) of the site burned last year. Were floristic field surveys conducted in the burn area to detect fire-following species, such as the Braunton's Milkvetch (*Astragalus brauntonii*)? Unless proper floristic field surveys were conducted over the entire area to be impacted, the botanical surveys are substandard and incomplete<sup>17</sup>. Without complete surveys being conducted, no claims by Ventura County can be made that the proposed project will not impact one or more of the special-status plants known or expected to occur onsite.

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<sup>&</sup>lt;sup>17</sup> Ferren, W.R., Jr., D.L. Magney, and T.A. Sholars. 1995. The Future of California Floristics and Systematics: Collecting Guidelines and Documentation Techniques. *Madroño* 42(2):197-210; California Native Plant Society. 2001. Botanical Survey Guidelines. Board of Directors, Sacramento, California. See www.cnps.org for complete text of guidelines.



#### **Impact Assessment on SFVS Inaccurate**

The DSEIR bases its assessment of impacts to the San Fernando Valley Spineflower (SFVS) (*Chorizanthe parryi* var. *fernandina*) solely on information supplied by Washington Mutual and their consultants. CNPS believes that the actual extent of the SFVS on the Ahmanson Ranch may be more extensive than what was reported since no botanist has conducted surveys for SFVS over the entire property. The sampling protocols used were predictive in nature and narrowly focused. Furthermore, data on how population estimates for the SFVS were made has not been made available or summarized in the DSEIR, and may be of questionable statistical sampling methods that did not adequately estimate the population size; yet, the impact assessment was performed using those questionable numbers to determine the level of impact to the extremely rare species. Since SFVS has also been found on Newhall Ranch property in the Santa Susana Mountains to the northeast, on different substrate (different geologic formation), it is highly likely that SFVS is present in areas not surveyed by Washington Mutual's consultants.

For example, Sapphos states that they found SFVS often growing in (dirt) roadbeds; however, surveys for SFVS were not conducted along all the roads and trails on Ahmanson Ranch. Therefore, how can any reasonable scientist make a claim that they know where all the SFVS plants occur on the Ahmanson Ranch? They can't! CNPS believes that the proposed project will result in greater direct impacts to the SFVS than that stated in the DSEIR.

No attempt has been made to determine the extent of the SFVS seedbank, nor that a seedbank exists, such as in areas where SFVS has not been observed. Areas of Ahmanson Ranch may contain SFVS as seed only, which may germinate only during favorable climatic conditions. The environmental triggers for germination of the SFVS seeds are unknown; therefore, no reliable conclusions about the total SFVS population size or extent can be made until such information is known, or at least estimated. The environmental microhabitat conditions vary considerably from year to year in coastal southern California. The build up of thatch in suitable habitat may have inhibited germination of SFVS in some areas of the project site, leaving the true extent of the SFVS underestimated. There has been no sampling of the soil in suitable habitat for the presence of SFVS seed. Native annual species, such as SFVS, are known to lie dormant as seed for several years waiting for environmental conditions to be acceptable for successful growth and reproduction. It is likely that additional areas of the Ahmanson Ranch contain additional populations (subpopulations) of SFVS that have not been detected for the aforementioned reasons.

The DSEIR correctly states that the loss of SFVS plants is a significant impact; however, it errs when claiming that the loss of 9.5 percent of the reported population can be mitigated to a less-than-significant level. The small populations occurring on Newhall Ranch have likely been destroyed by Newhall Land and Farming Company since the site where it was reported has plowed for agriculture.

The proposed preserve (discussed in greater detail in the next section) is inadequate to ensure security for the remaining SFVS plants at Ahmanson Ranch. No credible evidence is presented to demonstrate that transplantations (through seeding) will be successful, which is the entire basis of the proposed mitigation. Furthermore, the fire regime of the area will be permanently altered, which may adversely impact the remaining plants. Currently, the area burns about every ten years, which may be necessary to keep thatch buildup low in grassland areas and to maintain lower-growth Coastal Sage Scrub ecotones to allow SFVS



plants to establish and be successful. Native species competition with invasive exotic plants and invertebrates will increase since roads and urban development will surround the preserve.

#### **Preserve Design for SFVS Inadequate**

The proposed design of the SFVS preserve is inadequate in protecting the SFVS in perpetuity. The preserve would be surrounded by development and roads. Roads are known to be vectors for the spread and dispersal of invasive exotic plant species, which are also known to have a competitive edge over most native plant species. For example, Yellow Star-thistle (*Centaurea solstitialis*) readily invades roadsides, such as those proposed at Ahmanson, and can effectively encroach and out-compete native species. This impact issue was not addressed in the DSEIR.

The buffer zone around the proposed preserve is too narrow to effectively protect the SFVS and the integrity of the botanical resources of the preserve. The preserve would be a biological island surrounded by development, with little or no connectivity with adjacent or nearby natural habitats. Invasive pest species, such as the Argentine Ant (*Linepithema humile*) and European Milk and Garden Snails, are pervasive invaders of native plant communities near (as far as 600 feet from) development (Suarez et al. 1998<sup>18</sup>). These species are known to out-compete native invertebrates and to eliminate them from the natural environment. Native ants are the primary food source for the San Diego Coast Horned Lizard (*Phrynosoma coronatum*), a special-status species. It is known that the San Diego Coast Horned Lizard cannot survive on eating the nonnative Argentine Ant since it does not contain enough protein and is too small to sustain the lizard, which requires larger native ants as an adequate food source (Suarez et al. 1998).

The Argentine Ant readily invades areas that are irrigated and disturbed. Water sources are provided by the mandatory irrigated zone (which will occur around the preserve), and disturbance is an ongoing result of vegetation removal (Longcore 2000<sup>19</sup>). Argentine Ants invade far beyond the water sources and into surrounding undisturbed habitats, with increased abundance documented to a distance of up to 200 meters (656 feet), eliminating native ant species wherever they invade (Suarez et al. 1998).

No scientifically valid studies have been conducted on the SFVS to determine its pollinators, its microhabitat conditions, the environmental parameters that trigger its germination, its method of seed dispersal to adjacent habitats, and what other plant or animal species are required to maintain or sustain the plant. Without these data, no effective preserve designs can be developed, nor can mitigation plans be proposed, that have any confidence of success. Since the SFVS is an endangered species, it is extremely important to approach both aspects cautiously and prudently, and err on the side of preserving this species.

The current mitigation plan and preserve design may lead to the extinction of the SFVS, which is permanent. There is no justification for risking extinction of a species simply to provide expensive housing and golf courses, or even places of employment, as these facilities can be built elsewhere in areas

<sup>&</sup>lt;sup>18</sup> Suarez, A.V., D.T. Bolger, and T.J. Case. 1998. Effects of Fragmentation and Invasion on Native Ant Communities on Coastal Southern California. *Ecology* 79:2041–2056.

<sup>&</sup>lt;sup>19</sup> Longcore, T. 2000. Ecological Effects of Fuel Modification on Arthropods and Other Wildlife in an Urbanizing Wildland. Pages 000–000 in L.A. Brennan et al. (eds.) National Congress on Fire Ecology, Prevention, and Management Proceedings, No. 1 Tall Timbers Research Station, Tallahassee, FL.

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that do not put endangered species and habitats at risk of permanent significant impacts including extinction.

## PLANT COMMUNITY CLASSIFICATION SYSTEM MISLEADING

The descriptions of the natural vegetation are inadequate. Only ten plant communities are listed in the DSEIR as occurring on the Ahmanson Ranch project site (Page 4.6-2 and Figure 4.6-2) and those listed are not even described (only short sentences here and there). Rincon Consultants erred in using outdated and misleading vegetation descriptions, such as "Non-native Grassland". They did correctly refer to CNPS's *A Manual of California Vegetation*<sup>20</sup>; however, they persisted in referring to California Annual Grassland as "Non-native Grassland", giving a biased picture of the nature and importance of the grassland vegetation and habitat of the project site.

Grasslands, even those dominated by naturalized (nonnative) grasses, are widely known by biologists to be very important as foraging, nesting, mating habitat for a wide variety of wildlife species, not to mention the numerous species of wildlife that reside in grasslands, and has been shown to have very high relative bird species richness compared to other vegetation types<sup>21</sup>. The DSEIR fails to provide any descriptions of the plant communities present onsite, referring to the outdated 1992 EIR and the Resource Management Plan, which is not included as a technical appendix to the DSEIR. The reviewing public has no easy means of reviewing the 1992 EIR since it is not available for review, and the Ventura County decisionmakers (i.e. Board of Supervisors) are of a different makeup than those that reviewed the 1992 EIR. A reasonable person would assume that at least a summary of the plant communities and plant associations, which provide habitat to a wide variety of plants and wildlife. To distill this complexity into ten (nine native) general plant communities seriously and misleadingly presents a picture of an environment of little uniqueness and value. This simply is not true and is quite misleading.

The job of the EIR consultant is to present the facts about the environment in a meaningful, complete, and unbiased manner as simply as practicable for the decisionmakers to make an informed decision. We can say with confidence that if a person is presented with two descriptions of the same site, one that lumps the habitats into a few general categories, and the other that is more refined by describable habitats (such as that developed for the Manual of California Vegetation), that person will place more ecological importance on the description listing the more refined habitats. The EIR consultants have presented the habitat diversity and species richness of the project site in such a generalized and minimized manner that the reader (and the decisionmaker) is given the impression that no significant value should be placed on the plant communities and habitats present onsite. The fact that Ahmanson Ranch is known to provide habitat for many rare species (see comments above- and Table 2) is testimony to the high value and function of the plant communities that support the sensitive species onsite. For example, as presented in the DSEIR, the San Fernando Valley Spineflower grows in "Non-native Grassland" habitat. Does it grow in all areas of Non-native Grassland? Not likely. It has very specific habitat requirements, most of which are little known by scientists. To simply label a plant community so generically and generally, as was done in the DSEIR, (1) oversimplifies and avoids the actual existing conditions of the project site, (2) misleads the decisionmaker and reviewing public as to the value, importance, and biodiversity of the

<sup>&</sup>lt;sup>20</sup> Sawyer, J.O., and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society, Sacramento, California.

<sup>&</sup>lt;sup>21</sup> Jones & Stokes Associates, Inc. 1989. Sliding Towards Extinction: Reassembling the Pieces. Sacramento, California. Commissioned by The Nature Conservancy, San Francisco, California.

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project site resources, and (3) is misleading as to what biological resources would be impacted by the proposed project.

Grasslands, even those dominated by nonnative grasses, have some of the highest plant species richness in California plant communities. This species richness of grasslands is even greater when the number of birds, mammals, amphibians, reptiles, and invertebrates that inhabit such habitats are added. Grasslands are highly productive plant communities and extremely important to a large number of common and rare wildlife species. In fact, grasslands have been reduced in areas in California by about 90 percent, representing a tremendous and significant loss of plant and wildlife habitat. Labeling the annual grasslands at the Ahmanson Ranch site as "Non-native Grassland" presents a bias that ignores its importance to wildlife and plants in the region, including special-status species known to occur onsite, in these "non-native grasslands".

The DSEIR does not consider the importance of grassland vegetation to wildlife. The DSEIR does not consider the rarity of grassland in the Simi Hills, in Ventura County, in Southern California, or all of California. The DSEIR also does not address the cumulative loss of grassland locally, regionally, or statewide. Grasslands support some of the most diverse assemblies of plant and wildlife species in California<sup>22</sup>, many of which are threatened and endangered. CNPS believes that grasslands are rare locally, regionally, and statewide, especially considering the cumulative losses that have occurred in the past 150 years. No mitigation of the loss of grassland was provided. The DSEIR is also deficient in this respect.

Coastal Sage Scrub (Venturan Coastal Sage Scrub in the DSEIR) is not described and fails to recognize the importance, rarity, species richness, and diversity of this plant community. Coastal Sage Scrub is well established in the scientific literature, and in our experience, these vegetation cover types provide significant resources to wildlife<sup>23</sup>. A total of ten Coastal Sage Scrub plant communities (plant associations) were mapped in the Calleguas Creek Watershed, which includes the Simi Hills and is immediately adjacent to the Ahmanson Ranch. Additional Coastal Sage Scrub associations are likely present in the region. To state that only Venturan Coastal Sage Scrub is present onsite, and that it will be the only type of Coastal Sage Scrub to be impacted by the proposed project, greatly under-reports the actual project impacts.

As part of the GAP analysis that UCSB conducted for the Southwestern Region<sup>24</sup> of California, which includes Simi Hills and the Las Virgenes Creek watershed, Coastal Sage Scrub vegetation was found to be a plant community at risk, as less than 1 percent of Coastal Sage Scrub is provided with any form of protection in Ventura County. Furthermore, Coastal Sage Scrub plant communities have long been considered an endangered habitat with only 10 to 15 percent of its original extent remaining<sup>25</sup> and should have been considered as such in the DSEIR. The DSEIR fails to recognize the rarity of Coastal Sage Scrub, and fails to recognize or consider the cumulative loss of it locally and regionally. It does not quantify the contribution to cumulative losses locally or regionally, it only quantifies losses for onsite

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<sup>&</sup>lt;sup>22</sup> Jones & Stokes Associates, Inc. 1989.

<sup>&</sup>lt;sup>23</sup> for example, see Soule, M.E., D.T. Bolger, A.C. Alberts, J. Wright, M. Sorice, and S. Hill. 1988. Reconstructed Dynamics of Rapid Extinctions of Chaparral-requiring Birds in Urban Habitat Islands. *Conservation Biology* 2:75-92.

<sup>&</sup>lt;sup>24</sup> 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.

<sup>&</sup>lt;sup>25</sup> Westman, W.E. 1981. Factors Influencing the Distribution of Species of California Coastal Sage Scrub. *Ecology* 62:439-455; Westman, W.E. 1986. Implications of Ecological Theory of Rare Plant Conservation in Coastal Sage Scrub. Pages 133-140 <u>In</u> *Conservation and Management of Rare and Endangered Plants*. Proceedings from a Conference of the California Native Plant Society, T.S. Elias, ed. California Native Plant Society, Sacramento, California.



impacts. No mitigation to replace impacted Coastal Sage Scrub is recommended. The dedication of existing remaining habitat does not replace the permanently lost Coastal Sage Scrub, and is insufficient and incomplete mitigation pursuant to CEQA regulations. The DSEIR is deficient in this regard. Cumulative permanent losses to Coastal Sage Scrub are not mitigated.

#### **RARE PLANT TRANSPLANTATION AS MITIGATION NOT FEASIBLE**

The DSEIR proposes to mitigate for impacts to rare plant species, such as the Plummer Mariposa Lily (*Calochortus plummerae*), by transplanting them to an undefined mitigation site. First, transplantation of rare plants for mitigation purposes has been found as an almost complete failure, with over 90 percent of such attempts failing to meet one or more success criteria. A 10 percent success rate is not good odds for betting on the existence of a rare species. Furthermore, it is clear the consultants have not done any research on requirements for transplanting *Calochortus*. Dr. Peggy Fiedler, an expert on *Calochortus*, has been conducting experiments on transplanting and monitoring *Calochortus*. She found that transplanted bulbs of *Calochortus* may take as long a seven years before any meaningful results can be measured, with no plants even sprouting until the fourth year. If such a mitigation measure were to be successful, which is unlikely given the evidence, it would take a minimum of seven years to begin to determine if that mitigation was in fact successful. Just five years of monitoring would likely show less than favorable results for plants such as in the genus *Calochortus*.

## MITIGATION PRESERVES ARE NOT VIABLE

Based on the population estimates determined by Sapphos (see Page 4.6-84), the proposed 330 acres preserved for the SFVS would provide approximately eleven square feet for each SFVS plant. This calculation assumes that every square foot of the preserve is suitable for the SFVS, which it will not. One preserve is not proposed, rather several small "preserves" are proposed, each surrounded by development. Most populations of annual plants expand and contract annually or periodically based on environmental variables, primarily soil moisture availability. Since the populations are dynamic, they require sufficient room to expand when conditions are right. Plants also migrate as climatic conditions change. While this migration may occur over a very long time, it indeed does occur. If the intent of this preserve is not connected to intact habitat for the SFVS to migrate into or from. The preserves will be completely surrounded by roads and development of one sort or another. There will be no opportunity for long-term migration or recruitment of adjacent habitat since no suitable habitat will be left available.

Furthermore, CNPS questions the ability of the SFVS to survive in the preserves over the long term if each plant is only allocated on average eleven square feet of ground, which will also be occupied by other plant species as well. As stated above, plants need room to expand their population and gene pool to maintain population viability. Outlying subpopulations are often important for recruitment into adjacent habitats, and for recolonizing the "parent" population after years of poor reproduction based on natural environmental variables, or stochastic events that eliminate an entire, or partial, population. Restricting the SFVS to such a small preserve will almost surely result in extirpation, and likely extinction of the SFVS.

As mentioned elsewhere in this letter, the buffer areas surrounding the SFVS need to be large enough to actually buffer the preserve from outside influences, such as from invasive exotic species like the Argentine Ant. Since the Argentine Ant is known to extend colonies over 600 feet into native vegetation



from adjacent disturbed "urban" landscapes, the buffer around the SFVS preserve should be at least 600 feet wide, and should exclude roads and soil disturbance, as well as any irrigation of vegetation. The proposed project and minimal mitigation may jeopardize the continued existence of the SFVS.

# PRESERVATION OF OTHER HABITAT DOES NOT MITIGATE FOR DIRECT LOSSES

The DSEIR claims that many of the impacts to biological resources, such as to Coastal Sage Scrub and other plant communities, will be mitigated by preserving existing habitat on adjacent parcels. Preserving existing habitat and plant communities in areas not to be impacted does nothing to replace the functions and values of the habitats destroyed by the project. There still is a cumulative and incremental loss of habitat unless an equal area of nonhabitat is restored to functional habitat. That is not proposed. Furthermore, implementation of the proposed project will likely have indirect impacts to those preserved parcels intended to serve as mitigation for onsite impacts.

While preservation of habitat is laudable and welcomed, simply preserving it offsite provides no mitigation for the direct and cumulative impacts onsite. This sort of so-called "mitigation" is a tease to decisionmakers to fool them into thinking that the existing habitat will be destroyed unless the project is approved with such "mitigation". We hope the Ventura County Board of Supervisors are more intelligent than to be so persuaded. Preserving existing habitat simply is not mitigation and should not be used as such, at least not for mitigating direct impacts to biological resources.

# COUNTY FAILED TO CONSULT WITH CNPS AND AUDUBON SOCIETY

The Ventura County General Plan contains a policy that requires the County to consult with CNPS and Audubon Society on project-related impacts to the flora and fauna (Ventura County General Plan Policy 1.5.2.4 – "...National Audubon Society and the California Native Plant Society shall be consulted when discretionary development may affect significant biological resources."). The EIR consultants did review CNPS's *Inventory of Rare and Endangered Vascular Plants of California* as part of its impact assessment; however, they failed to review the most recent Sixth edition of the *Inventory of Rare and Endangered Plants of California*, which has numerous changes since the Fifth edition. Additionally, no one from Rincon Consultants, Ventura County, or Ahmanson Ranch's consultants have ever consulted CNPS staff, nor volunteer experts, regarding botanical resources of the project site.

Appropriate CNPS contacts include: David Chipping (Conservation Director), David L. Magney (Channel Islands Chapter Conservation Chairman and State Board Member), Richard A. Burgess (Channel Islands Chapter Rare Plants Coordinator for Ventura County), David Tibor (CNPS State Rare Plant Botanist), Emily Roberson (CNPS State Lands Management Analyst), and Illeene Anderson (CNPS Southern California Botanist). Contact information is available from the CNPS website (www.cnps.org) or by calling the state office at 916/447-CNPS. Local Audubon Society contacts include Jack Gillooly (Conservation Chair – 805/658-5731) and Neil Ziegler (President of Ventura Audubon - P.O. Box 24198, Ventura CA 93002).



# FAILURE TO CONSIDER IMPACTS ON INVERTEBRATES

The DSEIR needs to address project-related impacts to the native invertebrate fauna of the project site. The invertebrate fauna makes up the vast majority of species of all wildlife and plants on the Ahmanson Ranch site, but were mostly ignored in the 1992 EIR, 2002 DSEIR, and supporting biological resource surveys.

A recent newspaper article told of several new species of invertebrates recently being discovered in Southern California (Bridges 2002<sup>26</sup>), which clearly suggests that new, and rare, species of invertebrates are likely present in areas such as Ahmanson Ranch (note: the article did not mention the project site). General surveys for invertebrates should have been conducted onsite rather than just focused surveys targeting a couple of species of invertebrates. It is highly likely that one or more rare species of invertebrates are present onsite, but we will never know unless a qualified entomologist actually looks. To state that there will be no significant impacts to the invertebrate fauna is an entirely baseless conclusion without adequate (or even any) general invertebrate surveys. The fact is that ENVICOM actually did fairly extensive field surveys for invertebrates in the late 1980s in support of the 1992 EIR; however, the impact assessment was inadequate. Specifics are provided below.

# **Special-Status Butterfly Species Not Evaluated**

Dr. Rudi Mattoni, lepidopterist, lists 39 species of butterflies as rare in the Los Angeles region<sup>27</sup>, which includes the project site. The following special-status species of butterflies have potential to occur on Ahmanson Ranch. The butterflies indicated by a "A" were directly observed onsite by ENVICOM during their 1989 wildlife field surveys. The four observed special-status butterfly species, as well as all additional sensitive butterfly species with potential to occur onsite, should have been included/assessed in the EIRs:

- Becker's White (*Pieris chloridice beckeri*)
- Desert Orangetip (*Anthocharis cethura cethura*)
- Grinnell's Marble (Anthocharis lanceolata australis)
- ☆ Harford's Sulfur (*Colias alexandra harfordii*)
- California Dogface (Zerene eurydice)
- ☆ Monarch (*Danaus plexippus*)
- A California Ringlet (Coenonympha tullia california)
- Sylvan Satyr (*Cercyonis sthenele silvestris*)
- Comstock's Fritillary (Argynnis [Speyeria] callippe comstocki)
- Wright's Checkerspot (*Euphydroyas editha quino*)
- ☆ Gabb's Checkerspot (Melitaea [Chlosyne] gabbii gabbii)
- Wright's Leanira Checkerspot (Melitaea [Chlosyne] leanira wrightii)
- Thistle Crescent (*Phyciodes mylitta mylitta*)
- Satyr Angelwing (Polygonia satyrus satyrus)
- Lorquin's Admiral (*Liminitis lorquini lorquini*)

<sup>&</sup>lt;sup>26</sup> Bridges, A. 2002. Scientists Identify New Insect Species in Southern California. Associated Press, published 5 April 2002. http://www.sfgate.com/cgi-bin/article.cgi?file=/news/archive/2002/04/05/state1841EST0150.DTL

<sup>&</sup>lt;sup>27</sup> Mattoni, Rudi. 1990. Butterflies of Greater Los Angeles. The Center for the Conservation of Biodiversity/ Lepidoptera Research Foundation, Inc. Beverly Hills, California.

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- Southern Sylvan Hairstreak (Satyrium sylvinum desertorum)
- Dryope Hairstreak (*Satyrium sylvinum dryope*)
- Santa Monica Mountains Hairstreak (Satyrium auretorum fumosum)
- Cloudy Copper (*Lycaena arota nubila*)
- Gorgon Copper (*Lycaena gorgon*)
- Purplish Copper (*Lycaena helloides*)
- Great Copper (*Lycaena xanthoides xanthoides*)
- San Emigdio Blue (*Phebejus emigdionis*)
- Coastal Arrowhead Blue (*Glaucopsyche piasus sagittigera*)
- Sonora Blue (*Philotes sonorensis sonorensis*)
- Human Folly Blue (*Philotes sonorensis extinctis*)
- Leussler's Skipper (Hesperia comma leussleri)
- Columbia Skipper (*Hesperia columbia*)
- Common Sootywing (*Pholisora cutullus*)

Surveys need to be conducted for special-status invertebrates, including the butterfly species listed above, for the DSEIR to be adequate. The DSEIR is deficient in assessing project-related impacts to the invertebrate fauna, and therefore, are inadequate in meeting CEQA requirements of documenting project-related impacts on biological resources.

## Valley Oak Ant Impact Assessment Flawed

The DSEIR states, on Page 4.6-76, that since Valley Oak Ant (*Proceratium californicum*) was not observed onsite, as a result of a limited field survey on portions of the project site, they are not likely present; or, if they occur in such small numbers, "then its distribution and habitat needs would be extremely difficult to ascertain or evaluate, at least to the degree of accuracy needed to provide useful information relative to planning". This statement makes no sense for CEQA impact assessment purposes. The questions are very simple: (1) Is Valley Oak Ant habitat present onsite? (2) Is the Valley Oak Ant present onsite? And (3) will the project impact the Valley Oak Ant? The answer to the first question is, yes, Valley Oak Ant habitat is present onsite. Second, Washington Mutual's consultant did not find Valley Oak Ant during his focused field trapping survey; however, he cannot reasonably claim that Valley Oak Ant is not present onsite based on his limited field survey. Third, it can be clearly stated that suitable habitat for Valley Oak Ant will be impacted by the project.

The pertinent question is whether or not actual Valley Oak Ant colonies will be impacted. Since exhaustive field surveys were not performed to truly determine the absence of Valley Oak Ant from the project site, no scientist would or could reasonably make a claim that it is not present, just undetected. Since suitable habitat is present, the County should err on the side of caution and make a finding of significant impact to this species if its suitable habitat is destroyed as a result of the project. Otherwise, the County needs to have conclusive evidence that the Valley Oak Ant is not present before making a finding of no impact. Either do the necessary field surveys, or make a finding based on the assumption that suitable habitat (at least some of it) is occupied by the Valley Oak Ant.

This protocol and method of impact assessment must be followed for each and every special-status species potentially occurring on the Ahmanson Ranch development site. The loss of these habitats is permanent and cannot be undone sometime in the future if the species are eliminated from the region.



The DSEIR mentions that Frank Havore found six species of ant during his field survey; however, it failed to list those species, and Dr. Havore's report was not included as a technical appendix to the DSEIR. Therefore, the reviewer is unable to critically review or question the methods and results of this work. Which species of ant were found onsite? Were any of these ant species locally rare? Are they food for the San Diego Coast Horned Lizard, a special-status species itself?

# FAILURE TO USE MOST RECENT AVAILABLE INFORMATION

The EIR preparers failed in some cases to use the most recent and available scientific data and literature in performing their impact assessment. This type of error may lead to misunderstandings, wrong conclusions, and missed impacts to biological resources. For example, the DSEIR does not reflect any review of the CNPS *Inventory* Sixth Edition, as only the 5<sup>th</sup> edition was cited. The 6<sup>th</sup> edition includes hundreds of changes since the publication of the 5<sup>th</sup> edition. Any botanist working in California should have been well aware that the 6<sup>th</sup> edition was available. In fact, draft versions of the 6<sup>th</sup> edition have been available for review for over a year. The EIR should be revised to reflect any and all changes to the plants that CNPS considers rare or endangered in California.

The CNPS *Checklist of Ventura County Rare Plants*, which has been posted on the CNPS website since June 2001, was not considered during the impact assessment. This list has been widely publicized within CNPS and readily available to all. Nearly all professional botanists in California are members of CNPS and should have been aware of this checklist.

The CALS Rare California Lichens list was ignored for this biological resources impact assessment. This list has been published and available on the internet since 1999 and should have been considered by the EIR consultants.

The CNPS *Manual of California Vegetation*<sup>28</sup>, which has been adopted as the formal vegetation classification system by all state (CDFG, Calif. Dept. of Forestry, Calif. Dept. of Parks and Recreation, Coastal Commission) and federal (USFWS, BLM, USFS, NPS) resource agencies, was not used to classify the natural vegetation of the project site. The *Manual* is the most recent and accurate classification system for California vegetation and should have been used for the impact assessment.

The EIR consultants failed to review recent literature on the success and failure of transplantation of rare plants as part of their impact assessment and as part of developing feasible mitigation measures. This is a critical failure in that the DSEIR recommends mitigation measures that are known to fail. Why would any reasonable person or entity want to recommend an expensive procedure only to have it fail and further jeopardize the rare plants that are already in question. Nothing is gained by such an approach.

The EIR consultants failed to review the existing literature, and failed to contact known experts on biological resources of the area, in considering impacts to biological resources. One example is their failure to consider the presence of regionally rare butterflies at the project site. They only considered those few butterflies that are tracked by the CNDDB. Dr. Mattoni's work, on the butterflies of the region, is well known and should have been considered as part of their impact assessment.

The EIR consultants failed to consult with persons knowledgeable and experienced with transplanting mature oak trees. Experienced oak tree arborists know that considerable planning, care, maintenance, and monitoring is required to maximize successful transplantation of mature oak trees. Generally, that

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<sup>&</sup>lt;sup>28</sup> Sawyer, J.O., and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, California.



experience has shown that the larger the oak tree, the higher the likelihood that it will die in five to ten years after a transplantation attempt. Monitoring and maintenance must be conducted weekly during drought periods if the transplanted trees are expected to survive.

## PROJECT IS INCONSISTENT WITH GENERAL PLAN GOALS AND POLICIES

The Ventura County General Plan Goal (1.5.1) is not met by the Ahmanson Ranch development project. The goal states:

"Preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/communities".

Several aspects of the biological resources policies were not followed, or the project is not consistent with them. Ventura County General Plan biological resources policy 1.5.2.2 requires "development to be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources".

How does the grading of 1,678 acres of natural habitat preserve and protect significant biological resources? The first mitigation measure should be to avoid the impact whenever feasible. Avoidance of impacts to biological resources by Washington Mutual is minimal at best. The construction footprint has only been reduced a small percentage, and that only to avoid only 90 percent of the SFVS population. The grading plan is massive, similar to the gross and outdated grading methods used in Orange County that serves only to make bidding of the grading easier for contractor. There is no apparent attempt to develop the property along existing contours; rather, entire valleys and canyons will be filled and entire hills will be removed to level the land.

## **GP Policy Not Satisfied By Reducing Total Area of Impact**

The DSEIR claims that since the current version of the Ahmanson Ranch development would be slightly smaller in size than previously proposed, that it meets General Plan policies requiring avoidance and minimization of project-related impacts. This is flawed logic as simply reducing the total area impacted does not necessarily reduce any of the project-related impacts.

## General Plan Consistency Assessment for Wetland Impacts Flawed

Ventura County General Plan biological resources policy 1.5.2-3 requires

"development that is proposed to be located within 300 feet of a marsh, small wash, intermittent lake, intermittent stream, spring, or perennial stream ..., shall be evaluated ... for potential impacts on wetland habitats. Discretionary development that would have a significant impact on significant wetland habitats shall be prohibited, unless mitigation measures are adopted that would reduce the impact to a less than significant level".

Ventura County General Plan biological resources policy 1.5.2-4 requires:

"Discretionary development shall be sited a minimum of 100 feet from significant wetland habitats to mitigate the potential impacts on said habitats. Buffer areas may be increased or decreased upon



evaluation and recommendation by a qualified biologist and approval by the decision-making body. Factors to be used in determining adjustment of the 100 foot buffer include soil type, slope stability, drainage patterns, presence or absence of endangered, threatened or rare plants or animals, and compatibility of the proposed development with the wildlife use of the wetland habitat area. The requirement of a buffer (setback) shall not preclude the use of replacement as a mitigation when there is no other feasible alternative to allowing a permitted use, and if the replacement results in no net loss of wetland habitat. Such replacement shall be "in kind" (i.e. same type and acreage) and provide wetland habitat of comparable biological value. On-site replacement shall be preferred wherever possible. The replacement plan shall be developed in consultation with California Department of Fish and Game."

These two policies require an assessment of impacts to wetland functions and values, not just the areal extent of the wetlands to be impacted. The proposed development would totally destroy 7.11 acres of wetland habitat as defined by the General Plan, with no reasonable attempt at avoidance of the direct and indirect impacts to them. The DSEIR failed to provide any assessment of impacts to wetland functions or values. The DSEIR is deficient in this respect and it should be revised accordingly to satisfy CEQA requirements.

Wetland functions can best be assessed using the U.S. Army Corps of Engineers' Hydrogeomorphic Assessment method (HGM) for Riverine wetlands. A regional model for Riverine wetlands has recently been published for coastal southern Santa Barbara County (Lee et al. 2001<sup>29</sup>) and may be appropriate to use for assessing wetland functions and impacts to them for the Ahmanson Ranch development project. Such assessments have been accepted by the Corps and Coastal Commission for projects in the Conejo Valley and Malibu (DMEC 2000<sup>30</sup>, 2001<sup>31</sup>)

To our knowledge, none of the consultants who prepared the DSEIR are wetland scientists with any experience or training in wetland assessments, such as the HGM method. The General Plan policy 1.5.2-2 requires that the County "shall be evaluated by a County-approved biologist for potential impacts on wetland habitats". Such an assessment has not be performed, and the qualifications of some of Rincon Consultants' biologists are not known and are not described in the EIR as to whether they are appropriately trained to perform such an assessment. Did the County approve the biologists as qualified who performed the wetland delineation on behalf of Washington Mutual?

County policy 1.5.2-3 prohibits projects to impact wetlands without fully and completely mitigating the impacts to them. Without a proper assessment of impacts to wetland functions, CNPS does not believe that the proposed mitigation will fully mitigate the impacts to the onsite wetlands. County policy also prohibits the County from making findings of overriding considerations for unmitigated impacts to wetlands.

<sup>&</sup>lt;sup>29</sup> Lee, L.C., Fiedler, P.L., Stewart, S.R., Curry, R.R., Partridge, D.J., Mason, J.A., Inlander, I.M., Almay, R.B., Aston, D.L., Spencer, M.E. 2001. Draft Guidebook for Reference Based Assessment of the Functions of Riverine Waters/Wetlands Ecosystems in the South Coast Region of Santa Barbara County, California. Santa Barbara County Water Agency, Santa Barbara, California.

<sup>&</sup>lt;sup>30</sup> David Magney Environmental Consulting. 2000. Wetland Functional Assessment of the Reinke Development Mitigation Plan, Thousand Oaks, California. November 2000. (PN 00-0131.) Ojai, California. Prepared for Rudy Reinke, Thousand Oaks, California. Submitted to U.S. Army Corps of Engineers, Ventura, CA and California Dept. of Fish and Game, Santa Barbara, CA.

<sup>&</sup>lt;sup>31</sup> David Magney Environmental Consulting. 2001. Wetland Functional Assessment of the Odyssey Program Middle School Project, Malibu, California. December 2001. (PN 00-0301.) Ojai, California. Prepared for Odyssey Program, Malibu, California. Submitted to California Coastal Commission, Ventura, CA.



The impact assessment for wetland resources in the DSEIR is overly complex and flawed. CEQA requires an assessment of impacts to resources, not just an account of jurisdictional permitting requirements. The CEQA impact assessment should be simply a determination of what impacts the project will have on wetland resources, and should not focus on how many acres of wetlands, under the jurisdiction of the U.S. Army Corps of Engineers (Corps), will be impacted. While CEQA requires an identification of needed permits, it does not drive the impact assessment requirements of CEQA. Ventura County has policies on wetland resources, and the EIR should focus its impact assessment accordingly.

Here are the numbers presented in the DSEIR referring to wetlands: 28.5 acres of jurisdictional wetlands, permanent loss of 3.96 acres of jurisdictional wetlands, 27.44 acres of CDFG wetlands, 23 acres of Ventura County Significant Wetlands, and impacting 7.11 acres of CDFG wetlands. There simply is no need to provide such a confusing presentation of wetland resources. Simply, how many acres of what type of wetland (not per jurisdiction) are present on the project site, and how much of each type will be impacted directly and indirectly by the development. Only after this, should there be a minor discussion on what permits may be required from various regulatory agencies. The details and requirements of these regulatory agencies are not necessary in great detail in the EIR. Besides the direct impacts to wetlands resulting from filling and/or draining, indirect impacts must be assessed. This was not conducted for the DSEIR.

Wetlands perform a wide range of functions, some of which directly benefit humans and wildlife. Riverine wetlands in the Las Virgenes Creek watershed can be characterized as performing various hydrology/geomorphology, biogeochemistry, plant habitat, and wildlife habitat functions (Table 3, Ecosystem Functions of Riverine Wetlands) (adapted from DMEC 2000<sup>32</sup>). The performance of these functions is largely dependent upon the maintenance of natural channel morphology and native plant communities. Since the proposed project will fill at least 7.11 acres of riparian wetlands, the completion of the proposed project will have negative effects on the overall ecosystem function of the Las Virgenes Creek and tributaries, and the associated riparian wetlands.

Function	Definition
	Hydrology/Geomorphology
Maintain Alluvial Corridor Integrity	Maintenance of physical attributes and processes that result in characteristic channel width, depth, slope, and roughness.
Maintain Surface Water Hydrology	Maintenance of a characteristic hydrograph, including the amount and time of water delivery to the channel network.
Maintain Subsurface Water Hydrology	Maintenance surface and ground water interactions between the channel and the local and regional aquifers.
Sediment Mobilization, Transport, and Storage	Maintenance of a characteristic sediment regime through the maintenance of a hydrograph and sediment delivery to the stream network.
	Biogeochemistry
Element and Compound Cycling	Abiotic and biotic processes that convert elements and compounds from one form to another.
Organic Carbon Export	Export of dissolved and particulate carbon, primarily through leaching and flushing.

<sup>&</sup>lt;sup>32</sup> David Magney Environmental Consulting (DMEC). 2000b. Wetland Functional Assessment of the Reinke Development Mitigation Plan, Thousand Oaks, California. November 2000. (PN 00-0131.) Ojai, California. Prepared for Rudy Reinke, Thousand Oaks, California.

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Function	Definition
	Plant Habitat
Maintain Native Plant Association	Maintenance of characteristic plant associations in terms of species composition of trees, saplings, seedlings, shrubs, and herbs.
Maintain Spatial Structure of Plant Association	Maintenance of the structural characteristics required for supporting native plant habitat and their animal associates.
Maintain Characteristic Detrital Biomass	The production, accumulation, and dispersal of dead plant biomass of all sizes. The sources may be up slope, up gradient, or on site.
Maintain Interspersion and Connectivity for Plant Populations	Maintenance of characteristic spatial relationships between plant habitats such that native plant species are capable of completing their life cycles.
	Wildlife Habitat
Maintain Native Vertebrate Associations	Maintenance of the diversity, density, and spatial distribution of aquatic and terrestrial vertebrates.
Maintain Native Invertebrate Associations	Maintenance of the diversity, density, and spatial distribution of aquatic and terrestrial invertebrates.
Maintain Interspersion and Connectivity for Animal Populations	Maintenance of characteristic spatial relationships between animal habitats such that native animal species are capable of completing their life cycles.

The HGM model considers the state of twenty-eight (28) variables that are assessed in various combinations, to measure the level of functioning for each of the fourteen wetland functions, to come up with an index score for each function. The HGM model can be used for project impact assessments by providing a systematic method to measure the relative change in wetland functions the proposed project will have, identifying those specific variables and functions that are expected to change, and providing the permitting agencies a relative numerical measurement of pre-project (baseline) and post-project conditions (after mitigation). Without using such a method, the actual environmental impacts to wetland functions cannot be accurately captured in a simple acreage calculation as performed for the DSEIR impact assessment.

CNPS is dedicated to the conservation of the California native flora. We thank you for considering our comments on the DSEIR for this large development project. Comments or questions should be directed to the author at the address or phone number on the letterhead.

Sincerely,

Moquez

David L. Magney State Board Member, Channel Islands Chapter Conservation Committee Chairman

cc: David Chipping, CNPS Conservation Director John Buse, Environmental Defense Center Assemblywoman Fran Pavley Katherine Stone, Esq. Rick Harlacher, LSA Associates Bob Hight, Director CDFG



Morgan Wehtje, CDFG Region 5 Mary Meyer, CDFG Region 5 Jack Gillooly, Audubon Society Andrew Wetzler, NRDC