RECON and Impact Sciences, Inc., "Biota Report: Newhall Ranch Specific Plan; Santa Clara River Valley, California; Tentative Tract Map 44831" (September 7, 1995; revised July 1996)

PART 2 OF 2

TABLE 3
(continued)

Scientific Name	Common Name	Status Federal/State[1]	Habitat	Local Distribution[2]
Euderma maculata	Spotted bat	C2/SSC	Roosts in rocky crevices, mines, caves, old buildings, and on coniferous trees.	Current status in study area unknown. Location of type collection in 1891 was mouth of Castaic Creek, 8 miles east of Piru (Hall, 1981).
Perognathus longimembris brevinasus	Los Angeles pocket mouse	C2/SSC	Grassland and coastal sage scrub; prefers fine sandy soils.	Potential occurrence in study area. None trapped in the project area during May 1992 survey.
Neotoma lepida intermedia	San Diego desert woodrat	C2/-	Scrub habitats.	Status unknown. Potential occurrence in study area.
Taxidea taxus	American badger	-/SSC	Grassland and oak woodland.	Uncommon resident. Potential occurrence, primarily in grassland and oak savanna habitats.

[1] Status:

Federal (USFWS 1992 and 1993):

Taxa that are federally listed and candidates for listing, pursuant to the Federal Endangered Species Act (ESA) of 1973, as amended, are presented in the Federal Register, 50 CFR 17.11.

FE = Federally listed, endangered
FT = Federally listed, threatened
FR = Taxa under review for federal listing or candidate status
PE = Taxa already proposed to be listed as endangered.
PT = Taxa already proposed to be listed as threatened.

The taxa in Categories 1 and 2 of this notice are considered by USFWS as candidates for possible addition to the List of Endangered and Threatened Wildlife. The USFWS encourages their consideration in long-range environmental planning, such as in environmental impact analysis under the National Environmental Policy Act of 1969 (implemented at 40 CFR parts 1500-1508).

C1 = Taxa for which the USFWS has on file enough substantial information on biological vulnerability and threat(s) to support proposals to list them as endangered or threatened species. Proposed rules have not yet been issued because this action is precluded at present by other listing activity. Development and publication of proposed rules on Category 1 taxa are anticipated, however, and the USFWS encourages other Federal agencies to give consideration to such taxa in environmental planning.

C2 = Taxa for which information now in the possession of the USFWS indicates that proposing to list as endangered or threatened is possibly appropriate, but for which conclusive data on biological vulnerability and threat are not currently available to support proposed rules. The USFWS emphasizes that these taxa are not being proposed for listing by this notice, and that there are no current plans for such proposals unless additional supporting information becomes available. Further biological research and field study usually will be necessary to ascertain the status of taxa in this category. It is likely that many will be found not to warrant listing, either because they are not threatened or endangered or because they do not qualify as species under the definitions in the Act. The USFWS hopes that this notice will encourage necessary research on vulnerability, taxonomy, and/or threats for these taxa.

Taxa that once were considered for listing as threatened or endangered but are no longer under such consideration are included in Category 3. Taxa in Category 3 are not current candidates for listing. Such taxa are further divided into three subcategories to indicate the reason(s) for their removal from consideration.

3A = Taxa for which the USFWS has persuasive evidence of extinction. If rediscovered, such taxa might acquire high priority for listing. At this time, however, the best available information indicates that the taxa in this subcategory, or the habitats from which they were known, have been lost.

TABLE 3
(concluded)

3B = Names that, on the basis of current taxonomic understanding (usually as represented in published revisions and monographs), do not represent distinct entities meeting the Act's definition of "species"; it also includes vertebrate populations that do not meet this definition. Such supposed taxa could be reevaluated in the future on the basis of new information.

3C = Taxa that have proven to be more abundant or widespread than previously believed and/or those that are not subject to any identifiable threat. If further research or changes in habitat indicate a significant decline in any of these taxa, they may be reevaluated for possible inclusion in Categories 1 or 2.

__State__

The official California listing of Endangered and Threatened animals is contained in the California Code of Regulations, Title 14, Section 670.5. A state candidate species is one that the Fish and Game Commission has formally noticed as being under review by the CDFG for addition to the state list. Fish and Game Code sections relating to fully protected animals state that fully protected birds (Section 3511), mammals (Section 4700), reptiles and amphibians (Section 5050), and fish (Section 5515), "or parts thereof, may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected (animal) and no such permits or licenses heretofore issued shall have any force or effect for any such purpose; except that the commission may authorize the collecting of such species for necessary scientific research and may authorize the live capture and relocation of such species pursuant to a permit for the protection of livestock. Legally imported fully protected (animals) or parts thereof may be possessed under a permit issued by the department."

SE = State listed, endangered
ST = State listed, threatened
SCE = Candidate for listing as endangered
SCT = Candidate for listing as threatened
SSC = CDFG "species of special concern."
CP = California fully protected animal

2 Distribution information: Remsen, 1978; Hall, 1981; Dames & Moore, 1989; Williams, 1986; Los Angeles Chapter, National Audubon Society, 1990 Rare Bird Alert; Larry Hunt (personal communication, 1991, 1993); Zev Labinger (personal communication, 1992).

TABLE 4

WILDLIFE SPECIES OBSERVED DURING 1992 SURVEYS AT THE WEST RANCH

Species		Type of Observation[1]	Habitat in which Observed[2]
Common Name	Scientific Name		
AMPHIBIANS AND REPTILES			
Western spadefoot toad	*Scaphiopus hammondi*	D	P
Western toad	*Bufo boreas*	D	P, G, FWM
Pacific treefrog	*Hyla (=Pseudacris) regilla*	D	P, G, FWM
California horned lizard	*Phryomsana coronatum frontale*	D	RS/AS
Western fence lizard	*Sceloporus occidentalis*	D	UPL, DEV
Side-blotched lizard	*Uta stansburiana*	D	UPL
Western whiptail	*Cnemidophorus tigris*	D	CSS, GBS
Coachwhip	*Masticophis flagellum*	D	CSS, ES
Gopher snake	*Pituophis melanoleucus*	D	RS/AS, CSS
Two-striped garter snake	*Thamnophis hammondii*	D	P,CW
Total species: 10			
BIRDS			
Turkey vulture	*Cathartes aura*	D-F	UPL, CW
Black-shouldered kite	*Elanus caeruleus*	D-F	CSS, OW/S, G, CW
Cooper's hawk	*Accipiter cooperii*	D-F	CW, G
Red-shouldered hawk	*Buteo lineatus*	D-F	CW, G, CSS, CH
Red-tailed hawk	*Buteo jamaicensis*	D, N	UPL, RS/AS, CW, A
American kestrel	*Falco sparverius*	D	OW/S, ES, RS/AS, CW
California quail	*Callipepla californica*	D, N	CSS, CH, GBS, G
Rock dove	*Columba livia*	D	DEV, R
Mourning dove	*Zenaida macroura*	D, N	OW/S, ES, RS/AS, CW, OP, A
Greater roadrunner	*Geococcyx californianus*	D	CSS, CH

TABLE 4
(continued)

Species		Type of Observation[1]	Habitat in which Observed[2]
Common Name	Scientific Name		
Common barn owl	*Tyto alba*	D	C, CW, DEV
Great horned owl	*Bubo virginianus*	D	OW/S, RS/AS, CW
White-throated swift	*Aeronautes saxatalis*	D-F	CSS, CH
Black-chinned hummingbird	*Archilochus alexandri*	D	RS/AS, CSS, CH, ES
Costa's hummingbird	*Calypte costae*	D	RS/AS, ES
Anna's hummingbird	*Calypte anna*	D	RS/AS, CSS, CH, ES
Northern flicker	*Colaptes auratus*	D	CH, OW/S, CW
Acorn woodpecker	*Melanerpes formicivorus*	D	OW/S, CW
Downy woodpecker	*Picoides pubescens*	D	OW/S
Hairy woodpecker	*Picoides villosus*	D	OW/S
Nuttall's woodpecker	*Picoides nuttallii*	D	OW/S, RS/AS, CW
Western kingbird	*Tyrannus verticalis*	D	CSS, CH, OW/S
Cassin's kingbird	*Tyrannus vociferans*	D	CSS, CH, OP
Ash-throated flycatcher	*Myiarchus cinerascens*	D	CSS, CH, GBS
Western wood-pewee	*Contopus sordiduls*	D	OW/S, RS/AS
Black phoebe	*Sayornis nigricans*	D	ES, RS/AS, CW, OP
Pacific-slope flycatcher	*Empidonax difficilis*	D	CW, RS/AS
Tree swallow	*Tachycineta bicolor*	D-F	CSS, OW/S, G, MM, OP
Violet-green swallow	*Tachycineta thalassina*	D-F	CSS, OW/S, G, MM
Northern rough-winged swallow	*Stelgidopteryx serripennis*	D-F	CSS, CH, GBS, G
Cliff swallow	*Hirundo pyrrhonota*	D-F	CSS, CH, MM, P
Barn swallow	*Hirundo rustica*	D	CSS, CH, GBS
Scrub jay	*Aphelocoma coerulescens*	D	CSS, CH, R, DI, P
American crow	*Corvus brachyrhynchos*	D	CSS, G, R, DEV
Common raven	*Corvus corax*	D	OW/S, CSS, CH, G, DEV

TABLE 4
(continued)

Species		Type of Observation[1]	Habitat in which Observed[2]
Common Name	Scientific Name		
Wrentit	*Chamaea fasciata*	D	CSS, CH, ES
Plain titmouse	*Parus inornatus*	D	OW/S, CW
Bushtit	*Psaltriparus minimus*	D	OW/S, RS/AS, CW
House wren	*Troglodytes aedon*	D, N	ES, RS/AS, GBS
White-breasted nuthatch	*Sitta carolinensis*	D	OW/S, CW
Bewick's wren	*Thryomanes bewickii*	D, N	CW, RS/AS, GBS
Canyon wren	*Catherpes mexicanus*	D	CSS, CH
Rock wren	*Salpinctes obsoletus*	D	CSS, CH
Blue-gray gnatcatcher	*Polioptila caerulea*	D	CH, OW/S, CW
Western bluebird	*Sialia mexicana*	D	CSS, OW/S, CW
American robin	*Turdus migratorius*	D	OW/S, G, MM, A
Loggerhead shrike	*Lanius ludovicianus*	D	CSS, CH, G, R, OP
Northern mockingbird	*Mimus polyglottos*	D	OW/S, ES, CW, OP
California thrasher	*Toxostoma redivivum*	D	CSS, CH
Phainopepla	*Phainopepla nitens*	D	OW/S, GBS, RS/AS, CW
European starling	*Sturnus vulgaris*	D, N	OW/S, G, RS/AS, CW, OP
Hutton's vireo	*Vireo huttoni*	D	OW/S, CW
Orange-crowned warbler	*Vermivora celata*	D	OW/S, CW
Common yellowthroat	*Geothlypis trichas*	D	MM, FWM
Black-headed grosbeak	*Pheucticus melanocephalus*	D	OW/S, CW
Blue grosbeak	*Guiraca caerulea*	D, N	CSS, CH, OW/S, CW, ES
Lazuli bunting	*Passerina amoena*	D	OW/S, CW, RS/AS
Rufous-sided towhee	*Pipilo erythrophthalmus*	D	CSS, CH, GBS, RS/AS
California towhee	*Pipilo crissalis*	D	CSS, CH, GBS, ES
Song sparrow	*Melospiza melodia*	D	RS/AS, FWM, GBS

TABLE 4
(continued)

Species		Type of Observation[1]	Habitat in which Observed[2]
Common Name	Scientific Name		
Lark sparrow	*Chondestes grammacus*	D	G, CSS, CH
Rufous-crowned sparrow	*Aimophila ruficeps*	D, N	CSS, CH
Red-winged blackbird	*Agelaius phoeniceus*	D	G, MM, FWM
Tri-colored blackbird	*Agelaius tricolor*	D	G
Brewer's blackbird	*Euphagus cyanocephalus*	D	G, MM, A, DI
Brown-headed cowbird	*Molothrus ater*	D	G, OW/S, RS/AS, CW, MM
Northern oriole	*Icterus galbula*	D	OW/S, CW
Hooded oriole	*Icterus cucullatus*	D	OW/S, CW
House sparrow	*Passer domesticus*	D	R, DEV
American goldfinch	*Carduelis tristis*	D	CSS, CH, OW/S, ES
Lesser goldfinch	*Carduelis psaltria*	D	CSS, CH, GBS, OW/S, CW
Lawrence's goldfinch	*Carduelis lawrencei*	D	CSS, CH, OW/S
House finch	*Carpodacus mexicanus*	D	G, R, DEV
Total species: 73			
MAMMALS			
Raccoon	*Procyon lotor*	T	OW/S, RS/AS, CW, GBS
Coyote	*Canis latrans*	S, T	CSS, CH, OW/S, RW, GBS, DEV
Red/gray fox	*Vulpes fulva/Urocyon cinereoargenteus*	S	OW/S, RS/AS, DI
Bobcat	*Lynx rufus*	D, T	CSS, OW/S, RS/AS
Mountain lion	*Felis concolor*	T	OW/S
California ground squirrel	*Spermophilus beecheyi*	B, D	OW/S, G, GBS, DI, A
California vole	*Microtus californicus*	D	G
California pocket mouse	*Perognathus californicus*	D	CSS, RS/AS

TABLE 4
(continued)

Species		Type of Observation[1]	Habitat in which Observed[2]
Common Name	Scientific Name		
Brush mouse	*Peromyscus boylii*	D	GBS, CSS, OW/S, RS/AS
Pinyon mouse	*Peromyscus truei*	D	OW/S, RS/AS
Deer mouse	*Peromyscus maniculatus*	D	GBS, CSS, CH, OW/S, RS/AS, CW
Pacific kangaroo rat	*Dipodomys agilis*	B, D	CSS, CH, OW/S, RS/AS, CW
Heermann's kangaroo rat	*Dipodomys heermanni*	B, D	CSS, CH, OW/S
Dusky-footed woodrat	*Neotoma fuscipes*	D	OW/S, RS/AS, CW
San Diego desert woodrat	*Neotoma lepida intermedia*	D	CSS, CH
Desert cottontail	*Sylvilagus audubonii*	D	UPL, RS/AS, CW, MM, DEV
Mule deer	*Odocoileus hemionus*	D, S, T	UPL, RS/AS, CW, MM, A
Total species: 17			

1 Type of Observation: B = burrow; D = direct observation; D-F = direct observation in flight only; N = nest or nesting activity; S = scat; T = tracks.

2 Habitat in which Observed:
<u>Native/Natural Habitats</u>

UPL = Observed in all upland habitats (scrub, chaparral, woodland, savanna, grassland, ruderal)
CSS = Coastal sage scrub (includes dense and sparse coastal sage scrub)
CH = Chaparral (includes chamise and mixed chaparral)
GBS = Great Basin scrub
OW/S = Oak woodland/savanna (includes live oak woodland, valley oak woodland, valley oak savanna, and cottonwood/oak woodland)
ES = Elderberry scrub
G = Grassland
R = Ruderal
P = Pond
RS/AS = Riparian scrub/alluvial scrub (includes willow scrub, mulefat scrub, arrowweed scrub, alluvial scrub, and scalebroom scrub)
CW = Cottonwood woodland
MM = Mesic meadow
FWM = Freshwater marsh

TABLE 4
(continued)

Developed Areas

DEV = Observed in all types of developed disturbance
DI = Disturbed
A = Agricultural land
OP = Ornamental planting

TABLE 5

SMALL MAMMALS CAPTURED DURING LIVE-TRAPPING SURVEYS ON THE WEST RANCH[1]

Common Name	Scientific Name	Number Captured at Trap Site					
		1	2	3	4	5	6
California pocket mouse	*Perognathus californicus*				1	2	1
Pacific kangaroo rat	*Dipodomys agilis*	2	4	1	4	1	
Heermann's kangaroo rat	*Dipodomys heermanni*			2	3		
California vole	*Microtus californicus*						1
Deer mouse	*Peromyscus maniculatus*	7	8	1	6	1	2
Pinyon mouse	*Peromyscus truei*	2					
Brush mouse	*Peromyscus boylii*	2	1	1			
Dusky-footed woodrat	*Neotoma fuscipes*					3	2
San Diego desert woodrat	*Neotoma lepida intermedia*		2		1		1

1 Two nights (28, 29 May 1992) of live-trapping with 10 traps each night (20 trap-nights total per trap site).

TABLE 6

WILDLIFE SPECIES DETECTED AT SCENT STATIONS ON THE WEST RANCH[1]

Common Name	Scientific Name	Tracks Observed at Scent Station Number					
		1	2	3	4	5	6
Coyote	*Canis latrans*				X		
Bobcat	*Lynx rufus*		X		X		
Desert cottontail	*Sylvilagus audubonii*	X					
Kangaroo rat	*Dipodomys* sp.	X	X				
California ground squirrel	*Spermophilus beecheyi*		X			X	X
Rodent tracks					X		X

[1] Scent stations monitored during nights of 28, 29 May 1992.

APPENDIX F
Resumes of Professional Staff

Eric Sakowicz
Principal

Mr. Sakowicz is a founding Principal of Impact Sciences, Incorporated. During his 20 years in the field, he has directly participated in the variety of tasks required as part of today's regulatory process. Specific tasks have included on-site technical investigations, environmental document preparation, physical and policy planning studies and permit processing. This variety of experience provides Mr. Sakowicz the ability to develop sound work plans and to establish informed direction.

During the past 15 years, Mr. Sakowicz has managed and has participated in the preparation of numerous Specific Plans of large size and/or technical complexity. Recent planning project's have included the Ormond Beach Specific Plan and EIR (City of Oxnard), the Rancho La Sierra Specific Plan and EIR (City of Riverside), the Wagon Wheel Specific Plan and EIR (City of Oxnard), the Hathaway Ranch Concept Plan (County of Los Angeles), and the California Springs Concept Plan (City of Lancaster). Each of these projects involved a land planning, environmental review and public participation element that were directed by Mr. Sakowicz.

Environmental Impact Reports managed by Mr. Sakowicz have included a variety of projects ranging from hillside residential projects, to restoration of the Los Angeles Grand Central Market. In addition to this range of project types, environmental reports managed by Mr. Sakowicz have occurred in large and small cities and counties throughout California.

Mr. Sakowicz has spoken before the League of California Cities, the American Planning Association, the California State University System and a variety of local organizations and boards. Mr. Sakowicz has also served as planning commission chairman for the City of Fillmore and serves on several design review committees. He is a member and past Secretary of the Association of Environmental Professionals and is a member of the Society of Wetland Scientists.

Mr. Sakowicz graduated with a Bachelor of Science degree in Fisheries Biology from California State University, Humboldt. Prior to forming Impact Sciences, Inc., his work history included staff positions with Teledyne Geotronics, Dames & Moore, the County of Santa Barbara; and was Vice President of Environmental Projects at Envicom Corporation.

Brian W. Arnold

Director of Biological Services

Mr. Arnold serves as Director of Biological Services for Impact Sciences, Inc. In that capacity, he is responsible for directing the biological resources staff, and managing the quality control program for the firm's biological resources capability.

During the past nine years as an environmental consultant, Mr. Arnold has provided endangered species expertise, biological resources consultation, project management, and construction monitoring for a wide range of project types throughout California, such as pipeline and transmission line projects, energy projects, transportation and residential development projects, and landfill and facility siting studies. He is involved in data collection and analysis of impacts to biological resources. He prepares reports, develops mitigation monitoring plans and permitting strategies, and provides permitting assistance and negotiations for such projects. Mr. Arnold routinely provides regulatory compliance analyses with endangered species issues. He has held federal and state permits for scientific survey, collection, and handling of various wildlife species, including officially listed threatened and endangered species, and California species of special concern.

Mr. Arnold graduated with a Bachelor of Science degree in Zoology from the University of California, Santa Barbara. Prior to joining Impact Sciences, Inc., Mr. Arnold had been employed with two environmental consulting firms. He was at Dames & Moore for seven years, most recently as a senior biologist. In addition, he served as a senior biologist at RECON. During this period, he directed a group of up to 15 biologists and managed several large scale biological resources investigations, often for highly visible or controversial projects. In addition, during a seven year period Mr. Arnold worked as a contract biological research specialist for the National Park Service, the National Marine Fisheries Service, the United States Marine Mammal Commission, and UCSB.

While with Dames & Moore, Mr. Arnold was involved with over 140 projects, including the following three examples. He managed a project to develop a sensitive wildlife species database and map the vegetation (especially coastal sage scrub) of the entire County of Orange, using a Geographic Information System (GIS) in support of several subregional Natural Community Conservation Planning (NCCP) efforts. These NCCP efforts focused on coastal sage scrub vegetation-dependent wildlife species such as the coastal California gnatcatcher and coastal populations of San Diego cactus wren.

Mr. Arnold directed the biological investigations and a large team of biologists in an evaluation of threatened and endangered plant and wildlife species populations in a 3,000 square mile area in support of the multi-species Kern County Valley Floor Habitat Conservation Plan (HCP).

Mr. Arnold directed the biological investigations for an Environmental Assessment prepared in support of an ordnance clearance project at the 2,600 acre Mission Trails Regional Park in San Diego for the U.S. Army Corps of Engineers, including preparation of a Biological Assessment document for a Section 7 consultation with the U.S. Fish and Wildlife Service. Issues included endangered species habitat and vernal pools.

Mr. Arnold managed a construction monitoring project for the 9.5-mile Mobil 17 Z Pipeline project, an ancillary pipeline delivering natural gas from the Mojave-Kern River Pipeline through endangered plant and wildlife species habitat in Kern County. He was responsible for development and implementation of a mitigation plan and a mitigation monitoring plan, as well as development and presentation of an endangered species training program to construction workers.

Mr. Arnold has extensive experience as a field biologist, primarily in the areas of mammology, herpetology, and ornithology. He has conducted nearly 37,000 trap-nights of small mammal trapping effort in fourteen California counties, resulting in 5,500 captured and released animals, including over 650 kangaroo rats in six species, and 340 pocket mice in four species. In addition, he has conducted thousands of trap-nights of medium-sized mammal trapping effort for fox, American badger, ringtail, and skunk. He has conducted focused habitat-based surveys for giant, Tipton and Stephens' kangaroo rats. Mr. Arnold has conducted thousands of pitfall trap-nights for reptiles and amphibians, resulting in the capture and release of hundreds of animals. He has conducted focused surveys for blunt-nosed leopard lizard, San Diego horned lizard, and orange-throated whiptail. Mr. Arnold has conducted numerous avian surveys, and conducted bird banding and nest monitoring studies with California gull, black phoebe, and white-crowned sparrow. He has conducted focused surveys for California gnatcatcher, LeConte's thrasher, least Bell's vireo, southwestern willow flycatcher, California spotted owl, and light-footed clapper rail. He has also monitored turkey vulture roosts during nearby construction activities, and has monitored gray whale migration and pinniped haul-out patterns during nearby offshore construction activities.

Mr. Arnold is a member of the American Society of Mammalogists, local chapters of The Wildlife Society, and the California Native Plant Society.

Personnel Associated with the Project and Proof of Permits

A. Statement of Qualifications for RECON Biologists

Gerry Scheid, Senior Biologist (Project Manager; Botantist)

Since 1979, Mr. Scheid has conducted biological and botanical surveys in the states of California and Arizona. His biological work has dealt primarily with surveys for sensitive, rare, and endangered species; vegetation mapping; assessing project-related impacts to biological resources; and working with clients and agencies to prepare mitigation recommendations. Mr. Scheid prepares revegetation programs and conducts restoration monitoring for wetland and upland habitats. He conducts jurisdictional wetland delineations and prepares applications for federal 404 permits for compliance with the Clean Water Act and state 1600-1603 Streambed Alteration Agreements to comply with Fish and Game Code. Mr. Scheid is experienced with Section 7 consultations with the U.S. Fish and Wildlife Service (USFWS) per the Endangered Species Act.

Education/Certifications:

Master of Science, Ecology, San Diego State University, 1986.

Bachelor of Science, Biology, Arizona State University, 1979.

Basic Wetland Delineation Workshop, Wetland Training Institute 1989.

Wetland Delineation in Southern California, Certificate of Training; Huffman and Associates, 1994.

Certified Biologist for the Counties of San Diego and Riverside.

Certified Ecologist, Ecological Society of America.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for Riverside Fairy Shrimp

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for California Gnatcatcher (authorized to work under direct supervision of another permittee)

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill

California Department of Fish and Game Scientific Collector's Permit (#2910)

California Department of Fish and Game Scientific Collector's Permit for Rare and Endangered Plant Species

Rick Eisenbart, Biologist (Project Zoologist)

Mr. Eisenbart has extensive experience in natural communities in the southwestern United States, specifically the states of California, Nevada, and Idaho. He has worked for both the private and public sectors, performing zoological studies on sensitive and endangered species and their habitats. Though knowledgeable of birds and mammals, Mr. Eisenbart specializes in reptiles and amphibians and has extensive experience in identifying rare, sensitive, and endangered species. Mr. Eisenbart is experienced in coordinating biological studies with agencies such as the California Department of Fish & Game (CDFG), U.S. Fish & Wildlife Service (USFWS), and the U.S. Department of the Interior Bureau of Land Management (BLM). His biological expertise in desert areas as well as coastal southern California is a great asset for habitat management planning for development projects in the Southwest. Mr. Eisenbart also has experience in the preparation of habitat restoration plans for wetland and terrestrial habitats of western San Diego County.

Education/Certifications:

Bachelor of Science in Environmental and Systematic Biology, 1989, California Polytechnic State University, San Luis Obispo.

Certified Associate Ecologist, Ecological Society of America.

Certified by the Bureau of Land Management to Conduct Surveys for Flat-tailed Horned Lizard.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-758168 for Stephens' Kangaroo Rat (currently can work under direct supervision of another permittee; permit to work alone pending).

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-777414 for California Gnatcatcher.

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit pursuant to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill.

Memorandum of Understanding (MOU) with the CDFG for Stephens' Kangaroo Rat (pending).

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill.

California Department of Fish and Game Scientific Collector's Permit (#0295).

Pete Famolaro, Biologist (Project Zoologist)

As an experienced field biologist, Mr. Famolaro is responsible for conducting botanical and zoological surveys, including directed surveys for rare and endangered species. He analyzes potential impacts to species and habitat that may result from proposed development and prepares technical reports that provide recommendations to alleviate these impacts. Mr. Famolaro is knowledgeable of both CEQA and NEPA and is skilled in vegetation mapping, mitigation monitoring, wetland delineation according to the U.S. Army Corps of Engineers methodologies, design and implementation of habitat restoration plans, and consultation with resource agencies (California Department of Fish and Game and U.S. Fish and Wildlife Service).

Education/Certifications:

Bachelor of Arts, Resource and Environmental Geography, Minor in Biology/Ecology, San Diego State University (SDSU), 1991. Postbaccalaureate study in Biology, SDSU, 1994.

Certified Associate Ecologist, Ecological Society of America (ESA).

Wetland Training Institute, Basic Wetland Delineation Course, 1993.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for Least Bell's Vireo Surveys and Nest Monitoring

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for California Gnatcatcher for Surveys and Nest Monitoring

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit Pursuant to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill

California Department of Fish and Game Scientific Collector's Permit (#0293)

Julie Vanderwier, Senior Biologist (Project Botanist)

Ms. Vanderwier has over 15 years of experience in botanical analyses, field research, technical reports, and permit applications. She has a diverse background, having worked with the federal government, the University of California, public and private resource agencies, and the private sector. Ms. Vanderwier has considerable experience working with coastal and insular ecosystems in central and southern California.

Education/Certifications:

Master of Science, Biological Sciences (Plant Ecology and Taxonomy), California Polytechnic State University, San Luis Obispo, 1987.

Bachelor of Science, Biological Sciences (Field Biology), California Polytechnic State University, San Luis Obispo, 1977.

Certified as a Biologist for the Counties of San Diego and Riverside, California.

Certified Ecologist, Ecological Society of America.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for California Gnatcatcher Surveys

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for Riverside Fairy Shrimp

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill

California Department of Fish and Game Scientific Collector's Permit (#2909)

California Department of Fish and Game Scientific Collector's Permit for Rare and Endangered Plant Species

Jessa Netting, Biologist (Project Entomologist)

Ms. Netting has conducted biological resource surveys in many ecosystems including desert, coastal sage scrub, and chaparral, and has prepared documentation of the results. She has prepared revegetation plans for upland and riparian habitats and restoration plans for vernal pools. Her field experience has concentrated on southern California and Arizona. She coordinates with state and federal agencies, local jurisdictions, and clients concerning biological resources. In addition to her work at RECON, Ms. Netting has conducted extensive research on animal species including arthropods, amphibians, reptiles, birds, and mammals. She is a member of the following entomological organizations: Xerces Society and Lorquin Society.

Education/Certifications:

Bachelor of Science, Zoology, University of California at Davis, 1991.

Certified Associate Ecologist, Ecological Society of America.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-777414 for California Gnatcatcher (pending).

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-777414 for Riverside Fairy Shrimp.

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit Pursuant to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill.

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill.

California Department of Fish and Game Scientific Collector's Permit (#0294).

Bobbie Stephenson, Manager, Resources Group (Project Zoologist)

Ms. Stephenson has conducted biological surveys for sensitive, rare, and endangered species; assessed project-related impacts to biological resources; and conducted mitigation planning since 1981. Ms. Stephenson has also prepared revegetation plans and monitoring programs for the restoration of disturbed terrestrial habitats and has prepared permit applications for the California Department of Fish and Game (CDFG) and the U.S. Army Corps of Engineers (USACE). Her field experience includes chaparral, coastal sage scrub riparian, vernal pool, and other habitats in coastal southern California as well as desert projects in Arizona and California. She has extensive experience with sensitive species surveys, vegetation mapping, ecological resources evaluation, impact analysis, Section 401/404 for the Clean Water Act, Section 7 (Endangered Species Act) consultation with USFWS, and CDFG 1601-1603 Streambed Alteration Agreements.

Education/Certifications:

Master of Science, Biology, Botany emphasis, San Diego State University, 1985.

Bachelor of Science, Botany (minor in geology), San Diego State University, 1981.

Certified Biologist for the Counties of San Diego and Riverside.

Certified Ecologist, Ecological Society of America.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for Least Bell's Vireo Surveys

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for California Gnatcatcher Surveys

U.S. Fish and Wildlife Service Desert Tortoise Handling Permit to Biological Opinion (1-6-92-F-39) for Eagle Mountain Landfill

Memorandum of Understanding with the California Department of Fish and Game Related to Desert Tortoise at Eagle Mountain Landfill

California Department of Fish and Game Scientific Collector's Permit (#1329)

Mark Dodero, Biologist (Project Zoologist, Small Mammals)

As an experienced field biologist for over 17 years, Mr. Dodero is responsible for conducting botanical and zoological surveys, including directed surveys for rare and endangered species such as desert tortoise, coastal California gnatcatcher, and least Bell's vireo. He has had extensive small-mammal trapping experience, which includes tagging small mammals. Mr. Dodero also performs vegetation mapping of sensitive species habitats including the Stephens' kangaroo rat. He analyzes potential impacts to species and habitat which may result from proposed development and prepares technical reports which provide recommendations to alleviate these impacts. Mr. Dodero also prepares mitigation and monitoring plans for sensitive species.

Education/Certifications:

Master's Program, Systematic Botany, San Diego State University, 1988 to present.

Teaching Credential, Secondary Education, San Diego State University, 1985.

Bachelor of Science, Zoology, San Diego State University, 1983.

Associate of Arts, Life Science, San Diego City College, 1980.

Certified by Bureau of Land Management for flat-tailed horned lizard surveys, 1994.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-702631 for Least Bell's Vireo and California Gnatcatcher with State Parks (can work under direct supervision of another permittee).

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-777414 for California Gnatcatcher (pending).

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-758168 for Stephens' Kangaroo Rat (pending).

Memorandum of Understanding with the California Department of Fish and Game for Stephens' Kangaroo Rat (pending).

Memorandum of Understanding with CDFG for California Gnatcatcher, Least Bell's Vireo, Willow Flycatcher, and San Diego Cactus Wren.

California Department of Fish and Game Scientific Collector's Permit (#9359).

Terri Ayers, Biologist (Project Assistant)

Ms. Ayers is an experienced geographic information system (GIS) technician for ARC/INFO computer applications. Her responsibilities include mapping sensitive environmental resources and entering geographical information into a digital database system for the analysis of potential impacts upon sensitive resources and for applied land use planning. She has served as the supervising technician in the construction of numerous digital databases for large-scale environmental and planning applications. She also conducts field surveys for sensitive plant and animal species and has participated in the U.S. Fish and Wildlife Service (USFWS)-authorized demonstration on the proper methods for handling desert tortoise eggs and constructing artificial desert tortoise burrows.

Education/Certifications:

Master of Arts, San Diego State University, Geography with an emphasis in biogeography and GIS, expected 1995.

Bachelor of Arts, California State University, Geography, 1987.

Bachelor of Arts, California State University, Environmental Studies, 1984.

Permits:

U.S. Fish and Wildlife Service 10(a)(1)(A) Permit #PRT-797665 for California Gnatcatcher Surveys (authorized to work under direct supervision of another permittee)

APPENDIX G
Site Flora

Appendix G
Plant Species Observed on the Newhall Ranch Property

Scientific Name/Family	Common Name	Origin
Amaranthaceae Amaranth Family		
Amaranthus albus L.	Tumbleweed	I
Anacardiaceae Sumac or Cashew Family		
Rhus ovata Wats.	Sugar bush	N
Rhus trilobata Torrey & A. Gray	Skunkbrush	N
Schinus molle L.	Peruvian pepper tree	I
Toxicodendron diversilobum (Torrey & A. Gray) E. Greene	Western poison oak	N
Apiaceae Carrot Family		
Apium graveolens L.	Celery	I
Bowlesia incana Ruiz Lopez & Pavon	Bowlesia	N
Coriandrum sativum L.	Coriander, Cilantro	I
Lomatium utriculatum (Torrey & A. Gray) J. Coulter & Rose	Bladder parsnip	N
Sanicula bipinnata Hook. & Arn.	Poison sanicle	N
Apocynaceae Dogbane Family		
Apocynum cannabinum L.	Indian hemp	N
Asclepidaceae Milkweed Family		
Asclepias californica E. Greene	California or Round-hooded milkweed	N
Asclepias fascicularis Decne.	Narrow-leaf milkweed	N
Asteraceae Sunflower Family		
Acourtia microcephala DC.	Purple-head, Sacapellote	N
Ambrosia acanthicarpa Hook.	Annual bur-sage	N
Ambrosia psilostachya DC.	Western ragweed	N
Artemisia californica Less.	California sagebrush	N
Artemisia douglasiana	Mugwort	N
Artemisia dracunculus L.	Tarragon	N
Artemisia tridentata Nutt. ssp. *tridentata*	Big sagebrush	N
Baccharis emoryi A. Gray	Chaparral broom	N
Baccharis pilularis DC.	Coyote bush	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Asteraceae Sunflower Family (con't.)		
Baccharis salicifolia (Ruiz Lopez & Pavón) Pers.	Mule fat, seep-willow	N
Brickellia californica (Torrey & A. Gray) A. Gray	California brickellbush	N
Centaurea melitensis L.	Tocalote	I
Chaenactis glabriuscula DC. var. *glabriuscula*	Yellow pincushion	N
Chamomilla suaveolens (Pursh) Rydb.	Pineapple weed	I
Cirsium occidentale (Nutt.) Jepson var. californicum (A. Gray) Keil & C. Turner	California thistle	N
Cirsium vulgare (Savi) Ten.	Bull thistle	I
Cnicus benedictus L.	Blessed thistle	I
Conyza canadensis (L.) Cronq.	Horseweed	N
Coreopsis bigelovii (A. Gray) H.M. Hall	Desert coreopsis	N
Cotula australis (Sieber) Hook.f.	Australian brass-buttons	I
Cotula coronopifolia L.	Brass-buttons	I
Encelia californica Nutt.	Common encelia	N
Ericameria palmeri (A. Gray) H.M. Hall var. *pachylepis* (H.M. Hall) G. Nesom	Goldenbush	N
Erigeron foliosus Nutt. var. *foliosus*	Leafy fleabane	N
Eriophyllum confertiflorum (DC.) A. Gray var. *confertiflorum*	Golden-yarrow	N
Filago arizonica A. Gray	Arizona filago	N
Filago californica Nutt.	California filago, Fluffweed	N
Gnaphalium luteo-album L.	Everlasting	I
Hazardia squarrosa (Hook. & Arn.) E. Greene var. *grindelioides* (DC.) Clark	Saw-toothed goldenbush	N
Helianthus annuus L.	Common sunflower	N
Helianthus gracilentus A. Gray	Slender sunflower	N
Hemizonia fasciculata (DC.) Torrey & Gray	Tarplant	N
Heterotheca grandiflora Nutt.	Telegraph weed	N
Hypochaeris glabra L.	Smooth cat's-ear	I
Isocoma menziesii (Hook. & Arn.) G. Nesom var. *vernonioides* (Nutt.) G. Nesom	Coast goldenbush	N
Iva axillaris Pursh ssp. *robustior* (Hook.) Bassett	Poverty weed	N
Lactuca serriola L.	Prickly lettuce	I
Lasthenia californica Lindley	Goldfields	N
Layia glandulosa (Hook.) Hook. & Arn.	White layia	N
Layia platyglossa (F. & M.) A. Gray	Tidy-tips	N
Lepidospartum squamatum (A. Gray) A. Gray	Scale-broom	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Asteraceae Sunflower Family (con't.)		
Lessingia filaginifolia (Hook. & Arn.) M.A. Lane var. *filaginifolia*	California-aster	N
Lessingia lemmonii A. Gray var. *lemmonii*	Lessingia	N
Malacothrix saxatilis (Nutt.) Torrey & A. Gray var. *tenuifolia* (Nutt.) A. Gray	Malacothrix	N
Pluchea odorata (L.) Cass.	Salt marsh fleabane	N
Pluchea sericea (Nutt.) Cov.	Arrow weed	N
Rafinesquia californica Nutt.	California chicory	N
Senecio californicus DC.	California groundsel	N
Senecio flaccidus Less. var. *douglasii* (DC.) B. Turner & T. Barkley	Sandwash groundsel	N
Senecio vulgaris L.	Common groundsel	I
Silybum marianum (L.) Gaertner	Milk thistle	I
Solidago confinis Nutt.	Southern goldenrod	N
Sonchus asper (L.) Hill ssp. *asper*	Prickly sow thistle	I
Sonchus oleraceus L.	Common sow thistle	I
Stephanomeria virgata Benth. ssp. *virgata*	Slender stephanomeria	N
Tetradymia comosa A. Gray	Cotton-thorn	N
Uropapus lindleyi (DC.) Nutt.	Silver puffs	N
Xanthium spinosum L.	Spiny cocklebur	N
Xanthium strumarium L.	Cocklebur	N
Betulaceae Birch Family		
Alnus rhombifolia Nutt.	White alder	N
Boraginaceae Borage Family		
Amsinckia menziesii (Lehm.) Nelson & J.F. Macbr. var. *intermedia* (Fischer & C. Meyer) Ganders	Rancher's fireweed	N
Amsinckia menziesii (Lehm.) Nelson & J.F. Macbr. var. *menziesii*	Rancher's fireweed	N
Cryptantha sp.	Cryptantha	N
Heliotropium curassavicum L.	Chinese pusley	N
Pectocarya linearis (Ruiz Lopez & Pavon) DC. ssp. *ferocula*	Comb-bur	N
Plagiobothrys nothofulvus (A. Gray) A. Gray	Popcornflower	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Brassicaceae Mustard Family		
Brassica nigra (L.) Koch.	Black mustard	I
Capsella bursa-pastoris (L.) Medikus	Shepard's purse	I
Erysimum capitatum (Douglas) E. Greene ssp. *capitatum*	Western wallflower	N
Hirschfeldia incana (L.) Lagr.-Fossat	Short-pod mustard	I
Lepidium virginicum L. var. *virginicum*	Tall peppergrass	I
Raphanus sativus L.	Radish	I
Rorippa nasturtium-aquaticum (L.) Hayek	Water cress	I
Sisymbrium altissimum L.	Tumble or Jim Hill mustard	I
Sisymbrium irio L.	London rocket	I
Sisymbrium officinale L.	Hedge mustard	I
Sisymbrium orientale L.	Mustard	I
Thysanocarpus laciniatus Torrey & A. Gray	Lacepod	N
Tropidocarpum gracile Hook.	Dobie pod	N
Cactaceae Cactus Family		
Opuntia basilaris Engelm. & Bigel. var. *basilaris*	Beavertail cactus	N
Opuntia littoralis (Engelm.) Cockerell.	Shore cactus	N
Opuntia prolifera Engelm.	Cholla	N
Capparaceae Caper Family		
Isomeris arborea Nutt.	Bladderpod	N
Caprifoliaceae Honeysuckle Family		
Lonicera interrupta Benth.	Chaparral honeysuckle	N
Sambucus mexicana C. Presl	Blue elderberry	N
Caryophyllaceae Pink Family		
Silene gallica L.	Windmill pink	I
Spergularia bocconii (Scheele) Merino.	Sand spurrey	I
Spergularia marina (L.) Griseb.	Salt marsh sand spurrey	N
Stellaria media (L.) Villars	Common chickweed	I

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Chenopodiaceae Goosefoot Family		
Atriplex canescens (Parsh) Nutt.	Fourwing saltbush, shad-scale	N
Atriplex lentiformis (Torrey) S. Watson ssp. *lentiformis*	Big saltbush	N
Atriplex semibaccata R.Br.	Australian saltbush	I
Atriplex triangularis Willd.	Spearscale	N
Bassia hyssopifolia (Pall.) Kuntze	Bassia	I
Chenopodium album L.	Lamb's quarters, pigweed	I
Chenopodium ambrosioides L.	Mexican tea	I
Chenopodium botrys L.	Jerusalem oak	I
Chenopodium californicum (S. Watson) S. Watson	California pigweed	N
Halogeton glomeratus (M. Bieb.) C. Meyer	Halogeton	I
Salsola tragus L.	Russian thistle, tumbleweed	I
Convolvulaceae Morning-glory Family		
Calystegia macrostegia (E. Greene) Brummitt ssp. *cyclostegia* (House) Brum.	Chaparral morning-glory	N
Calystegia macrostegia (E. Greene) Brummitt ssp. *intermedia* (Abrams) Brum.	Chaparral morning-glory	N
Calystegia peirsonii (Abrams) Brummitt	Peirson's morning-glory	N
Convolvulus arvensis L.	Bindweed, Orchard morning-glory	I
Cressa truxillensis Kunth.	Alkali weed	N
Crassulaceae Stonecrop Family		
Crassula connata (Ruiz Lopez & Pavon) A. Berger	Pygmy-weed	N
Dudleya lanceolata (Nutt.) Britt. & Rose	Live-for-ever	N
Cucurbitaceae Gourd Family		
Cucurbita foetidissima Kunth	Calabazilla	N
Marah macrocarpus (E. Greene) E. Greene	Wild cucumber	N
Cuscutaceae Dodder Family		
Cuscuta californica Hook. & Arn. var. *californica*	Dodder	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Cyperaceae Sedge Family		
Carex praegracilis W. Boott	Sedge	N
Cyperus involucratus Rottb.	Umbrella plant	I
Eleocharis parishii Britton	Parish spikerush	N
Scirpus acutus Bigelow var. *occidentalis* (S. Watson) Beetle	Bulrush	N
Scirpus americanus Pers.	Three-square	N
Scirpus maritimus L.	Prairie bulrush	N
Ericaceae Heath Family		
Arctostaphylos glandulosa Eastw.	Manzanita	N
Arctostaphylos glauca Lindley	Big-berried manzanita	N
Euphorbiaceae Spurge Family		
Chamaesyce polycarpa (Benth.) Millsp.	Spurge	N
Croton californicus Muell.-Arg.	California croton	N
Eremocarpus setigerus (Hook.) Benth.	Dove weed	N
Ricinus communis L.	Castor bean	I
Stillingia linearifolia S. Watson	Desert stillingia	N
Fabaceae Legume Family		
Astragalus didymocarpus Hook. & Arn. var. *didymocarpus*	Twin locoweed	N
Astragalus trichopodus (Nutt.) A.Gray var. *phoxus*	Locoweed	N
Lathyrus vestitus Nutt. var. *vestitus*	Wild pea	N
Lotus hamatus E. Greene	Grab lotus	N
Lotus scoparius (Nutt. in Torrey & A. Gray) Ottley var. *scoparius*	California broom	N
Lotus strigosus (Nutt.) E. Greene	Bishop's lotus	N
Lotus wrangelianus Fischer & C. Meyer	Lotus	N
Lupinus andersonnii S. Watson	Lupine	N
Lupinus bicolor Lindl.	Miniature lupine	N
Lupinus excubitus M.E. Jones var. *hallii* (Abrams) C.P. Smith	Grape soda lupine	N
Lupinus hirsutissimus Benth.	Stinging lupine	N
Lupinus microcarpus Sims var. *densiflorus* (Benth.) Jepson	Chick lupine	N
Lupinus microcarpus Sims var. *microcarpus*	Chick lupine	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Fabaceae Legume Family (con't.)		
Lupinus sparsiflorus Benth.	Coulter's lupine	N
Lupinus succulentus Koch	Arroyo lupine	N
Lupinus truncatus Hook. & Arn.	Chaparral lupine	N
Medicago orbicularis (L.) Bartal.	Burclover	I
Medicago polymorpha L.	California bur clover	I
Melilotus alba Medikus	White sweet clover	I
Melilotus indica (L.) All.	Sourclover	I
Trifolium albopurpureum Torrey & A. Gray var. *albopurpureum*	Rancheria clover	N
Trifolium fucatum Lindley	Bull clover	N
Trifolium gracilentum Torrey & A. Gray var. *gracilentum*	Pin-point clover	N
Trifolium willdenovii Sprengel	Tomcat clover	N
Vicia americana Willd. var. *americana*	American vetch	N
Vicia villosa Roth ssp. *varia* (Host) Corbiere	Winter vetch	I
Fagaceae Oak Family		
Quercus agrifolia Nee	Coast live oak, Encina	N
Quercus berberidifolia Liebm.	Scrub oak	N
Quercus lobata Nee	Valley oak, Roble	N
Geraniaceae Geranium Family		
Erodium botrys (Cav.) Bertol.	Pin-clover	I
Erodium cicutarium (L.) L. Her.	White-stemmed filaree	I
Erodium moschatum (L.) L. Her.	Green-stemmed filaree	I
Grossulariaceae Gooseberry Family		
Ribes aureum Pursh var. *gracillimum* (Cov. & Britton) Jepson	Golden current	N
Ribes malvaceum Sm. (J.C.) var. *malvaceum*	Chaparral current	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Hydrophyllaceae Waterleaf Family		
Emmenanthe penduliflora Benth. var. *penduliflora*	Whispering bells	N
Eriodictyon trichocalyx A.A. Heller var. *trichocalyx*	Hairy yerba santa	N
Eucrypta chrysanthemifolia (Benth.) E. Greene var. *chysanthemifolia*	Eucrypta	N
Phacelia cicutaria E. Greene var. *hispida* (A. Gray) J. Howell	Caterpillar phacelia	N
Phacelia ramosissima Lehm. var. *latifolia* (Torrey) Cronq.	Shrubby phacelia	N
Phacelia tanacetifolia Benth.	Phacelia	N
Phacelia viscida (Benth.) Torrey	Sticky phacelia	N
Pholistoma auritum (Lindley) Lilja var. *auritum*	Fiesta flower	N
Juncaceae Rush Family		
Juncus bufonius L. var. *bufonius*	Toad rush	N
Juncus mexicanus Willd.	Mexican rush	N
Juncus xiphioides E. Meyer	Iris-leaved rush	N
Juglandaceae Walnut Family		
Juglans californica S. Watson var. *californica*	Southern California black walnut	N
Lamiaceae Mint Family		
Lamium amplexicaule L.	Dead nettle, henbit	I
Marrubium vulgare L.	Horehound	I
Monardella lanceolata A. Gray	Mustang mint	N
Salvia apiana Jepson	White sage	N
Salvia columbariae Benth.	Chia	N
Salvia leucophylla E. Greene	Purple sage	I
Salvia mellifera E. Greene	Black sage	N
Trichostema lanatum Benth.	Woolly bluecurls	N
Trichostema lanceolatum Benth.	Vinegar weed	N
Lauraceae Laurel Family		
Umbellularia californica (Hook. & Arn.) Nutt.	California bay	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Lemnaceae		
Lemna sp.	Duckweed	N
Liliaceae Lily Family		
Asparagus officinalis L. ssp. *officinalis*	Garden asparagus	I
Bloomeria crocea (Torrey) Cov.	Common goldenstar	N
Calochortus clavatus S. Watson ssp. *clavatus*	Club-haired mariposa lily	N
Calochortus venustus Benth.	Mariposa lily	N
Chlorogalum pomeridianum (DC.) Kunth var. *pomeridianum*	Soap plant, amole	N
Dichelostemma capitatum Alph. Wood	Blue dicks	N
Yucca whipplei Torrey	Our Lord's candle	N
Lythraceae Loosestrife Family		
Lythrum californicum Torrey & A. Gray	California loosestrife	N
Lythrum hyssopifolium L.	Grass poly	N
Malvaceae Mallow Family		
Malacothamnus fasciculatus (Torrey & A. Gray) E. Greene	Chaparral mallow	N
Malva parviflora L.	Cheeseweed, little mallow	I
Myrtaceae Myrtle Family		
Eucalyptus spp.	Eucalyptus	I
Nyctaginaceae Four O'Clock Family		
Mirabilis californica A. Gray	Wishbone bush	N
Onagraceae Evening Primrose Family		
Camissonia bistorta (Torrey & A. Gray) Raven	California sun cup	N
Camissonia boothii (Douglas) Raven ssp. *decorticans* (Hook. & Arn.) Raven	Shredding evening primrose	N
Camissonia californica (T.& G.) Raven	False-mustard	N
Camissonia strigulosa (Fischer & C. Meyer) Raven	Sun cup	N
Clarkia bottae (Spach) Harlan Lewis & M. Lewis	Punchbowl godetia	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Onagraceae Evening Primrose Family (con't)		
Clarkia epilobioides (Nutt.) Nelson & J.F. Macbr.	Canyon godetia	N
Clarkia purpurea (Curtis) Nelson & J.F. Macbr. ssp. *purpurea*	Valley godetia	N
Clarkia unguiculata Lindley	Elegant clarkia	N
Epilobium ciliatum Ref. ssp. *ciliatum*	Sticky willowweed	N
Oenothera californica (Wats.) Watson	California evening primrose	N
Paeoniaceae Peony Family		
Paeonia californica Torrey & A. Gray	Peony	N
Papaveraceae Poppy Family		
Argemone munita Durand & Hilg.	Chicalote	N
Dendromecon rigida Benth.	Bush poppy	N
Eschscholzia californica Cham.	California poppy	N
Platystemon californicus Benth.	Cream-cups	N
Plantaginaceae Plantain Family		
Plantago erecta Morris	Dot-seed plantain	N
Plantago lanceolata L.	English plantain	I
Plantago major L.	Common plantain	I
Platanaceae Plane Tree, Sycamore Family		
Platanus racemosa Nutt.	Western sycamore	N
Poaceae Grass Family		
Agrostis gigantea Roth	Redtop	I
Arundo donax L.	Giant reed	I
Avena barbata Link	Slender wild oat	I
Avena fatua L.	Wild oat	I
Bromus diandrus Roth.	Ripgut grass	I
Bromus hordaceus L.	Smooth brome	I
Bromus madritensis L. ssp. *rubens* (L.) Husnot	Foxtail chess	I

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Poaceae Grass Family (con't.)		
Bromus tectorum L.	Cheat grass, downy brome	I
Cynodon dactylon (L.) Pers.	Bermuda grass	I
Distichlis spicata (L.) E. Greene	Saltgrass	N
Echinochloa crus-galli (L.) P. Beauv.	Barnyard grass	I
Eragrostis mexicana (Hornem.) Link ssp. *virescens* (C. Presl) Koch & Sanchez	Orcutt eragrostis	N
Hordeum marinum Hudson ssp. *gussoneanum*	Mediterranean barley	I
Hordeum murinum L. ssp. *leporinum* (Link) Arcang	Wild barley	I
Hordeum vulgare L.	Common barley	I
Koeleria macrantha (Ledeb.) J.A. Shultes	Junegrass	N
Lamarckia aurea (L.) Moench.	Goldentop	I
Leptochloa uninervia (C. Presl) A. Hitchc. & Chase	Mexican sprangletop	I
Leymus condensatus (C. Presl) A. Love	Giant ryegrass	N
Leymus triticoides (Buckley) Pilger	Beardless wild rye	N
Lolium multiflorum L.	Italian ryegrass	I
Lolium perenne L.	Perennial ryegrass	I
Melica imperfecta Trin.	California melic	N
Nassella lepida (A. Hitchc.) Barkworth	Foothill needlegrass	N
Nassella pulchra (A. Hitchc.) Barkworth	Purple needlegrass	N
Paspalum distichum L.	Knot grass	N
Phalaris canariensis L.	Canary grass	I
Poa annua L.	Annual bluegrass	I
Polypogon monspeliensis (L.) Desf.	Annual beard grass	I
Schismus barbatus (L.) Thell.	Mediterranean grass	I
Vulpia myuros (L.) var. *myuros*	Rattail fescue	I
Vulpia octoflora (Walt.) Rydb. var. *octoflora*	Six-weeks fescue	N
Polemoniaceae Phlox Family		
Allophyllum divaricatum (Nutt.) A.D. Grant & V. Grant	Allophyllum	N
Eriastrum densifolium (Benth,) H. Mason ssp. *mohavense*	Woolystar	N
Eriastrum sapphirinum (Eastw.) H. Mason	Sapphire eriastrum	N
Gilia achilleifolia Benth. ssp. *achilleifolia*	Blue gilia	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Polemoniaceae Phlox Family (con't.)		
Gilia capitata Sims ssp. *abrotanifolia* (E. Greene) V. Grant	Ball gilia	N
Leptodactylon californicum Hook. & Arn.	Prickly phlox	N
Linanthus parviflorus (Benth.) E. Greene.	???linanthus	N
Navarretia atractyloides (Benth.) Hook. & Arn.	Prickly navarretia	N
Polygonaceae Buckwheat Family		
Chorizanthe staticoides Benth.	Turkish rugging	N
Chorizanthe xantii S. Watson var. *xantii*	Spineflower	N
Eriogonum elongatum Benth. var. *elongatum*	Long-stemmed eriogonum	N
Eriogonum fasciculatum Benth. var. *fasciculatum*	California buckwheat	N
Eriogonum fasciculatum Benth. var. *foliolosum* (Nutt.) Abrams	California buckwheat	N
Eriogonum fasciculatum Benth. var. *polifolium* (A. DC.) Torrey & A. Gray	California buckwheat	N
Eriogonum gracile Benth. var. *gracile*	Slender buckwheat	N
Polygonum argyrocoleon Kunze	Knotweed, smartweed	I
Polygonum arenastrum Boreau	Common knotweed, doorweed	I
Polygonum lapathifolium L.	Willow weed	N
Pterostegia drymarioides Fischer & C. Meyer	California thread-stem	N
Rumex acetosella L.	Sheep sorrel	I
Rumex crispus L.	Curly dock	I
Rumex hymenosepalus Torrey	Wild rhubarb, canaigre	N
Portulacaceae Purslane Family		
Calandrinia ciliata (Ruiz Lopez & Pavon) DC.	Red maids	N
Claytonia perfoliata Willd.	Miner's lettuce	N
Pteridaceae Brake Family		
Adiantum jordani K.Mull.	California maiden-hair fern	N
Pentagramma triangularis (Kaulf.) G. Yatskievych, M.D. Windham & E. Wollenweber ssp. *triangularis*	Goldback fern	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Ranunculaceae Buttercup Family		
Clematis pauciflora Nutt.	Ropevine	N
Delphinium parryi A. Gray ssp. *parryi*	Parry's larkspur	N
Rhamnaceae Buckthron Family		
Ceanothus crassifolius Torrey	Hoaryleaf ceanothus	N
Ceanothus leucodermis E. Greene	Chaparral whitehorn	N
Ceanothus oliganthus Nutt. var. *oliganthus*	Ceanothus	N
Rhamnus crocea Nutt.	Spiny redberry	N
Rhamnus ilicifolia Kell.	Holly-leaf redberry	N
Rosaceae Rose Family		
Adenostoma fasciculatum Hook. & Arn.	Chamise	N
Cercocarpus betuloides Torrey & A. Gray Birch-Leaf	Mountain-mahogany	N
Heteromeles arbutifolia (Lindley) Roemer	Toyon, Christmas berry	N
Prunus ilicifolia (Nutt.) Walp. ssp. *ilicifolia*	Holly-leafed cherry, Islay	N
Prunus virginiana L. var. *demissa* (Nutt.) Torrey	Western choke-cherry	N
Rosa californica C. & S.	California rose	N
Rubus ursinus C. & S.	California blackberry	N
Rubiaceae Madder Family		
Galium angustifolium Nutt. *angustifolium*	Narrow-leaf bedstraw	N
Galium aparine L.	Goose grass	I
Galium nuttallii A. Gray ssp. *nuttallii*	San Diego bedstraw	N
Salicaceae Willow Family		
Populus balsamifera L. ssp. *trichocarpa* (Torrey & A. Gray) Brayshaw	Black cottonwood	N
Populus fremontii Wats. ssp. *fremontii*	Fremont cottonwood, alamo	N
Salix exigua Nutt.	Narrow-leaved willow	N
Salix laevigata Bebb	Red willow	N
Salix lasiolepis Benth.	Arroyo willow	N

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Selaginellaceae Spike-moss Family		
Selaginella bigelovii L. Underw.	Bigelow clubmoss	N
Saururaceae Lizard's-tail Family		
Anemopsis californica (Nutt.) Hook. & Arn.	Yerba mansa	N
Scrophulariaceae Figwort Family		
Antirrhinum coulterianum Benth.	White snapdragon	N
Castilleja affinis Hook. & Arn. ssp. *affinis*	Indian paint brush	N
Castilleja exserta (A.A. Heller) Chuang & Heckard	Purple owl's clover	N
Collinsia heterophylla Buist.	Chinese houses	N
Collinsia parryi A. Gray	Collinsia	N
Cordylanthus rigidus (Benth.) Jepson ssp. *setigerus* Chuang & Heckard	Thread-leaved bird's beak	N
Keckiella cordifolia (Benth.) Straw	Climbing penstemon	N
Mimulus aurantiacus Curtis	Bush monkeyflower	N
Mimulus brevipes Benth.	Hillside monkeyflower	N
Mimulus guttatus DC.	Common monkeyflower	N
Mimulus pilosus (Benth.) S. Watson	False monkeyflower	N
Penstemon centranthifolius (Benth.) Benth.	Scarlet bugler	N
Penstemon heterophyllus Lindley var. *heterophyllus*	Foothill penstemon	N
Veronica anagallis-aquatica L.	Water speedwell	I
Solanaceae Nightshade Family		
Datura wrightii Regel	Jimson weed	N
Nicotiana glauca Grah.	Tree tobacco	I
Nicotiana quadrivalvis Pursh	Indian tobacco	N
Solanum americanum Miller	Nightshade	I
Solanum douglasii Dunal	Douglas nightshade	N
Solanum xanti A. Gray	Purple nightshade	N
Tamaricaceae Tamarisk Family		
Tamarix sp.	Tamarisk	I

Appendix G (con't.)
Plant Species Observed on the Newhall Ranch Property

Family/Scientific Name	Common Name	Origin
Typhaceae Cattail Family		
Typha latifolia L.	Broad-leaved cattail	N
Urticaceae Nettle Family		
Urtica dioica L. ssp. *holosericea* (Nutt.) Thorne	Hoary nettle	N
Urtica urens L.	Dwarf nettle	I
Verbanaceae Vervain Family		
Verbena lasiostachys Link.	Western vervain	N
Violaceae Violet Family		
Viola pedunculata Torrey & A. Gray	Johnny-jump-up	N
Viscaceae Mistletoe Family		
Phoradendron macrophyllum (Englm.) Cockerell	Big leaf mistletoe	N
Vitaceae Grape Family		
Vitis girdiana Munson	Desert wild grape	N
Zygophyllaceae Caltrop Family		
Tribulus terrestris L.	Puncture vine	I

N - Native species
I - Introduced species

APPENDIX H
Site Fauna

Appendix H
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Habitat	Wi	Sp	Su	Au
PODICIPEDIDAE	GREBES							
Podilymbus podiceps	Pied-billed Grebe			Aq	C	C	U?	C
ARDEIDAE	HERONS and EGRETS							
Ixobrychus exilis hesperis	Least Bittern	C2/SC		Aq,Gr/OS,RW	U	U	U	U
Ardea herodias herodias	Great Blue Heron		O	Aq,Gr/OS,RW	C	C	C*	C
Casmerodius albus	Great Egret		O	Aq,Gr/OS,RW	U	U	R	U
Egretta thula thula	Snowy Egret		O	Aq,Gr/OS,RW	U	U	R	U
Bubulcus ibis	Cattle Egret			Gr/OS	R	R		R
Butorides virescens	Green Heron		O	Aq,OR,RW	U	U	U	U
Nycticorax nycticorax hoactli	Black-crowned Night-heron		O	Aq,OR,RW	C	C	C	C
ANATIDAE	GEESE and DUCKS							
Dendrocygna bicolor	Fulvous Whistling-duck	C2/SC		Aq/RW	U	U		
Anas crecca	Green-winged Teal		O	Aq,RW	C	C	R	C
Anas cyanoptera	Cinnamon Teal			Aq,RW	C	C	U	C
Anas platyrhynchos platyrhynchos	Mallard		O	Aq,RW	C	C	C?	C
Anas americana	American Wigeon			Aq,RW	C	C	Ca	C
Oxyura jamaicensis	Ruddy Duck			Aq,RW	C	C	U	C
CATHARTIDAE	VULTURES							
Cathartes aura	Turkey Vulture		O	RW,Gr/OS,Sc	C	C	C?	U
ACCIPITRIDAE	HAWKS and EAGLES							
Elanus leucurus	White-tailed Kite	SP	O	RW,Gr/OS,OR. Sc	U	U	U?	U
Circus cyaneus	Northern Harrier	SC	O	RW,Gr/OS,OR	U	U	R?	U
Accipiter striatus	Sharp-shinned Hawk	SC		RW,Gr/OS,Sc	U	U		U
Accipiter cooperii	Cooper's Hawk	SC	O	RW,Gr/OS,Sc	U	U	R*	U
Buteo lineatus elegans	Red-shouldered Hawk		O	RW,Gr/OS,Sc,OR	U	U	U?	U
Buteo jamaicensis	Red-tailed Hawk		O	RW,GR/OS,Sc	U	U	U?	U
Buteo swainsoni	Swainson's Hawk	ST		RW,Gr/OS,OR		Ca		Ca

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Habitat	Wi	Sp	Su	Au
ACCIPITRIDAE (cont.)	HAWKS and EAGLES							
Buteo regalis	Ferruginous Hawk	C2		Gr/OS	R		R	
Aquila chrysaetos	Golden Eagle	SC/SP		Gr/OS,Sc	R	R	U	R
Falco sparverius	American Kestrel		O	RW,Gr/OS,OR,Sc	C	C	C*	C
Falco columbarius	Merlin	SC		Gr/OS,OR,Sc	U			U
Falco mexicanus	Prairie Falcon	SC		Gr/OS,OR,Sc	R	R	R?	R
Falco peregrinus anatum	American Peregrine Falcon	FE/SE		Gr/OS,OR	R	R	R	R
PHASIANIDAE	QUAIL							
Callipepla californica californica	California Quail		O	RW,Gr/OS,Sc	C	C	C*	C
RALLIDAE	RAILS and COOTS							
Porzana carolina	Sora			Aq	U	U		U
Fulica americana	American Coot			Aq	C	C	C*	C
CHARADRIIDAE	PLOVERS							
Charadrius vociferus vociferus	Killdeer		O	Aq,RW,OR	C	C	C*	C
Charadrius montanus	Mountain Plover	C2		OS	U			
SCOLOPACIDAE	SANDPIPERS							
Calidris minutilla	Least Sandpiper			Aq,OR	U	U		
Tringa hypoleucos	Spotted sandpiper		O	Aq,OR	U	U	R	
COLUMBIDAE	PIGEONS and DOVES							
Columba livia	Rock Dove			Gr/OS,DR	C	C	C*	C
Columba fasciata	Band-tailed Pigeon			RW,Gr/OS	R	R		R
*Columba livia**	Domestic Pigeon		O	RW, Gr/OS,DR	Ca	Ca	Ca	Ca
Streptopelia chinensis	Spotted Dove			RW,DR	Ca	Ca	Ca?	Ca
Zenaida macroura marginella	Mourning Dove		O	RW,Gr/OS,Sc,DR	C	C	C*	C
CUCULIDAE	CUCKOOS							
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	SE		RW		Ca	Ca*	Ca
Geococcyx californianus	Greater Roadrunner		O	Sc,RW	U	U	U*	U

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Habitat	Wi	Sp	Su	Au
TYTONIDAE	BARN OWLS							
Tyto alba pratincola	Barn Owl		O	RW,Gr/OS,Sc,DR	U	U	U*	U
STRIGIDAE	OWLS							
Bubo virginianus	Great Horned Owl		O	RW,Gr/OS,Sc,OR	U	U	U*	U
Speotyto (Athene) cunicularia hypugea	Western Burrowing Owl	C2/SC		Gr/OS,Sc	R	R	R?	R
Asio otus	Long-eared Owl	SC		RW	R		Ca?	
Asio flammeus	Short-eared Owl	SC		Gr/OS	U			
APODIDAE	SWIFTS							
Aeronautes saxatalis	White-throated Swift		O	Aq,RW,OR,Sc,DR	C	C	C*	C
TROCHILIDAE	HUMMINGBIRDS							
Archilochus alexandri	Black-chinned Hummingbird		O	RW,OR,Sc		U	U*	R
Calypte anna	Anna's Hummingbird		O	RW,Gr/OS,Sc,DR	C	C	C*	C
Calypte costae	Costa's Hummingbird		O	RW,OR,Sc		C	C*	U
Selasphorus rufus	Rufous Hummingbird			RW,Gr/OS,Sc		U		U
Selasphorus sasin	Allen's Hummingbird			RW,Gr/OS,Sc		C	C*	U
ALCEDINIDAE	KINGFISHERS							
Ceryle alcyon	Belted Kingfisher			Aq	U	R		R
PICIDAE	WOODPECKERS							
Melanerpes formicivorus bairdi	Acorn Woodpecker		O	Gr/OS,RW	C	C	C*	C
Sphyrapicus ruber	Red-breasted Sapsucker			Gr/OS,RW	U	R		U
Picoides nuttallii	Nuttall's Woodpecker		O	RW,Gr/OS,Sc	C	C	C*	C
Picoides pubescens	Downy Woodpecker		O4	RW,Gr/OS	C	C	C*	C
Picoides villosus	Hairy Woodpecker		O4	RW,Gr/OS	U	U	U*	U
Colaptes auratus	Northern Flicker		O	RW,Gr/OS,Sc	C	C	U*	C
TYRANNIDAE	FLYCATCHERS							
Contopus borealis	Olive-sided Flycatcher			RW,Gr/OS	R	R		
Contopus sordidulus	Western Wood-pewee		O	RW,Gr/OS		U	R*	U

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Habitat	Wi	Sp	Su	Au
TYRANNIDAE (cont.)	FLYCATCHERS							
Empidonax traillii	Willow Flycatcher	FPE/SE		RW		R		U
Empidonax hammondii	Hammond's Flycatcher			RW,Gr/OS,Sc		R		R
Empidonax difficilis	Pacific-slope Flycatcher		O	RW,Gr/OS		C	C*	C
Sayornis nigricans semiatra	Black Phoebe		O	RW,OR,Gr/OS	C	C	C*	C
Sayornis saya	Say's Phoebe			Gr/OS,Sc	C	C	R?	C
Pyrocephalus rubinus flammeus	Vermilion Flycatcher	SC	O3	RW		Ca		Ca
Myiarchus cinerascens cinerascens	Ash-throated Flycatcher		O	RW,Gr/OS,Sc		Ca	C?	Ca
Tyrannus vociferans vociferans	Cassin's Kingbird		O	Gr/OS,Sc	U	U	U?	U
Tyrannus verticalis	Western Kingbird		O	RW,Gr/OS,Sc	U	U	U*	U
ALAUDIDAE	LARKS							
Eremophila alpestris actia	California Horned Lark		O	Gr/OS	C	C	U*	C
HIRUNDINIDAE	SWALLOWS							
Tachycineta bicolor	Tree Swallow		O	Aq,RW,Gr/OS, OR	R	C	U	R
Tachycineta thalassina lepida	Violet-green Swallow		O	Aq,RW,Gr/OS, OR,Sc	R	C	U	R
Stelgidopteryx serripennis	Northern Rough-winged Swallow		O	RW,Gr/OS,OR,Sc	U	C	C	R
Hirundo pyrrhonota tachina	Cliff Swallow		O	Aq,RW,Gr/OS, OR,Sc	R	C	C	R
Hirundo rustica erythrogaster	Barn Swallow		O	RW,Gr/OS,OR,Sc	R	A	C	R
CORVIDAE	JAYS, CROWS, and RAVENS							
Aphelocoma coerulescens obscura	Scrub Jay		O	RW,Gr/OS,Sc,DR	C	C	C*	C
Pica nuttalli	Yellow-billed Magpie			Gr/OS	U	U	U*	U
Corvus brachyrhynchos hesperis	American Crow		O	RW,Gr/OS,DR,Sc	C	C	C*	C
Corvus corax clarionensis	Common Raven		O	Gr/OS,Sc,DR,OR	U	U	U?	U
PARIDAE	CHICKADEES and TITMICE							
Parus inornatus transpositus	Plain Titmouse		O	RW,Gr/OS,Sc	C	C	C*	C

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status Obs	Habitat	Wi	Sp	Su	Au
AEGITHALIDAE	BUSHTITS						
Psaltriparus minimus minimus	Bushtit	O	RW,Sc,Gr/OS,DR	C	C	C*	C
SITTIDAE	NUTHATCHES						
Sitta canadensis	Red-breasted Nuthatch		RW,Gr/OS	R	Ca		R
Sitta carolinensis aculeata	White-breasted Nuthatch	O	RW,Gr/OS	U	U	U*	U
TROGLODYTIDAE	WRENS						
Salpinctes obsoletus obsoletus	Rock Wren	O4	DR,Sc	R	R	R*	R
Salpinctes mexicanus conspersus	Canyon Wren	O4	Sc	R	R	R	R
Thryomanes bewickii	Bewick's Wren	O	RW,Sc	C	C	C*	C
Troglodytes aedon parkmanii	House Wren	O	RW,Gr/OS,Sc		U	U*	U
Cistothorus palustris	Marsh Wren		RW,OR	U	U	U*	U
MUSCICAPIDAE	THRUSHES, GNATCATCHERS, and WRENTIT						
Regulus calendula	Ruby-crowned Kinglet		RW,Gr/OS,Sc	C	C		C
Polioptila caerulea	Blue-gray Gnatcatcher		RW,Sc		U	U?	U
Sialia mexicana occidentalis	Western Bluebird	O	RW,Gr/OS,Sc	U	U	U*	U
Catharus guttatus	Hermit Thrush	O	RW,Gr/OS,Sc	C	C		C
Catharus ustulatus	Swainson's Thrush		RW,Sc		C	U?	C
Turdus migratorius propinquus	American Robin	O	Aq,RW,Gr/OS,Sc, DR	C	C	U*	C
Chamaea fasciata henshawi	Wrentit	O	RW,Sc	C	C	C*	C
MIMIDAE	MOCKINGBIRDS and THRASHERS						
Mimus polyglottos polyglottos	Northern Mockingbird	O	RW,Gr/OS,Sc,DR	U	U	U*	U
Toxostoma redivivum redivivum	California Thrasher	O	RW,Sc	C	C	C*	C
MOTACILLIDAE	PIPITS						
Anthus rubescens	American Pipit		Gr/OS,OR,DR	U	U		U
Anthus spinoletta pacificus	Water Pipit	O	Aq,OR,RW	R	U		R
BOMBYCILLIDAE	WAXWINGS						
Bombycilla cedrorum	Cedar Waxwing		RW,Gr/OS,Sc	U	U		U

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Habitat	Wi	Sp	Su	Au
PTILOGONATIDAE	PHAINOPEPLAS							
Phainopepla nitens lepida	Phainopepla		O	RW,GR/OS,Sc	U	U	U	U
LANIIDAE	SHRIKES							
Lanius ludovicianus	Loggerhead Shrike		O	RW,Gr/OS,Sc,DR	C	C	U*	C
STURNIDAE	STARLINGS							
*Sturnus vulgaris**	European Starling	IP		RW,Gr/OS,DR	A	A	A*	A
VIREONIDAE	VIREOS							
Vireo bellii pusillus	Least Bell's Vireo	FE/SE	O3	RW		R	R*	R
Vireo solitarius	Solitary Vireo			RW,Gr/OS		R		R
Vireo huttoni huttoni	Hutton's Vireo		O	RW,Gr/OS	C	C	C*	C
Vireo gilvus swainsonii	Warbling Vireo		O	RW,Gr/OS		C	C*	C
EMBERIZIDAE	WARBLERS, SPARROWS, and ORIOLES							
Vermivora celata	Orange-crowned Warbler		O	RW,Gr/OS,Sc	C	C	U*	C
Vermivora ruficapilla ridgwayi	Nashville Warbler		O	RW,GR/OS		U		U
Dendroica coronata	Yellow-rumped Warbler		O	RW,Gr/OS,Sc,DR	A	C		C
Dendroica nigrescens	Black-throated Gray Warbler		O	RW,Gr/OS,Sc	U	U	U	U
Dendroica petechia	Yellow Warbler	SC	O	RW,Gr/OS,Sc		C	U*	C
Dendroica townsendi	Townsend's Warbler		O	RW,Gr/OS,Sc	U	C		C
Oporornis tolmiei	MacGillivray's Warbler			RW,GR/OS, SC	U			U
Geothlypis trichas	Common Yellowthroat		O	Aq,RW,OR	C	C	C*	C
Wilsonia pusilla	Wilson's Warbler		O	RW,Gr/OS,Sc	R	C	U*	C
Icteria virens auricollis	Yellow-breasted Chat	SC	O	RW		U	U*	U
Piranga rubra rubra	Summer Tanager	SC	O3	RW	U	U		U
Piranga ludoviciana	Western Tanager			RW,Gr/OS,Sc		C		U
Pheucticus melanocephalus maculatus	Black-headed Grosbeak		O	RW,Sc,Gr/OS		C	C*	U
Guiraca caerulea salicaria	Blue Grosbeak		O4	RW,Sc,Gr/OS,DR		U	U*	Ca

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common or Vernacular Name	Status	Obs	Habitat	Wi	Sp	Su	Au
EMBERIZIDAE (cont.)	WARBLERS, SPARROWS, and ORIOLES							
Passerina amoena	Lazuli Bunting		O	RW,Sc,Gr/OS		U	U*	U
Pipilo erythrophthalmus megalonyx	Rufous-sided Towhee		O	RW,Sc	C	C	C*	C
Pipilo crissalis	California Towhee		O	RW,Sc	C	C	C*	C
Aimophila ruficeps canescens	Southern California Rufous-crowned Sparrow	C2	O	Sc	U	U	U*	U
Spizella passerina	Chipping Sparrow			Sc	R	R	R*	
Spizella atrogularis	Black-chinned Sparrow			Sc		Ca	Ca?	
Pooeceles gramineus	Vesper Sparrow			Gr/OS,Sc		R		R
Chondestes grammacus strigatus	Lark Sparrow		O	Gr/OS,OR,Sc	C	C	U*	C
Amphispiza belli belli	Bell's Sage Sparrow	C2		Sc	R	R	R?	R
Passerculus sandwichensis	Savannah Sparrow		O	Aq,RW,Gr/OS,DR	C	C	C*	C
Melospiza melodia	Song Sparrow		O	RW,Sc,Aq,OR	C	C	C*	C
Melospiza lincolnii	Lincoln's Sparrow			RW,Sc	C	C		C
Zonotrichia atricapilla	Golden-crowned Sparrow			RW,Sc	C	C		C
Zonotrichia leucophrys	White-crowned Sparrow		O	RW,Gr/OS,Sc,DR	A	C		C
Junco hyemalis	Dark-eyed Junco		O	RW,Gr/OS,Sc	C	C	U*	C
Agelaius phoeniceus	Red-winged Blackbird		O	Aq,RW,Gr/OS,DR	C	C	C*	C
Agelaius tricolor	Tricolored Blackbird	C2	O4	Aq,RW,Gr/OS	U	U	R?	U
Sturnella neglecta	Western Meadowlark		O	Gr/OS	C	C	C*	C
Xanthocephalus xanthocephalus	Yellow-headed Blackbird			RW		U		U
Euphagus cyanocephalus	Brewer's Blackbird		O	RW,Gr/OS,Sc,DR	C	C	C*	C
Molothrus ater	Brown-headed Cowbird		O	RW,Gr/OS,Sc,DR	C	C	C*	C
Icterus cucullatus	Hooded Oriole		O4	Gr/OS,RW		R	R?	R
Icterus galbula	Northern Oriole		O	Gr/OS,RW		U	U*	U

Appendix H (con't.)
Bird Species Observed on the Newhall Ranch or Occurring in the Region

Scientific Name	Common or Vernacular Name	Statuss	Obs	Habitat	Wi	Sp	Su	Au
FRINGILLIDAE	FINCHES							
Carpodacus purpureus	Purple Finch		O	RW,Gr/OS	U	U	U*	U
Carpodacus mexicanus	House Finch		O	RW,Sc,Gr/OS,DR	A	A	C*	A
Carduelis pinus	Pine Siskin			RW,Gr/OS,Sc	U	R		R
Carduelis psaltria hesperophilus	Lesser Goldfinch		O	RW,Gr/OS,Sc	C	C	C*	C
Carduelis lawrencei	Lawrence's Goldfinch		O	RW,Gr/OS,Sc	R	U	U	U
Carduelis tristis	American Goldfinch			RW,Gr/OS,Sc	C	C	C*	C
PASSERIDAE	WEAVERS							
*Passer domesticus**	House Sparrow	IP	B	RW,Gr/OS,Sc,DR	C	C	C*	C

KEY:
Scientific and common names follow A.O.U. (1975).

Status of species:

- C2 = Category 2 federal candidate species, threat or distribution data insufficient for federal listing
- FE = Federal listed, Endangered
- FPE = Federal proposed, Endangered
- IP = Introduced pest
- SC = CDFG Species of Special Concern (Remsen, 1978)
- SE = State listed, Endangered
- SP = Fully protected: California Fish and Game Code, Sections 3511, 4700, 5050, 5515
- ST = State listed, Threatened.

* Idicates non-native species.

Observations of species occurrence:

- O = Observed during RECON surveys
- O1= Baskin and Haglund survey 1993
- O2= Baskin and Haglund survey 1992
- O3= Guthrie 1993 or 1995 surveys
- O4= Dames & Moore surveys 1993

Seasonal occurrence, known or expected breeding status and abundance:

- Sp = Spring migrant (March 1- May 31) in the project region
- Su = Summer resident (June 1 - July 31) occurs only as a spring-summer breeder; migrates out of the region for the winter
- Wi = Winter visitor (August 31 - February 28) occurs only as a winter visitor and is not known to breed in the project region
- Au = Fall migrant (August 1 - November 30). The species occurs within the given habitat types as a fall migrant
- * = Known breeding (known or expected to breed) in the project region
- ? = Breeding status uncertain; the species may nest in the project region where suitable habitat exists.

- A = Abundant: nearly always encountered, generally in moderate to large numbers in the habitat(s) indicated
- C = Common: usually found in the habitat(s) indicated during the indicated season, but usually not in large numbers
- U = Uncommon: occurs in small numbers, and is not always observed in the indicated habitat
- R = Rare: may occur in the indicated habitat, but only in very small numbers
- Ca = Casual: not of regular occurrence, although the project region is within the range of the species.

Habitat(s) typically used by the species:

- Aq=Aquatic habitats: open water, stream and marsh
- DR = Disturbed/ruderal: roadsides, agricultural fields, disked/weed-abated areas
- Gr/OS = Grassland/oak savannah
- OR = Open riverbed and bank
- RW = Riparian woodland: cottonwood/willow forest & woodland, willow thicket and mule fat scrub
- Sc = Scrub habitats: coastal sage scrub to low chaparral.

Appendix H (con't.)
Fish Species Observed on Newhall Ranch

Scientific Name	Common Name	Status	Habitat	Observations
Gasterosteus aculeatus williamsoni	Unarmored Threespine Stickleback	FE/SE	SCR	O1
Cottus asper	Prickly Sculpin		SCR	O
Catostomus santaanae	Santa Ana Sucker	C2/SC	SCR	O2
Gila orcutti	Arroyo Chub	C2/SC	SCR	O
*Gambusia affinis**	Mosquitofish		SCR	O

KEY:

Status of species:
- C2 = Category 2 candidate, threat or distribution data insufficient for federal listing
- FE = Federally listed, Endangered
- SC = CDFG Species of Special Concern
- SE = State listed, Endangered.

Habitat: SCR= Santa Clara River

Observations of species occurrence:
- O = Observed during RECON surveys
- O1= Observed by Baskin and Haaglund 1993
- O2= Observed by Baskin and Haaglund 1992

* Indicates non-native species.

Appendix H (con't.)
Amphibian and Reptile Species Observed on Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Aq	R	OR	Sc	Gr/OS	DR
Amphibians									
CAUDATA	SALAMANDERS								
Aneides lugubris	Arboreal Salamander				U			U	
Batrachoseps nigriventris	Black-bellied Slender Salamander				C		U	C	
ANURA	FROGS & TOADS								
Bufo microscaphus californicus	Arroyo Toad	FE/SC	O	R	R	R			
Bufo boreas halophilus	California Toad		O	U	Ca	Ca		Ca	
Pseudacris regilla	Pacific Treefrog		O	A	C	C	U	U	
Rana aurora draytoni	California Red-legged Frog	FPE/SC		Ca					
Scaphiopus hammondii	Western Spadefoot Toad	C2/SC	O	Ca					
*Xenopus laevis**	African Clawed Frog	IP	O2	Ca					
Reptiles									
TESTUDINES	TURTLES								
Clemmys marmorata pallida	Southwestern Pond Turtle	C2/SC	O2	Ca	Ca				
SQUAMATA	LIZARDS								
Anniella pulchra pulchra	Silvery Legless Lizard	C2/SC					U		
Gambelia wislizenii wislizenii	Long-nosed Leopard Lizard		O				Ca		
Xantusia vigilis vigilis	Desert Night Lizard						U		
Elgaria multicarinatus	Southern Alligator Lizard				C	C	A	A	
Eumeces skiltonianus skiltonianus	Western Skink				U		U	C	
Uta stansburiana	Side-Blotched Lizard		O			C	U	U	C
Sceloporus occidentalis biseriatus	Western Fence Lizard		O		U	R	U	A	C
Cnemidophorus tigris multiscutatus	Coastal Western Whiptail	C2/SC	O		U	C	C	U	
Phrynosoma coronatum blainvillii	San Diego Horned Lizard	C2/SC	**			R	R		
Phrynosoma coronatum frontale	California Horned Lizard	C2/SC	**			R	R		

Appendix H (con't.)
Amphibian and Reptile Species Observed on Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Aq	RW	OR	Sc	Gr/OS	DR
SQUAMATA	SNAKES								
Salvadora hexalepis virgultea	Coast Patch-nosed Snake	C2/SC					Ca		
Diadophis punctatus modestus	San Bernardino Ringneck Snake	C2			U			U	
Hypsiglena torquata	Night Snake						U	U	
Thamnophis hammondii hammondii	Two-striped Garter Snake	C2/SC	O4	R	R				
Lampropeltis getulus californiae	Common Kingsnake				U		U	C	R
Pituophis melanoleucus annectens	San Diego Gopher Snake		O		U	U	C	C	R
Coluber constrictor mormon	Racer						U	U	
Masticophis flagellum piceus	Red Coachwhip		O			R	U	U	
Masticophis lateralis latealis	Chaparral whipsnake		O				U		
Crotalus viridis helleri	Southern Pacific Rattlesnake		O		Ca	R	C	R	R

KEY:

Scientific and common names follow Collins et al. (1982).

Status of species:

C2 = Category 2 candidate, threat or distribution data insufficient for federal listing
FPE = Federal proposed, Endangered
IP = Introduced pest
SC = CDFG Species of Special Concern.

Observations of species occurrence:

O = Observed during RECON surveys.
O2= Baskin and Haglund surveys 1992
O4= Dames & Moore surveys 1993.

* Indicates non-native species

** Horned lizards were observed three times during RECON surveys. A definate determination of the subspecies was not made, and the project area is on the edge of the range of two subspecies (*P. c. frontale* and *P.c. blainvillii*). It is prudent to consider both of these subspecies to be present onsite.

Habitat(s) typically used by the species and species abundance in habitat:

Aq=Aquatic habitats: open water, stream and marsh
DR = Disturbed/ruderal: roadsides, agricultural fields, disced/weed-abated areas
Gr/OS = Grassland/oak savannah
OR = Open riverbed and bank
RW = Riparian woodland: cottonwood/willow forest and woodland, willow thicket, and mule fat scrub
Sc = Scrub habitats: coastal sage scrub to low chaparral.

A = Abundant: nearly always encountered, generally in moderate to large numbers in the habitat(s) indicated
C = Common: usually found in the habitat(s) indicated during the indicated season, but usually not in large numbers
U = Uncommon: occurs in small numbers, and is not always observed in the indicated habitat
R = Rare: may occur in the indicated habitat, but only in very small numbers
Ca = Casual: not of regular occurrence, although the project region is within the range of the species.

Appendix H (con't.)
Mammal Species Observed on Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Aq	RW	OR	Sc	GR/OS	DR
DIDELPHIDAE	OPOSSUMS								
Didelphis virginiana	Virginia Oppossum			U	C	C	U	U	R
SORICIDAE	SHREWS								
Sorex ornatus	Ornate Shrew				U		U		
Notiosorex crawfordi	Desert Shrew						Ca		
TALPIDAE	MOLES								
Scapanus latimanus	Broad-footed Mole				C	U	U	U	
VESPERTILIONIDAE	VESPERTILIONID BATS								
Myotis californicus	California Myotis				U	U	C	C	U
Myotis thysanodes	Fringed Myotis	C2			Ca	Ca	Ca	Ca	
Myotis yumanensis	Yuma Myotis	C2			U	U	U	C	
Lasiurus cinereus	Hoary Bat				U	U	U	U	
Pipistrellus hesperus	Western Pipistrelle				U	U	U	U	
Eptesicus fuscus	Big Brown Bat				U	U	U	U	
Euderma maculatum	Spotted Bat	C2			Ca	Ca	Ca	R	
Plecotus townsendii pallescens	Pale Townsend's Big-eared Bat	C2/CC			R	R	R	U	
Antrozous pallidus	Pallid Bat				U	U	U	C	
MOLOSSIDAE	MOLOSSID BATS								
Tadarida brasiliensis	Brazilian Free-tailed Bat				C	C	C	C	U
Eumops perotis californicus	Greater Western Mastiff-bat	C2/SC			R	R	R	R	
LEPORIDAE	HARES and RABBITS								
Sylvilagus audubonii	Desert Cottontail		O		U	C	C	C	U
Sylvilagus bachmani	Brush Rabbit				C		U		
Lepus californicus bennettii	San Diego Black-tailed Jackrabbit	C2	O		U	C	C	C	R

Appendix H (con't.)
Mammal Species Observed on Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Aq	RW	OR	Sc	GR/OS	DR
SCIURIDAE	SQUIRRELS and CHIPMUNKS								
Tamias merriami	Merriam's Chipmunk						U		
Spermophilus beecheyi	California Ground Squirrel		O			U	C	A	C
Sciurus griseus	Western Gray Squirrel				U				
GEOMYIDAE	POCKET GOPHERS								
Thomomys bottae	Botta's Pocket Gopher				A	C	C	A	C
HETEROMYIDAE	KANGAROO RATS & POCKET MICE								
Perognathus longimembris brevinasus	Los Angeles Pocket Mouse	C2/SC					R	R	
Chaetodipus californicus dispar	California Pocket Mouse		O		R		C		
Dipodomys agilis	Agile Kangaroo Rat		O				U		
MURIDAE	MICE, RATS, and VOLES								
Reithrodontomys megalotis	Western Harvest Mouse				U		U	C	R
Peromyscus boylii rowleyi	Brush Mouse		O		C		U		
Peromyscus californicus	California Mouse				C		U		
Peromyscus maniculatus	Deer Mouse		O		U	U	C	U	R
Peromyscus truei martirensis	Piñon Mouse		O				C	U	
Onychomys torridus	Grasshopper Mouse	C2					R	R	
Neotoma fuscipes macrotis	Dusky-footed Woodrat		O		C		U	R	
Neotoma lepida intermedia	San Diego Desert Woodrat	C2/SC	O				C		
*Rattus rattus**	Black Rat								C
*Mus musculus**	House Mouse							U	C
Microtus californicus	California Vole		O4	U	C	U	U	A	R
CANIDAE	CANIDS								
Canis latrans	Coyote		O		C	C	C	C	U
*Vulpes vulpes**	Red Fox		O4		U	U	U	U	U
Urocyon cinereoargenteus	Common Gray Fox		O4		R	R	C	U	

Appendix H (con't.)
Mammal Species Observed on Newhall Ranch or Occurring in the Region

Scientific Name	Common Name	Status	Obs	Aq	RW	OR	Sc	GR/OS	DR
PROCYONIDAE	PROCYONIDS								
Procyon lotor	Common Raccoon		O	C	C	C	U	U	U
MUSTELIDAE	MUSTELIDS								
Mustela frenata	Long-tailed Weasel		O		U	R	R	C	
Taxidea taxus	American Badger	SC					R	U	
Spilogale gracilis	Western Spotted Skunk						U	U	
Mephitis mephitis	Striped Skunk				C	U	U	C	U
FELIDAE	CATS								
Felis concolor	Mountain Lion	SP	O		Ca	Ca	Ca		Ca
Lynx rufus	Bobcat		O		U	U	U	U	
CERVIDAE	CERVIDS								
Odocoileus hemionus	Mule Deer		O		C	U	C	C	U

KEY:
Scientific and common names follow Jones et al. (1992).

Status of species:

C2 = Category 2 candidate, threat or distribution data insufficient for federal listing
CC = California Candidate species
SC = CDFG Species of Special Concern
SP = Fully protected: California Fish and Game Code, Sections 3511, 4700, 5050, 5515.

Observations of species occurrence:

O = Observed during RECON surveys.
O4= Dames & Moore surveys 1993.

* Indiacates non-native species.

Habitat(s) typically used by the species and species abundance in habitat:

Aq=Aquatic habitats: open water, stream and marsh
DR = Disturbed/ruderal: roadsides, agricultural fields, disced/weed-abated areas
Gr/OS = Grassland/oak savannah
OR = Open riverbed and bank
RW = Riparian woodland: cottonwood/willow forest & woodland, willow thicket and mule fat scrub
Sc = Scrub habitats: coastal sage scrub to low chaparral.

A = Abundant: nearly always encountered, generally in moderate to large numbers in the habitat(s) indicated
C = Common: usually found in the habitat(s) indicated during the indicated season, but usually not in large numbers
U = Uncommon: occurs in small numbers, and is not always observed in the indicated habitat
R = Rare: may occur in the indicated habitat, but only in very small numbers
Ca = Casual: not of regular occurrence, although the project region is within the range of the species.

APPENDIX I
Oak Tree Report

INDEPENDENT ENVIRONMENTAL CONSULTANTS

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An Initial Analysis of Oak Tree Resources of Newhall Ranch
Los Angeles County, California
Newhall Ranch Company

Newhall Ranch Company is applying for approval of a specific plan, which will be built out in phases over a period of approximately 25 years. Subdivision maps and oak tree permits will be obtained over the buildout period to implement each phase of development. Oak tree permit(s) are not being submitted as part of the specific plan for several reasons. The current grading plan is conceptual in nature and does not provide sufficient detail to determine precisely which oak trees will be impacted by development. Additionally the long development time frame makes it likely that permit information on oak tree condition and size would be outdated long before development occurs. It also would not be practical to tag oak trees in the field as many of the tags would be lost over time. Oak tree permits will be sought in conjunction with the future tract maps, which will implement the specific plan.

This initial survey of the oak resources of a portion of the 11,960 acre Newhall Ranch was undertaken in the Spring-Summer of 1995 to determine the numbers and location of oak trees on the portion of the site subject to future development and to allow an analysis of the potential impact on these trees caused by the preliminary grading plan. Because of the vast number of trees on the property only those trees within the proposed development area (i.e. the northern two thirds of the site) were surveyed. The most extensive oak groves and oak woodlands occur in the "High Country," in the southern third of the property. These trees were not included in this survey as this portion of the site is very rugged and largely without road access. Only 15 units are planned in the High Country, which are envisioned to be custom homes with very limited grading.

As the site is within the jurisdiction of the County of Los Angeles data was taken that would conform to the requirements of the County of Los Angeles Oak tree Ordinance No 88-0157. Data were recorded on 1:200 scale maps of the site (1 inch = 200 ft) on which individual oak trees and the outlines of groves of oak trees were indicated. As this survey is intended only as an initial survey, only the following data were taken.

Tree Species: The site has two species of oaks. The Coastal alive oak (Quercus agrifolia) is the most common species present, the valley oak (Quercus lobata) is less common. As some of the tree outlines indicated on the topography maps were not oaks, the presence of other tree and large shrub species were noted in the initial survey, including cultivated species around buildings.

Tree Number: Trees were not tagged or numbered in the field but trees were assigned a number as they were entered into a Geographical Information System (GIS) by FORMA DESIGNS of Costa Mesa, California.

Tree Size: The Los Angeles County oak tree ordinance indicates that only trees larger than 8 inches in diameter breast height (DBH) (= 25 inches in circumference) need to be assessed. Therefore trees smaller than 8 inches in diameter (DBH) were not recorded in this survey. The county ordinance also indicates that all trees with trunks larger than 3 feet in diameter (DBH) (= 113 inches in circumference) are to be considered heritage trees. All trees with large trunks were measured at 4.5 ft above the average base using a steel tape and all such trees with a trunk over 110 inches in circumference were flagged as heritage trees. A smaller measurement (110 inches circumference) was used to indicate heritage trees as these trees may grow to the required 113 inch DBH by the time a particular section of the property is developed. The circumference measurement (in inches) is indicated on the appendix data for all heritage and subheritage trees. As this is not intended as a complete oak tree analysis, no trunk circumferences or crown diameter measurements were made or recorded for the other trees--this will be done in the final oak tree surveys covering individual development sites.

Mapping: The location of all oaks was indicated on 1:200 scale topographic maps in the field and then digitized into a Geographical Information System along with relevant statistics for each tree. Where individual trees are outlined on the base topographic maps the placement of the trees is considered to be highly accurate. Where individual tree locations are not indicated on the base topographic maps, the trees were located based on visual inspection of the location relative to map topography and adjacent trees and their placement may be subject to revision when reports are prepared for future oak tree permits. When large groves of dense trees were outlined on the map the overall outline was used as a guide for the location of oaks. The exact location of these trees may be at variance with the indicated location on the maps. In some of the dense groves trees were highly crowded, sometimes with trunks 3-5 ft apart and with tall crowns extending in various directions. These trees would need to be mapped at a distance of 1/40 of an inch apart, which was not possible. It also was not possible to reflect the overlapping of tree crowns in the mapping but the overal position of the trees on the map is relatively accurate.

Evaluation: An evaluation of each tree was made during the survey and the evaluation grade was recorded as a number. Both oak tree species were evaluated in 5 grades reflecting the appearance, physical structure, health, and position of the individual trees as indicated below. This was noted on the maps as a number using 1-5 for Coastal live oak with 1 = A, 2 = B, 3 = C, 4 = D, and 5 = F, and 6-10 for Valley oak with 6 = A, 7 = B, 8 = C, 9 = D, and 10 = F. As the species of each tree was noted as the data were recorded into the Geographical Information System, this 10-grade system was reduced down to a 5-grade system with 1 = A, 2 = B, 3 = C, 4 = D, and 5 = F for each species.

The grading system takes several factors in to consideration: 1) The growth habit or growth form of the tree, i.e., whether the trunk is straight or badly leaning, the symmetry of the crown as well as the amount of crowding by other trees. In this regard it is an evaluation of the general attractiveness of the tree. 2) The general health of the tree, taking into consideration the amount of dieback or necrosis present in main branches and trunks that would indicate some decline in health or vigor either caused by the past several years of drought and/or past fires. This includes the presence of pathological diseases caused by wood-rotting fungi, bacteria, and insects. The trees on the site showed little fire damage, although many old trees had multiple trunks that indicate that the initial trunk was killed and the tree regrew through sucker shoots. These regrowth trees often show rapid growth as they have well developed root systems. 3) The vigor of the tree, an indication of the growth rate of the tree. As the survey was undertaken during a spring characterized by heavy rains, most of the trees showed vigorous growth. This would not be expected in years of little rainfall. 4) Crowding and shading by neighboring plants is also considered as this may be a significant impediment to health and vigor of an individual tree. Lower stem dieback, however, is considered normal self pruning and is not considered pathological. The grading system has five classes. The general basis for inclusion of any individual tree into one of the five classes is indicated below.

1 = A: Excellent trees, mostly of large size, of good growth form with often large spreading crowns, exhibiting very good to excellent health with mostly normal necrosis and a minimum of pathological symtoms. Some of these trees may have minor trunk cavitation and some necrosis, but this is not considered detrimental to the overall health of the tree.

2 = B: Trees of very good to good health but not of exceptional size. Some of these trees are actually in excellent condition, but are included in this category as they are not of exceptional size. Most of the oaks of the site fall into this category, which includes both small and moderately large trees. In some instances trees are crowded together with individual trees being highly asymmetrical, but two or more trees may combine to form a single crown of excellent shape and appearance. Some trees show some necrosis and moderate stem dieback, but this is not excessive and growth of new foliage is vigorous. These trees are considred to be of very good health and vigor with a high potential for continued survival.

3 = C: Poor to moderately good trees whose growth habit and pathological symptoms indicate an equal chance to either decline or continuance into the future. The trees may have some trunk cavitation, moderate upper-stem dieback, show weak vigor, and/or they may just suffer from strong crowding by adjacent trees to the extent that this appears to negatively effect their welfare.

4 = D: Declining trees with a reduced chance for survival due to excessive dieback, crowding, shading, or advanced symptoms of various pathological conditions and/or extensive cavitation. The trees often have reduced foliage and appear to be strongly declining and it is expected that they will not continue to live.

5 = F: Dead standing trees. Dead fallen trees were not considered in the survey.

Results: Data from a total of 3,303 trees were recorded within the project boundary. This includes 2,887 Coastal live oak and 416 Valley oak. In addition the limits of the conceptual grading plan contained in the Newhall Ranch Specific Plan were overlayed using the Geographical Information System to produce estimated oak tree impacts. The survey included the following numbers of oaks in the five grade classes:

Table 1. Total Oak Trees on the site.

	Grade	No. trees surveyed	Trees impacted
Coastal live Oak	1 = A	235	125
	2 = B	2,401	708
	3 = C	154	62
Subtotal of A-C trees		(2790)	(895)
	4 = D	57	13
	5 = F	40	18
	Subtotal:	2,887	926
Valley Oak	1 = A	49	15
	2 = B	317	59
	3 = C	32	12
Subtotal of A-C trees		(398)	(86)
	4 = D	11	5
	5 = F	7	3
	Subtotal:	416	94
	Total:	3,303	1,020

The above table gives total numbers of trees recorded in each of the five grade classes A through F on the site. Of the 2,887 Coastal live oaks, 2,790 are of A-C grade, and 97 were of D-F grade. Of the 416 Valley oaks, 398 are of A-C grade and 18 of D-F quality. Of the 3,303 trees of both species 3,188 are to be C grade or above, while 115 trees are of D grade or below.

Heritage oaks: The portion of the site surveyed contained a total of 231 heritage oaks (trees with trunk circumferences 110 inches or higher at breast height), 177 Coastal live oaks, and 54 Valley oaks. Their distribution in the five grade classes is indicated in Table 2. These totals are included in Table 1.

The current grading plan will potentially impact approximately one third of the trees in the areas of development. With the location data provided by this survey, it is considered that the ultimate loss of tree species will be considerably less as the ultimate grading plans can be altered to avoid impact to some of these of trees. Also, the tree numbers indicated above are only for those trees actually surveyed in the northern two thirds of the site. An unknown number of trees occur in the high country in the southern third of the Newhall Ranch property.

While no survey has been made of the trees in this rugged portion of the site it is estimated that the number well exceeds 8,500 trees. This estimate was made by calculating the density of oaks per acre within defined oak habitats in the southern portion of the site and multiplying the average density by the acerage of the oak habitats not surveyed. Based on field observation the density of the oaks in this portion of the site is probably greater than on the portion that was surveyed and therefore this estimate is considered conservative. Assuming that the southern portion of the site contains at least 8,500 trees, less than nine percent of the total trees on the site would be potentially impacted by development.

Table 2. Heritage oak trees on the site

	Grade	No. trees surveyed	Trees impacted
Coastal live Oak	1 = A	110	69
	2 = B	55	27
	3 = C	7	3
Subtotal of A-C trees		(172)	(99)
	4 = D	5	2
	5 = F	0	0
	Subtotal:	177	101
Valley Oak	1 = A	35	11
	2 = B	13	6
	3 = C	3	1
Subtotal of A-C trees		(51)	(18)
	4 = D	2	2
	5 = F	1	0
	Subtotal:	54	20
	Total	231	121

The evaluation and location of all trees is included as table and map appendices. As noted above the trees were evaluated and located but not numbered in the field. Numbering was done as the data was recorded in the Geographical Information System. Missing numbers from the series were applied to trees outside the area of the survey and therefore are not included in the final survey evaluation. The appendix data set also includes data on species (C = Coastal live oak, V = Valley oak, and indicates if the trees are of heritage size and then also presents trunk circumference in inches at breast height. Data on whether the trees will be impacted by the current plans of development is also indicated. Location of the trees are included in the appendix maps with each tree assigned a number.

Off Site Impacts: Overall development of the site will also entail extensions of Valencia Boulevard west from the boundary of the proposed Westridge development to this site and Magic Mountain Parkway west from the entrance to Six Flags Magic Mountain to this site. A separate survey of oak resources along these routes was performed. These two routes contained the only 6 trees, all of which may be impacted by the proposed roadway extensions. Several other Coastal live oaks occurred adjacent to these routes but were neither included in this survey nor impacted by the proposed roadway alignments.

Table 3. Off-Site Trees Impacted by Proposed Roadways

	Grade	No. trees surveyed	Trees impacted
Coastal live Oak	1 = A	1	1
	2 = B	5	5
	3 = C	0	0
	4 = D	0	0
	5 = F	0	0
	Total:	6	6

Impacts on Significant Ecological Areas: The Newhall Ranch site contains portions of two Los Angeles County Significant Ecological Areas (SEA), SEA 20, the Santa Susana Mountains located in the "High Country" in the southern third of the site, and SEA 23, the Santa Clara River. While oak tree counts were not completed throughout these SEA's (most of the southern High Country was not surveyed and no oaks were surveyed in the central floodplains of the Santa Clara River) some encroachment will be made in the boundarys of the SEA's and impacts on tree resources in these areas are indicated below.

Table 4. Trees impacted in SEA 20 and SEA 23

	Grade	No. of Trees impacted SEA 20	SEA 24
Coastal live Oak	1 = A	1	6
	2 = B	10	43
	3 = C	0	3
	Subtotal:	11	52
Valley Oak	1 = A	0	1
	2 = B	2	3
	3 = C	0	1
	Subtotal:	2	5
	Total	13	57

James Henrickson Ph.D.
September 6, 1995
(213-)343-2057

NEWHALL RANCH OAK TREE SURVEY

Summer, 1995

1. TYPE
   - C - Coastal Live Oak, Quercus agrifolia
   - V - Valley Oak, Quercas lobata

2. HEALTH
   - 1 - Excellant large trees
   - 2 - Very good to good trees
   - 3 - Moderately good or crowded trees
   - 4 - Trees with strong dieback
   - 5 - Dead standing trees

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1	V	2	HERITAGE	127	Y
2	V	4	HERITAGE	120	Y
3	V	3	HERITAGE	138	N
4	V	2	HERITAGE	129	Y
5	V	2	HERITAGE	111	N
6	V	2	HERITAGE	110	N
7	V	1	HERITAGE	135	N
8	V	1	HERITAGE	128	N
9	V	1	HERITAGE	121	N
10	V	1	HERITAGE	170	Y
11	V	1	HERITAGE	110	Y
12	V	1	HERITAGE	138	N
13	V	2	HERITAGE	129	N
14	V	2	HERITAGE	131	N
15	C	1	HERITAGE	182	Y
16	C	2	HERITAGE	113	Y
17	C	1	HERITAGE	197	N
18	V	1	HERITAGE	120	N
19	V	1	HERITAGE	110	Y
20	V	2	HERITAGE	110	Y
21	V	1	HERITAGE	119	N
22	V	1	HERITAGE	121	N
23	V	1	HERITAGE	116	N
24	V	3	HERITAGE	114	Y
25	V	1	HERITAGE	116	Y
26	V	2	HERITAGE	130	N
27	V	2	HERITAGE	110	N
28	C	1	HERITAGE	110	N
30	C	1	HERITAGE	119	Y
31	C	1	HERITAGE	137	Y
32	C	1	HERITAGE	150	N
33	C	2	HERITAGE	119	N
34	C	1	HERITAGE	190	N
35	C	1	HERITAGE	116	N
36	C	1	HERITAGE	150	N
37	C	1	HERITAGE	115	N
38	C	4	HERITAGE	114	N
39	C	2	HERITAGE	125	N
40	C	1	HERITAGE	160	Y
41	C	1	HERITAGE	180	Y
42	C	2	HERITAGE	118	N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
43	C	1	HERITAGE	138	N
44	C	4	HERITAGE	118	N
45	C	2	HERITAGE	115	N
46	C	2	HERITAGE	138	N
47	C	2	HERITAGE	116	N
48	C	2	HERITAGE	118	N
49	C	2	HERITAGE	140	N
50	C	2	HERITAGE	135	N
51	C	2	HERITAGE	153	N
52	C	2	HERITAGE	152	N
53	C	2	HERITAGE	125	N
54	C	2	HERITAGE	111	N
55	V	1	HERITAGE	142	Y
56	C	1	HERITAGE	117	Y
57	V	1	HERITAGE	180	N
58	V	1	HERITAGE	138	Y
59	V	1	HERITAGE	115	N
60	V	1	HERITAGE	120	N
61	V	1	HERITAGE	137	N
62	V	1	HERITAGE	119	N
63	V	1	HERITAGE	177	Y
64	V	2	HERITAGE	110	N
65	V	1	HERITAGE	127	Y
66	V	1	HERITAGE	183	Y
67	V	3	HERITAGE	195	N
68	V	4	HERITAGE	146	Y
69	V	2	HERITAGE	191	Y
70	V	2	HERITAGE	156	Y
71	V	1	HERITAGE	115	N
72	V	1	HERITAGE	142	Y
73	C	4	HERITAGE	128	N
74	V	1	HERITAGE	118	N
75	V	1	HERITAGE	120	N
76	C	1	HERITAGE	130	Y
77	C	2	HERITAGE	132	N
78	C	2	HERITAGE	110	N
79	C	1	HERITAGE	137	Y
80	C	1	HERITAGE	129	Y
81	C	1	HERITAGE	162	Y
82	C	4	HERITAGE	138	Y
83	C	1	HERITAGE	136	Y
84	C	1	HERITAGE	213	Y
85	C	2	HERITAGE	169	Y
86	C	2	HERITAGE	140	N
87	C	1	HERITAGE	129	Y
88	C	1	HERITAGE	110	Y
89	C	1	HERITAGE	128	Y
90	C	1	HERITAGE	110	N
91	C	1	HERITAGE	113	N
92	C	2	HERITAGE	120	Y
93	C	1	HERITAGE	150	N
94	C	3	HERITAGE	145	N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
95	C	4	HERITAGE	230	Y
96	C	2	HERITAGE	103	Y
97	C	1	HERITAGE	116	N
98	C	1	HERITAGE	131	N
99	C	1	HERITAGE	116	N
100	C	1	HERITAGE	120	Y
101	V	1	HERITAGE	150	N
102	C	2	HERITAGE	226	Y
103	C	2	HERITAGE	111	N
104	C	1	HERITAGE	139	N
105	C	1	HERITAGE	130	N
106	C	1	HERITAGE	150	Y
107	C	2	HERITAGE	135	Y
108	C	2	HERITAGE	117	Y
109	C	1	HERITAGE	134	Y
110	C	1	HERITAGE	210	Y
111	C	3	HERITAGE	137	N
112	C	1	HERITAGE	123	Y
113	C	2	HERITAGE	250	Y
114	C	2	HERITAGE	162	Y
115	C	2	HERITAGE	116	Y
116	C	2	HERITAGE	127	Y
117	C	2	HERITAGE	137	Y
118	C	2	HERITAGE	110	Y
119	C	2	HERITAGE	137	Y
120	C	2	HERITAGE	121	Y
121	C	2	HERITAGE	112	N
122	C	2	HERITAGE	116	N
123	C	2	HERITAGE	120	N
124	C	1	HERITAGE	120	Y
125	C	1	HERITAGE	112	Y
126	C	1	HERITAGE	131	Y
127	C	1	HERITAGE	116	Y
128	C	1	HERITAGE	148	Y
129	C	1	HERITAGE	120	Y
130	C	1	HERITAGE	148	Y
131	C	1	HERITAGE	151	Y
132	C	1	HERITAGE	130	Y
133	C	1	HERITAGE	215	Y
134	C	1	HERITAGE	154	Y
135	C	1	HERITAGE	125	Y
136	C	1	HERITAGE	185	Y
137	C	1	HERITAGE	116	Y
138	C	1	HERITAGE	150	Y
139	C	1	HERITAGE	120	Y
140	C	1	HERITAGE	146	Y
141	C	1	HERITAGE	150	Y
142	C	1	HERITAGE	140	Y
143	C	1	HERITAGE	135	Y
144	C	1	HERITAGE	143	Y
145	C	1	HERITAGE	129	Y
146	C	1	HERITAGE	116	Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
147	C	1	HERITAGE	132	Y
148	C	1	HERITAGE	135	Y
149	C	1	HERITAGE	119	Y
150	C	1	HERITAGE	137	Y
151	C	1	HERITAGE	116	Y
152	C	1	HERITAGE	125	Y
153	C	1	HERITAGE	240	Y
154	C	1	HERITAGE	145	Y
155	C	1	HERITAGE	190	Y
156	C	1	HERITAGE	120	Y
157	C	1	HERITAGE	114	Y
158	C	1	HERITAGE	110	Y
159	C	1	HERITAGE	139	Y
160	C	1	HERITAGE	120	Y
161	C	1	HERITAGE	117	N
162	C	1	HERITAGE	130	N
163	C	1	HERITAGE	130	N
164	C	1	HERITAGE	119	N
165	C	1	HERITAGE	143	N
166	V	5	HERITAGE	155	N
167	C	1	HERITAGE	130	N
168	C	1	HERITAGE	182	Y
169	C	3	HERITAGE	131	N
170	C	1	HERITAGE	113	N
171	C	1	HERITAGE	116	N
172	C	1	HERITAGE	117	N
173	C	1	HERITAGE	150	N
174	C	1	HERITAGE	140	N
175	C	1	HERITAGE	130	N
176	C	1	HERITAGE	160	N
177	C	3	HERITAGE	189	Y
178	C	3	HERITAGE	125	N
179	C	1	HERITAGE	135	N
180	C	1	HERITAGE	128	N
181	C	2	HERITAGE	120	N
182	C	2	HERITAGE	130	N
183	C	2	HERITAGE	144	Y
184	C	1	HERITAGE	116	Y
185	C	1	HERITAGE	110	Y
187	C	3	HERITAGE	125	Y
188	C	3	HERITAGE	220	Y
189	C	1	HERITAGE	185	Y
190	C	1	HERITAGE	142	Y
191	C	1	HERITAGE	122	Y
192	C	2	HERITAGE	144	Y
193	C	2	HERITAGE	128	Y
194	C	2	HERITAGE	124	Y
195	C	2	HERITAGE	144	Y
196	C	2	HERITAGE	123	Y
197	C	2	HERITAGE	145	Y
198	C	1	HERITAGE	115	Y
199	C	2	HERITAGE	130	Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
200	C	1	HERITAGE	140	N
201	C	1	HERITAGE	148	N
202	C	2	HERITAGE	131	N
203	C	2	HERITAGE	121	N
204	C	2	HERITAGE	130	Y
205	C	1	HERITAGE	127	Y
206	C	2	HERITAGE	137	N
207	C	2	HERITAGE	170	N
208	C	1	HERITAGE	175	N
209	C	1	HERITAGE	133	N
210	C	1	HERITAGE	120	N
211	C	1	HERITAGE	156	Y
212	C	1	HERITAGE	181	Y
213	V	1	HERITAGE	142	N
214	V	1	HERITAGE	120	N
223	C	1	HERITAGE	162	N
224	C	1	HERITAGE	133	N
225	C	1	HERITAGE	112	Y
226	C	2	HERITAGE	139	Y
227	C	2	HERITAGE	212	Y
228	C	2	HERITAGE	150	N
229	V	1	HERITAGE	115	Y
230	C	2	HERITAGE	152	Y
231	V	2	HERITAGE	110	Y
232	C	2	HERITAGE	117	N
233	C	1	HERITAGE	129	Y
234	C	1	HERITAGE	142	N
235	C	1	HERITAGE	130	N
236	C	1	HERITAGE	127	N
237	V	2			N
238	V	2			N
239	V	3			N
240	V	4			N
241	V	2			Y
242	V	2			N
243	V	2			N
244	V	2			N
245	V	2			N
246	V	2			Y
247	V	2			N
248	V	2			N
249	V	3			N
250	V	2			N
251	V	3			N
252	V	2			N
253	V	2			N
254	V	2			N
255	V	2			N
256	V	2			N
257	V	2			Y
258	V	4			N
259	V	3			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
260	V	2			N
261	V	2			Y
262	V	2			Y
263	V	3			Y
264	V	3			Y
265	V	2			Y
266	V	2			Y
267	V	2			N
268	V	2			N
269	V	2			N
270	V	2			N
271	V	2			N
272	C	2			N
273	C	2			Y
274	V	2			Y
281	C	2			N
282	C	2			Y
283	C	2			Y
284	C	2			Y
285	C	2			Y
286	C	2			Y
287	C	2			Y
288	C	2			Y
289	C	2			Y
290	C	2			N
291	C	2			N
292	C	2			N
293	C	2			N
294	V	2			N
295	V	2			N
296	C	2			N
297	C	2			N
298	C	2			N
299	C	1			N
300	C	2			N
301	C	2			N
302	C	1			N
303	C	2			N
304	C	2			N
306	C	2			N
307	V	4			Y
308	V	2			Y
309	V	3			N
310	V	2			N
311	V	2			N
312	V	2			N
313	V	2			N
314	V	3			N
315	V	3			N
316	V	2			N
317	V	2			N
318	V	3			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
319	V	3			N
320	V	2			N
321	V	2			N
322	V	2			N
323	V	2			N
324	V	2			N
325	V	3			N
326	V	2			N
327	V	2			N
328	V	2			Y
329	V	1			N
330	V	2			Y
331	V	3			Y
332	V	2			Y
333	V	2			N
334	V	2			N
335	V	2			N
336	V	2			Y
337	V	2			Y
338	V	2			Y
339	C	4			N
340	V	2			N
341	V	2			N
342	V	3			Y
343	V	2			Y
344	V	3			Y
345	V	2			Y
346	V	2			N
347	V	2			N
348	V	2			N
349	C	1			N
350	V	2			N
351	V	2			N
352	V	4			N
353	V	5			N
354	V	1			N
355	V	1			N
356	V	2			N
357	V	2			N
358	V	2			N
359	V	2			N
360	C	4			N
361	V	2			N
362	V	2			N
363	V	2			N
364	V	2			N
365	V	2			N
366	V	2			N
367	V	2			N
368	V	2			N
369	V	2			N
370	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
371	V	2			N
372	V	2			N
373	V	2			Y
374	V	2			Y
375	V	2			Y
376	V	2			Y
377	V	2			Y
378	C	2			N
379	V	2			Y
380	V	2			Y
381	V	2			N
382	V	2			Y
383	V	2			Y
384	V	2			Y
385	V	2			Y
386	C	2			N
387	C	2			N
388	C	2			N
389	C	1			N
391	C	2			N
392	C	2			N
393	C	2			N
394	C	3			N
395	C	2			N
396	C	2			N
397	C	2			N
398	C	2			N
399	C	2			N
400	C	3			N
401	C	2			N
402	C	2			N
403	C	2			N
404	C	2			N
405	C	2			N
406	C	2			N
407	C	3			N
408	C	2			N
409	C	2			N
410	C	3			N
411	C	2			N
412	C	2			N
413	C	2			N
414	C	2			N
415	C	2			N
416	C	2			N
417	C	2			N
418	C	2			N
419	C	2			N
420	C	2			N
421	C	2			N
422	C	2			N
423	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
424	C	1			N
425	C	2			Y
426	C	2			Y
427	C	2			Y
428	C	2			Y
429	C	2			N
430	C	2			Y
431	C	2			Y
432	C	2			Y
433	C	2			Y
434	C	2			Y
435	C	2			Y
436	C	2			Y
437	C	2			N
438	C	2			N
439	C	2			N
440	C	2			N
441	C	2			N
442	C	2			N
443	C	2			N
444	C	2			N
445	C	2			N
446	C	2			N
447	C	2			N
448	C	2			N
449	C	2			N
450	C	2			N
451	C	2			N
452	C	2			N
453	C	2			N
454	C	2			N
455	C	2			N
456	C	2			N
457	C	2			N
458	C	2			N
459	C	2			Y
460	C	2			N
461	C	2			N
462	C	2			N
463	C	2			N
464	C	2			N
465	C	2			N
466	C	2			N
467	C	2			N
468	C	2			N
469	C	2			N
470	C	2			N
471	C	2			N
472	C	4			N
473	C	1			N
474	C	2			N
475	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
476	C	2			N
477	C	2			Y
478	C	2			Y
479	C	2			N
480	C	2			N
481	C	2			N
482	C	2			N
483	C	2			N
484	C	2			N
485	C	2			N
486	C	2			N
487	C	2			N
488	C	2			N
489	C	2			N
490	C	2			N
491	C	2			N
492	C	2			N
493	C	2			N
494	C	2			Y
495	C	2			N
496	C	2			N
497	C	2			N
498	C	2			N
499	C	2			N
500	C	2			N
501	C	2			N
502	C	2			N
503	C	2			N
504	C	1			Y
505	C	2			N
506	C	2			N
507	C	2			N
508	C	2			N
509	C	2			N
510	C	2			N
511	C	2			N
512	C	2			N
513	C	2			N
514	C	2			N
515	C	2			N
516	C	1			Y
517	C	2			Y
518	C	1			Y
519	C	2			Y
520	C	2			N
521	C	2			N
522	C	2			N
523	C	2			N
524	C	2			N
525	C	5			N
526	C	5			N
527	C	5			N

TREE I.D.	TYPE C/V	HEALTH (I - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
528	C	5			N
529	C	5			N
530	C	2			N
531	C	2			N
532	C	2			N
533	C	2			N
534	C	2			N
535	C	2			N
536	C	2			N
537	C	2			N
538	C	2			N
539	C	2			N
540	C	2			N
541	C	2			N
542	C	2			N
543	C	2			N
544	C	2			N
545	C	2			N
546	C	2			N
547	C	2			N
548	C	2			N
549	C	2			N
550	C	2			N
551	C	2			N
552	C	2			N
553	C	2			N
554	C	2			N
555	C	1			N
556	C	3			N
557	C	2			N
558	C	2			N
559	C	2			N
560	C	2			N
561	C	2			N
562	C	2			N
563	C	2			N
564	C	2			N
565	C	2			N
566	C	2			N
567	C	2			N
568	C	2			N
569	C	2			N
570	C	2			N
571	C	2			N
572	C	2			N
573	C	2			N
574	C	2			N
575	C	2			N
576	C	2			N
577	C	2			N
578	C	2			N
579	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
580	C	2			N
581	C	2			N
582	C	2			N
583	C	2			N
584	C	2			N
585	C	2			N
586	C	2			N
587	C	2			N
588	C	2			N
589	C	2			N
590	C	2			N
591	C	2			N
592	C	2			N
593	C	2			N
594	C	2			N
595	C	1			N
596	C	5			N
597	C	4			N
598	C	3			N
599	C	3			N
600	C	2			N
601	C	2			N
602	C	2			N
603	C	2			N
604	C	2			N
605	C	2			N
606	C	2			N
607	C	2			N
608	C	2			N
609	C	2			N
610	C	1			N
611	C	3			N
612	C	3			N
613	C	2			N
614	C	2			N
615	C	2			N
616	C	2			N
617	C	2			N
618	C	2			N
619	C	2			N
620	C	2			N
621	C	2			N
622	C	2			N
623	C	2			N
624	C	2			N
625	C	2			N
626	C	2			N
627	C	2			N
628	C	2			N
629	C	2			N
630	C	2			N
631	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
632	C	2			N
633	C	2			N
634	C	2			N
635	C	2			N
636	C	2			N
637	C	2			N
638	C	2			N
639	C	2			N
640	C	2			N
641	C	2			N
642	C	2			N
643	C	2			N
644	C	2			N
645	C	2			N
646	C	2			N
647	C	2			N
648	C	2			N
649	C	2			N
650	C	2			N
651	C	2			N
652	C	2			N
653	C	2			N
654	C	2			N
655	C	2			N
656	C	2			N
657	C	2			N
658	C	2			N
659	C	2			N
660	C	2			N
661	C	2			N
662	C	2			N
663	C	2			N
664	C	2			N
665	C	2			N
666	C	2			N
667	C	2			N
668	C	3			N
669	C	2			N
670	C	2			N
671	C	2			N
672	C	2			N
673	C	2			N
674	C	2			N
675	C	2			N
676	C	2			N
677	C	1			N
678	C	2			N
679	C	2			N
680	C	2			N
681	C	2			N
682	C	2			N
683	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
684	C	2			N
685	C	2			N
686	C	2			N
687	C	2			N
688	C	2			N
689	C	2			N
690	C	2			N
691	C	2			N
692	C	2			N
693	C	2			N
694	C	2			N
695	C	2			N
696	C	2			N
697	C	2			N
698	C	2			N
699	C	2			N
700	C	2			N
701	C	2			N
702	C	2			N
703	C	2			N
704	C	5			N
705	C	2			N
706	C	2			N
707	C	2			N
708	C	2			N
709	C	2			N
710	C	2			N
711	C	2			N
712	C	2			N
713	C	2			N
714	C	2			N
715	C	2			N
716	C	2			N
717	C	2			N
718	C	2			N
719	C	2			N
720	C	2			N
721	C	2			N
722	C	2			N
723	C	2			N
724	C	2			N
725	C	2			N
726	C	2			N
727	C	2			N
728	C	2			N
729	C	2			N
730	C	2			N
731	C	2			N
732	C	2			N
733	C	2			Y
734	C	2			N
735	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
736	C	2			N
737	C	2			N
738	C	2			Y
739	C	2			Y
740	C	2			N
741	C	2			N
742	C	2			N
743	C	2			N
744	C	2			Y
745	C	2			N
746	C	2			N
747	C	2			N
748	C	2			N
749	C	2			N
750	C	3			N
751	C	2			N
752	C	2			N
753	C	2			N
754	C	2			N
755	C	2			N
756	C	2			N
757	C	2			N
758	C	2			N
759	C	2			N
760	C	2			N
761	C	2			N
762	C	2			N
763	C	2			N
764	C	2			N
765	C	2			N
766	C	2			N
767	C	2			N
768	C	2			N
769	C	2			N
770	C	2			N
771	C	2			N
772	C	2			N
773	C	2			N
774	C	2			N
775	C	2			N
776	C	2			N
777	C	2			N
778	C	2			N
779	C	2			N
780	C	2			N
781	C	2			N
782	C	2			N
783	C	2			N
784	C	2			N
785	C	2			N
786	C	2			N
787	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
788	C	2			N
789	C	2			N
790	C	2			N
791	C	2			N
792	C	2			N
793	C	2			N
794	C	2			N
795	C	2			N
796	C	2			N
797	C	2			N
798	C	2			N
799	C	2			N
800	C	2			N
801	C	2			N
802	C	2			N
803	C	2			N
804	C	2			N
805	C	2			N
806	C	2			N
807	C	2			N
808	C	2			N
809	C	2			N
810	C	2			N
811	C	2			N
812	C	2			N
813	C	2			N
814	C	2			N
815	C	2			N
816	C	2			N
817	C	2			N
818	C	2			N
819	C	2			N
820	C	2			N
821	C	2			N
822	C	2			N
823	C	2			N
824	C	2			N
825	C	2			N
826	C	2			N
827	C	2			N
828	C	2			N
829	C	2			N
830	C	2			N
831	C	2			N
832	C	2			N
833	C	2			N
834	C	2			N
835	C	2			N
836	C	2			N
837	C	2			N
838	C	2			N
839	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
840	C	2			N
841	C	2			N
842	C	2			N
843	C	2			N
844	C	2			N
845	C	2			N
846	C	2			N
847	C	2			N
848	C	2			N
849	C	2			N
850	C	2			N
851	C	2			N
852	C	2			N
853	C	2			N
854	C	2			N
855	C	2			N
856	C	2			N
857	C	2			N
858	C	2			N
859	C	2			N
860	C	2			N
861	C	2			N
862	C	2			N
863	C	2			N
864	C	2			N
865	C	2			N
866	C	2			N
867	C	2			N
868	C	2			N
869	C	2			N
870	C	2			N
871	C	2			N
872	C	2			N
873	C	2			N
874	C	2			N
875	C	2			N
876	C	2			N
877	C	2			N
878	C	2			N
879	C	2			N
880	C	2			N
881	C	2			Y
882	C	2			Y
883	C	2			Y
884	C	2			Y
885	C	2			Y
886	C	2			Y
887	C	2			Y
888	C	2			Y
889	C	2			Y
890	C	2			Y
891	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
892	C	2			N
893	C	2			N
894	V	3			Y
895	V	2			Y
896	V	4			Y
897	V	5			Y
898	V	4			Y
899	V	3			N
900	V	3			N
901	V	2			Y
902	V	5			Y
903	V	4			N
904	V	2			N
905	V	3			N
906	V	2			Y
907	V	1			Y
908	V	1			Y
909	V	2			N
910	V	2			N
911	V	2			N
912	V	2			N
913	V	3			N
914	V	2			N
915	V	2			N
916	V	2			N
917	V	2			N
918	V	2			N
919	V	2			N
920	V	2			N
921	V	2			N
922	V	2			Y
923	V	2			N
924	V	2			N
925	V	3			N
926	V	2			N
927	V	2			N
928	V	2			N
929	C	2			N
930	C	1			N
931	V	2			N
932	V	4			N
933	V	1			N
934	V	1			N
935	V	1			Y
936	V	2			Y
937	C	2			Y
938	V	2			Y
939	V	2			N
940	V	2			N
941	V	2			N
942	V	2			N
943	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
944	V	2			N
945	V	2			N
946	V	2			N
947	V	2			N
948	V	2			N
949	V	2			N
950	V	2			N
951	V	2			N
952	V	2			N
953	V	2			N
954	V	2			N
955	V	2			N
956	V	2			N
957	V	2			N
958	V	2			N
959	V	2			N
960	V	2			N
961	V	2			N
962	V	2			N
963	V	2			N
964	V	2			N
965	V	2			N
966	V	2			N
967	V	2			N
968	V	2			N
969	V	2			N
970	V	2			N
971	V	2			N
972	C	2			N
973	C	2			N
974	V	2			Y
975	V	2			N
976	V	2			N
977	V	2			N
978	V	2			N
979	V	2			N
980	V	2			N
981	V	2			N
982	V	2			N
983	V	2			N
984	V	2			N
985	V	2			N
986	V	2			N
987	V	2			N
988	V	2			N
989	V	2			N
990	V	2			N
991	V	2			N
992	V	2			N
993	V	2			N
994	V	2			N
995	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
996	V	2			N
997	V	2			N
998	V	2			N
999	V	2			N
1,000	V	2			N
1,001	C	2			N
1,002	C	2			N
1,003	C	2			N
1,004	V	2			N
1,005	V	2			N
1,006	V	2			N
1,007	V	2			N
1,008	V	2			N
1,009	V	2			N
1,010	V	2			N
1,011	V	2			N
1,012	V	2			N
1,013	V	2			N
1,014	V	2			N
1,015	V	2			N
1,016	V	2			N
1,017	V	2			N
1,018	V	2			N
1,019	V	2			N
1,020	V	2			N
1,021	V	2			N
1,022	V	2			N
1,023	V	2			N
1,024	V	2			N
1,025	V	2			N
1,026	V	2			N
1,027	V	2			N
1,028	V	2			N
1,029	V	2			N
1,030	V	2			N
1,031	V	2			N
1,032	V	2			N
1,033	V	2			N
1,034	V	2			N
1,035	V	2			N
1,036	V	2			N
1,037	V	2			N
1,038	V	2			N
1,039	V	2			N
1,040	V	2			N
1,041	V	2			N
1,042	V	2			N
1,043	V	2			N
1,044	V	2			N
1,045	V	2			N
1,046	V	2			N
1,047	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,048	C	3			N
1,049	C	3			N
1,050	C	3			N
1,051	C	2			N
1,052	C	3			N
1,053	C	3			N
1,054	C	3			N
1,055	C	3			N
1,056	C	2			N
1,057	C	2			N
1,058	C	4			N
1,059	C	4			N
1,060	C	3			N
1,061	C	3			N
1,062	C	3			N
1,063	C	3			N
1,064	C	3			N
1,065	C	4			N
1,066	C	3			N
1,067	C	3			N
1,068	C	2			N
1,069	C	2			N
1,070	C	2			N
1,071	C	2			N
1,072	C	2			N
1,073	C	2			N
1,074	C	2			N
1,075	C	2			N
1,076	C	2			N
1,077	C	2			N
1,078	C	2			N
1,079	C	2			N
1,080	C	2			N
1,081	C	2			N
1,082	C	2			N
1,083	C	2			N
1,084	C	2			N
1,085	C	2			Y
1,086	C	2			Y
1,087	C	2			Y
1,088	C	3			Y
1,089	C	2			Y
1,090	C	2			Y
1,091	C	2			Y
1,092	C	2			Y
1,093	C	3			Y
1,094	C	2			Y
1,095	C	2			Y
1,096	C	2			Y
1,097	C	2			Y
1,098	C	2			Y
1,099	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,100	C	2			Y
1,101	C	2			Y
1,102	C	2			Y
1,103	C	1			Y
1,104	C	3			Y
1,105	C	1			Y
1,106	C	3			Y
1,107	C	2			Y
1,108	C	2			Y
1,109	C	2			Y
1,110	C	2			Y
1,111	C	2			Y
1,112	C	2			Y
1,113	C	2			Y
1,114	C	2			Y
1,115	C	2			Y
1,116	C	2			Y
1,117	C	2			Y
1,118	C	2			Y
1,119	C	1			Y
1,120	C	2			Y
1,121	C	2			Y
1,122	C	2			Y
1,123	C	2			Y
1,124	C	2			Y
1,125	C	2			Y
1,126	C	2			Y
1,127	C	2			Y
1,128	C	2			Y
1,129	C	2			Y
1,130	C	2			Y
1,131	C	2			Y
1,132	C	2			Y
1,133	C	2			Y
1,134	C	2			Y
1,135	C	1			Y
1,136	C	1			Y
1,137	C	1			Y
1,138	C	2			Y
1,139	C	2			Y
1,140	C	2			Y
1,141	C	2			Y
1,142	C	2			Y
1,143	C	2			Y
1,144	C	2			Y
1,145	C	2			Y
1,146	C	2			Y
1,147	C	2			Y
1,148	C	2			Y
1,149	C	3			Y
1,150	C	2			Y
1,151	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,152	C	2			Y
1,153	C	2			Y
1,154	C	2			Y
1,155	C	3			Y
1,156	C	3			Y
1,157	C	2			Y
1,158	C	5			Y
1,159	C	5			Y
1,160	C	2			Y
1,161	C	2			Y
1,162	C	2			Y
1,163	C	2			Y
1,164	C	2			Y
1,165	C	2			Y
1,166	C	4			Y
1,167	C	3			Y
1,168	C	4			Y
1,169	C	2			N
1,170	C	2			N
1,171	C	3			N
1,172	C	2			N
1,173	C	2			N
1,174	C	2			N
1,175	C	2			N
1,176	C	3			Y
1,177	C	5			Y
1,178	C	2			Y
1,179	C	2			Y
1,180	C	2			Y
1,181	C	2			Y
1,182	C	2			Y
1,183	C	2			Y
1,184	C	2			Y
1,185	C	2			Y
1,186	C	2			Y
1,187	C	2			Y
1,188	C	2			Y
1,189	C	2			Y
1,190	C	2			Y
1,191	C	2			Y
1,192	C	2			Y
1,193	C	5			Y
1,194	C	3			Y
1,195	C	2			Y
1,196	C	2			Y
1,197	C	2			N
1,198	C	2			N
1,199	C	2			N
1,200	C	4			Y
1,201	C	4			Y
1,202	C	2			N
1,203	C	5			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,204	V	1			Y
1,205	C	4			Y
1,206	C	2			N
1,207	C	4			N
1,208	C	3			N
1,209	C	2			N
1,210	C	3			N
1,211	C	5			N
1,212	C	5			N
1,213	C	2			N
1,214	C	3			N
1,215	C	2			N
1,216	C	2			N
1,217	C	2			N
1,218	C	3			N
1,219	C	5			N
1,220	C	2			N
1,221	C	4			N
1,222	C	4			Y
1,223	C	2			Y
1,224	C	2			N
1,225	C	3			N
1,226	C	2			N
1,227	C	2			N
1,228	C	2			N
1,229	C	2			N
1,230	C	3			N
1,231	C	2			N
1,232	C	2			N
1,233	C	2			Y
1,234	C	2			Y
1,235	C	2			Y
1,236	C	2			Y
1,237	C	2			Y
1,238	C	3			Y
1,239	C	2			Y
1,240	C	2			Y
1,241	C	2			Y
1,242	C	2			Y
1,243	C	2			Y
1,244	C	2			N
1,245	C	3			Y
1,246	C	5			Y
1,247	C	2			Y
1,248	C	1			Y
1,249	C	4			Y
1,250	C	3			N
1,251	C	2			N
1,252	C	5			N
1,253	C	3			Y
1,254	C	3			Y
1,255	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,256	C	2			Y
1,257	C	5			Y
1,258	C	2			Y
1,259	C	2			Y
1,260	C	2			N
1,261	C	2			N
1,262	C	2			Y
1,263	C	2			N
1,264	C	2			N
1,265	C	3			N
1,266	C	2			N
1,267	C	2			N
1,268	C	2			N
1,269	C	2			N
1,270	C	2			N
1,271	C	2			N
1,272	C	2			N
1,273	C	2			Y
1,274	C	2			Y
1,275	C	2			Y
1,276	C	2			Y
1,277	C	2			Y
1,278	C	2			Y
1,279	C	2			Y
1,280	C	2			Y
1,281	C	2			Y
1,282	C	2			Y
1,283	C	2			Y
1,284	C	2			Y
1,285	C	2			Y
1,286	C	4			Y
1,287	C	3			Y
1,288	C	3			Y
1,289	C	2			Y
1,290	C	2			Y
1,291	C	2			Y
1,292	C	2			Y
1,293	C	2			Y
1,294	C	2			Y
1,295	C	2			Y
1,296	C	2			Y
1,297	C	2			Y
1,298	C	2			Y
1,299	C	2			Y
1,300	C	2			Y
1,301	C	2			Y
1,302	C	2			Y
1,303	C	2			Y
1,304	C	2			Y
1,305	C	3			Y
1,306	C	3			Y
1,307	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,308	C	2			Y
1,309	C	2			Y
1,310	C	2			Y
1,311	C	2			Y
1,312	C	2			Y
1,313	C	2			Y
1,314	C	2			Y
1,315	C	2			Y
1,316	C	2			Y
1,317	C	2			Y
1,318	C	2			Y
1,319	C	2			Y
1,320	C	2			Y
1,321	C	2			Y
1,322	C	2			Y
1,323	C	2			Y
1,324	C	2			Y
1,325	C	2			Y
1,326	C	2			Y
1,327	C	2			Y
1,328	C	2			Y
1,329	C	2			Y
1,330	C	2			Y
1,331	C	2			Y
1,332	C	2			Y
1,333	C	2			Y
1,334	C	2			Y
1,335	C	2			Y
1,336	C	2			Y
1,337	C	2			Y
1,338	C	2			Y
1,339	C	2			Y
1,340	C	2			Y
1,341	C	2			Y
1,342	C	2			Y
1,343	C	2			Y
1,344	C	2			Y
1,345	C	2			Y
1,346	C	2			Y
1,347	C	2			Y
1,348	C	2			Y
1,349	C	2			Y
1,350	C	2			Y
1,351	C	2			Y
1,352	C	2			Y
1,353	C	2			Y
1,354	C	2			Y
1,355	C	2			Y
1,356	C	2			Y
1,357	C	2			Y
1,358	C	4			Y
1,359	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,360	C	2			Y
1,361	C	2			Y
1,362	C	2			Y
1,363	C	2			Y
1,364	C	2			Y
1,365	C	2			Y
1,366	C	2			Y
1,367	C	2			Y
1,368	C	2			Y
1,369	C	2			Y
1,370	C	2			Y
1,371	C	2			Y
1,372	C	2			Y
1,373	C	2			Y
1,374	C	2			Y
1,375	C	2			Y
1,376	C	2			Y
1,377	C	3			Y
1,378	C	2			Y
1,379	C	2			Y
1,380	C	2			Y
1,381	C	2			Y
1,382	C	2			Y
1,383	C	2			Y
1,384	C	2			Y
1,385	C	2			Y
1,386	C	1			Y
1,387	C	2			Y
1,388	C	2			Y
1,389	C	2			Y
1,390	C	2			Y
1,391	C	2			Y
1,392	C	2			Y
1,393	C	2			Y
1,394	C	2			Y
1,395	C	2			Y
1,396	C	2			Y
1,397	C	2			Y
1,398	C	2			Y
1,399	C	1			Y
1,400	C	2			Y
1,401	C	2			Y
1,402	C	2			Y
1,403	C	2			Y
1,404	C	2			Y
1,405	C	2			Y
1,406	C	2			Y
1,407	C	2			Y
1,408	C	2			Y
1,409	C	2			Y
1,410	C	1			Y
1,411	C	1			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,412	C	2			Y
1,413	C	3			Y
1,414	C	2			Y
1,415	C	2			Y
1,416	C	2			Y
1,417	C	2			Y
1,418	C	2			Y
1,419	C	2			Y
1,420	C	5			Y
1,421	C	2			Y
1,422	C	3			Y
1,423	C	2			Y
1,424	C	2			Y
1,425	C	2			Y
1,426	C	2			Y
1,427	C	2			Y
1,428	C	2			Y
1,429	C	5			Y
1,430	C	3			Y
1,431	C	2			Y
1,432	C	2			Y
1,433	C	2			Y
1,434	C	2			Y
1,435	C	2			Y
1,436	C	2			Y
1,437	C	2			Y
1,438	C	2			N
1,439	C	3			Y
1,440	C	3			Y
1,441	C	2			Y
1,442	C	2			Y
1,443	C	2			N
1,444	C	2			N
1,445	C	2			N
1,446	C	2			N
1,447	C	2			N
1,448	C	2			Y
1,449	C	2			N
1,450	C	2			N
1,451	C	2			N
1,452	C	2			N
1,453	C	2			N
1,457	C	4			N
1,458	C	2			N
1,459	C	2			N
1,460	C	2			N
1,461	C	2			N
1,462	C	2			N
1,463	C	2			N
1,464	C	2			N
1,465	C	2			N
1,466	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,467	C	2			N
1,468	C	2			N
1,469	C	2			N
1,470	C	3			Y
1,471	C	2			Y
1,472	C	2			Y
1,473	C	2			Y
1,474	C	3			N
1,475	C	1			N
1,476	C	2			N
1,477	C	2			N
1,478	C	2			N
1,479	C	2			Y
1,480	C	2			Y
1,481	C	2			Y
1,482	C	2			N
1,483	C	4			N
1,484	C	2			Y
1,485	C	5			N
1,486	C	5			Y
1,487	C	2			Y
1,488	C	2			Y
1,489	C	2			Y
1,490	C	2			Y
1,491	C	2			Y
1,492	C	2			Y
1,493	C	2			Y
1,494	C	2			Y
1,495	C	2			Y
1,496	C	2			Y
1,497	C	2			Y
1,498	C	2			Y
1,499	C	2			Y
1,500	C	2			Y
1,501	C	2			Y
1,502	C	2			Y
1,503	C	2			Y
1,504	C	5			Y
1,505	C	1			Y
1,506	C	1			Y
1,507	C	2			Y
1,508	C	2			Y
1,509	C	2			Y
1,510	C	1			Y
1,511	C	2			Y
1,512	C	1			Y
1,513	C	2			Y
1,514	C	2			Y
1,515	C	2			Y
1,516	C	2			Y
1,517	C	2			Y
1,518	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,519	C	2			Y
1,520	C	1			Y
1,521	C	1			Y
1,522	C	5			Y
1,523	C	2			Y
1,524	C	2			Y
1,525	C	2			Y
1,526	C	2			Y
1,527	C	2			Y
1,528	C	2			Y
1,529	C	2			Y
1,530	C	2			Y
1,531	C	2			Y
1,532	C	2			Y
1,533	C	2			Y
1,534	C	2			Y
1,535	C	2			Y
1,536	C	1			Y
1,537	C	5			Y
1,538	C	3			N
1,539	C	1			N
1,540	C	1			N
1,541	C	1			N
1,542	C	2			Y
1,543	C	2			Y
1,544	C	2			Y
1,545	C	1			Y
1,546	C	2			Y
1,547	C	1			Y
1,548	C	2			Y
1,549	C	1			Y
1,550	C	2			Y
1,551	C	2			Y
1,552	C	2			Y
1,553	C	2			Y
1,554	C	2			Y
1,555	C	2			Y
1,556	C	1			Y
1,557	C	2			N
1,558	C	2			Y
1,559	C	2			Y
1,560	C	2			N
1,561	C	1			N
1,562	C	2			N
1,563	C	2			N
1,564	C	2			N
1,565	C	2			N
1,566	C	1			N
1,567	C	1			Y
1,568	C	1			Y
1,569	C	2			Y
1,570	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,571	C	2			N
1,572	C	2			N
1,573	C	2			N
1,574	C	2			Y
1,575	C	2			N
1,576	C	2			N
1,577	C	2			N
1,578	C	2			N
1,579	C	2			N
1,580	C	2			Y
1,581	C	2			Y
1,582	C	2			Y
1,583	C	2			Y
1,584	C	2			Y
1,585	C	2			Y
1,586	C	5			Y
1,587	C	1			Y
1,588	C	2			Y
1,589	C	2			Y
1,590	C	1			N
1,591	C	2			Y
1,594	C	3			Y
1,595	C	2			Y
1,596	C	2			Y
1,597	C	2			Y
1,598	C	3			Y
1,599	C	3			Y
1,600	C	3			Y
1,601	C	2			Y
1,602	C	3			Y
1,603	C	3			Y
1,604	C	3			Y
1,605	C	2			Y
1,606	C	2			Y
1,607	C	3			Y
1,608	C	3			Y
1,609	C	2			Y
1,610	C	2			Y
1,611	C	2			Y
1,612	C	2			Y
1,613	C	4			Y
1,614	C	5			Y
1,615	C	3			Y
1,616	C	2			Y
1,617	C	2			Y
1,618	C	2			Y
1,619	C	2			Y
1,620	C	2			Y
1,621	C	2			Y
1,622	C	2			Y
1,623	C	5			Y
1,624	C	4			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,625	C	3			Y
1,626	C	2			Y
1,627	C	2			Y
1,628	C	2			Y
1,629	C	2			Y
1,630	C	2			Y
1,631	C	1			Y
1,632	C	1			Y
1,633	C	2			Y
1,634	C	2			Y
1,635	C	2			Y
1,636	C	2			Y
1,637	C	2			Y
1,638	C	2			Y
1,639	C	3			Y
1,640	C	2			Y
1,641	C	2			Y
1,642	C	2			Y
1,643	C	3			Y
1,644	C	2			Y
1,645	C	2			Y
1,646	C	2			Y
1,647	C	2			Y
1,648	C	2			Y
1,649	C	2			Y
1,650	C	2			Y
1,651	C	2			Y
1,652	C	2			Y
1,653	C	2			Y
1,654	C	3			Y
1,655	C	3			Y
1,656	C	3			Y
1,657	C	3			Y
1,658	C	2			Y
1,659	C	2			Y
1,660	C	2			Y
1,661	C	2			Y
1,662	C	2			Y
1,663	C	2			Y
1,664	C	2			Y
1,665	C	3			Y
1,666	C	2			Y
1,667	C	2			Y
1,669	C	2			N
1,670	C	2			N
1,671	C	2			N
1,672	C	2			N
1,673	C	3			Y
1,674	C	2			N
1,675	C	2			Y
1,676	C	1			Y
1,677	C	1			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,678	C	1			Y
1,679	C	2			Y
1,680	C	2			Y
1,681	C	2			Y
1,682	C	2			Y
1,683	C	2			Y
1,684	C	2			Y
1,685	C	2			Y
1,686	C	3			Y
1,687	C	5			Y
1,688	C	2			Y
1,689	C	1			Y
1,690	C	1			Y
1,691	C	5			Y
1,692	C	3			Y
1,693	C	2			Y
1,694	C	1			Y
1,695	C	2			Y
1,696	C	2			Y
1,697	C	2			Y
1,698	C	2			Y
1,699	C	2			Y
1,700	C	1			Y
1,701	C	1			Y
1,702	C	1			Y
1,703	C	2			Y
1,704	C	2			Y
1,705	C	2			Y
1,706	C	2			Y
1,707	C	2			Y
1,708	C	2			Y
1,709	C	2			Y
1,710	C	2			Y
1,711	C	2			Y
1,712	C	2			N
1,713	C	2			N
1,714	C	2			N
1,715	C	2			Y
1,716	C	2			Y
1,717	C	2			Y
1,718	C	2			Y
1,719	C	2			Y
1,720	C	2			Y
1,721	C	2			Y
1,722	C	2			Y
1,723	C	2			Y
1,724	C	2			Y
1,725	C	2			Y
1,726	C	2			Y
1,727	C	2			Y
1,728	C	2			N
1,729	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,730	C	2			N
1,731	C	2			N
1,732	C	2			N
1,733	C	2			N
1,734	C	2			Y
1,735	C	2			Y
1,736	C	1			Y
1,737	C	2			Y
1,738	C	2			N
1,739	C	2			N
1,740	C	2			N
1,741	C	2			N
1,742	C	2			N
1,743	C	2			N
1,744	C	4			N
1,745	C	4			N
1,746	C	2			N
1,747	C	2			N
1,748	C	2			N
1,749	C	2			N
1,750	C	2			N
1,751	C	2			Y
1,752	C	2			Y
1,753	C	2			Y
1,754	C	2			N
1,755	C	3			N
1,756	C	2			N
1,757	C	2			N
1,758	C	2			N
1,759	C	2			N
1,760	C	2			Y
1,761	C	2			Y
1,762	C	2			Y
1,763	C	3			Y
1,764	C	2			N
1,765	C	2			N
1,766	C	2			N
1,767	C	2			N
1,768	C	2			N
1,769	C	2			N
1,770	C	2			N
1,771	C	2			N
1,772	C	2			N
1,773	C	2			N
1,774	C	2			N
1,775	C	2			N
1,776	C	2			N
1,777	C	2			N
1,778	C	3			N
1,779	C	2			N
1,780	C	2			N
1,781	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,782	C	4			N
1,783	C	2			N
1,784	C	2			N
1,785	C	2			N
1,786	C	2			N
1,787	C	3			N
1,788	C	3			N
1,789	C	2			N
1,790	C	2			N
1,791	C	2			N
1,792	C	2			N
1,793	C	2			N
1,794	C	2			N
1,795	C	2			N
1,796	C	3			N
1,797	C	2			N
1,798	C	2			N
1,799	C	4			N
1,800	C	3			N
1,801	C	2			N
1,802	C	2			N
1,803	C	3			N
1,804	C	3			N
1,805	C	2			N
1,806	C	2			N
1,807	C	2			N
1,808	C	2			N
1,809	C	2			N
1,810	C	2			N
1,811	C	2			N
1,812	C	2			N
1,813	C	2			N
1,814	C	2			N
1,815	C	2			N
1,816	C	2			N
1,817	C	2			N
1,818	C	2			N
1,819	C	2			N
1,820	C	2			N
1,821	C	2			N
1,822	C	2			N
1,823	C	1			N
1,824	C	1			Y
1,825	C	2			Y
1,826	C	2			Y
1,827	C	2			Y
1,828	C	1			Y
1,830	C	2			Y
1,832	C	2			Y
1,833	C	1			Y
1,834	C	2			N
1,835	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,836	C	2			N
1,837	C	3			N
1,838	C	2			N
1,839	C	2			N
1,840	C	2			N
1,841	C	2			N
1,842	C	2			N
1,843	C	2			N
1,844	C	2			N
1,845	C	2			N
1,846	C	2			N
1,847	C	2			N
1,848	C	2			N
1,849	C	2			N
1,850	C	2			N
1,851	C	2			N
1,852	C	2			N
1,853	C	2			N
1,854	C	2			N
1,855	C	2			N
1,856	C	2			N
1,857	C	2			N
1,858	C	2			N
1,859	C	2			N
1,860	C	2			N
1,861	C	2			N
1,862	C	2			N
1,863	C	2			N
1,864	C	2			N
1,865	C	2			N
1,866	C	2			N
1,867	C	2			N
1,868	C	2			N
1,869	C	2			N
1,870	C	2			N
1,871	C	2			N
1,872	C	2			N
1,873	C	2			N
1,874	C	2			N
1,875	C	1			N
1,876	C	2			N
1,877	C	2			N
1,878	C	2			N
1,880	V	2			N
1,881	C	2			Y
1,882	C	2			N
1,883	C	2			N
1,884	C	2			N
1,885	C	2			N
1,886	C	2			N
1,887	C	3			N
1,888	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,889	C	2			N
1,890	C	2			N
1,891	C	2			N
1,892	C	2			N
1,893	C	2			N
1,894	C	2			N
1,895	C	2			N
1,896	C	2			N
1,897	V	2			N
1,898	V	2			N
1,899	V	2			N
1,900	V	2			N
1,901	C	2			N
1,902	C	2			N
1,903	C	2			N
1,904	C	2			N
1,905	C	2			N
1,906	C	2			N
1,907	C	2			N
1,908	C	2			N
1,909	C	2			N
1,910	C	2			N
1,911	C	2			N
1,912	C	2			N
1,913	C	2			N
1,914	C	2			N
1,915	C	2			N
1,916	C	2			N
1,917	C	2			N
1,918	V	1			N
1,919	V	2			N
1,920	V	4			N
1,921	C	2			N
1,922	V	2			N
1,923	V	2			N
1,924	V	2			N
1,925	V	2			N
1,926	V	2			N
1,927	C	2			N
1,928	V	2			N
1,929	V	2			N
1,930	V	2			N
1,931	V	2			N
1,932	V	2			N
1,933	V	2			N
1,934	V	2			N
1,935	V	2			N
1,936	V	2			N
1,937	V	2			N
1,938	V	2			N
1,939	V	2			N
1,940	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,941	V	2			N
1,942	V	2			N
1,943	V	2			N
1,944	V	2			N
1,945	V	2			N
1,946	V	2			N
1,947	V	2			N
1,948	V	2			N
1,949	V	2			N
1,950	V	2			N
1,951	V	2			N
1,952	V	2			N
1,953	V	2			N
1,954	V	2			N
1,955	V	2			N
1,956	V	2			N
1,957	V	2			N
1,958	V	5			N
1,959	V	1			N
1,960	V	1			N
1,961	C	2			N
1,962	C	2			N
1,963	C	2			N
1,964	C	2			N
1,965	C	2			N
1,966	C	2			N
1,967	C	2			N
1,968	C	2			N
1,969	C	2			N
1,970	C	2			N
1,971	C	2			N
1,972	C	2			N
1,973	C	2			N
1,974	C	2			N
1,975	C	2			N
1,976	C	2			N
1,977	C	2			N
1,978	C	2			N
1,979	C	1			N
1,980	C	3			N
1,981	C	2			N
1,982	C	2			N
1,983	C	2			N
1,984	C	2			N
1,985	C	2			N
1,986	C	2			N
1,987	C	2			N
1,988	C	2			N
1,989	C	2			N
1,990	C	2			N
1,991	C	2			N
1,992	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
1,993	C	2			N
1,994	C	2			N
1,995	C	2			N
1,996	C	2			N
1,997	C	2			N
1,998	C	2			N
1,999	C	2			N
2,000	C	2			N
2,001	C	2			N
2,002	C	2			N
2,003	C	2			N
2,004	C	2			N
2,005	C	2			N
2,006	C	2			N
2,007	C	3			N
2,008	C	3			N
2,009	C	2			N
2,010	C	2			N
2,011	C	2			N
2,012	C	2			N
2,013	C	2			N
2,014	C	2			N
2,015	C	2			N
2,016	C	2			N
2,017	C	2			N
2,018	C	2			Y
2,019	C	2			N
2,020	C	2			N
2,021	C	2			N
2,022	C	2			N
2,023	C	2			N
2,024	C	2			N
2,025	C	2			N
2,026	C	2			N
2,027	C	2			N
2,028	C	2			Y
2,029	C	2			Y
2,030	C	2			N
2,031	C	2			N
2,032	C	2			N
2,033	C	2			N
2,034	C	2			N
2,035	C	2			N
2,036	C	2			N
2,037	C	2			N
2,038	C	2			Y
2,039	C	2			Y
2,040	C	2			Y
2,041	C	2			N
2,042	C	2			N
2,043	C	2			N
2,044	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,045	C	2			N
2,046	C	2			N
2,047	C	2			N
2,048	C	2			N
2,049	C	2			N
2,050	C	2			N
2,051	C	2			N
2,052	C	2			N
2,053	C	1			N
2,054	C	2			Y
2,055	C	4			N
2,056	C	2			N
2,057	C	2			N
2,058	C	2			N
2,059	C	2			N
2,060	C	2			N
2,061	C	2			N
2,062	C	2			N
2,063	C	2			N
2,064	C	2			N
2,065	C	2			N
2,066	C	2			N
2,067	C	2			N
2,068	C	2			N
2,069	C	2			N
2,070	C	2			N
2,071	C	2			N
2,072	C	2			N
2,073	C	2			N
2,074	C	2			N
2,075	C	2			N
2,076	C	2			N
2,077	C	2			N
2,078	C	2			N
2,079	C	2			N
2,080	C	2			N
2,081	C	2			N
2,082	C	2			N
2,083	C	2			N
2,084	C	5			N
2,085	C	2			N
2,086	C	2			N
2,087	C	2			N
2,088	C	2			N
2,089	C	2			N
2,090	C	2			N
2,091	C	2			N
2,092	C	2			N
2,093	C	2			N
2,094	C	2			N
2,095	C	2			N
2,096	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,097	C	2			N
2,098	C	2			N
2,099	C	2			N
2,100	C	2			N
2,101	C	2			N
2,102	C	2			N
2,103	C	2			N
2,104	C	2			N
2,105	C	2			N
2,106	C	2			N
2,107	C	2			N
2,108	C	2			N
2,109	V	2			N
2,110	V	2			N
2,111	C	2			N
2,112	C	2			N
2,113	C	2			N
2,114	C	2			N
2,115	C	2			N
2,116	C	2			N
2,117	C	2			N
2,118	C	2			N
2,119	C	2			N
2,120	C	2			N
2,121	C	2			N
2,122	C	2			N
2,123	C	2			N
2,124	C	2			N
2,125	C	2			N
2,126	C	2			N
2,127	C	2			N
2,128	C	2			N
2,129	C	2			N
2,130	C	2			N
2,131	C	2			N
2,132	C	2			N
2,133	C	2			N
2,134	C	2			N
2,135	C	2			N
2,136	C	2			N
2,137	C	2			N
2,138	C	2			N
2,139	C	2			N
2,140	C	2			N
2,141	C	2			N
2,142	C	2			N
2,143	C	2			N
2,144	C	2			N
2,145	C	2			N
2,146	C	2			N
2,147	C	2			N
2,148	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,149	C	2			N
2,150	C	2			N
2,151	C	2			N
2,152	C	2			N
2,153	C	2			N
2,154	C	2			N
2,155	C	2			N
2,156	C	2			N
2,157	C	2			N
2,158	C	2			N
2,159	C	2			N
2,160	C	2			N
2,161	C	2			N
2,162	C	2			N
2,163	C	2			N
2,164	C	2			N
2,165	C	2			N
2,166	C	2			N
2,167	C	2			N
2,168	C	2			N
2,169	C	2			N
2,170	C	2			N
2,171	C	2			N
2,172	C	2			N
2,173	C	2			N
2,174	C	2			N
2,175	C	2			N
2,176	C	2			N
2,177	C	2			N
2,178	C	2			N
2,179	C	2			N
2,180	C	2			N
2,181	C	2			N
2,182	C	2			N
2,183	C	2			N
2,184	C	2			N
2,185	C	2			N
2,186	C	2			N
2,187	C	2			N
2,188	C	2			N
2,189	C	2			N
2,190	C	2			N
2,191	C	4			N
2,192	C	3			N
2,193	C	3			N
2,194	C	2			N
2,195	C	2			N
2,196	C	2			N
2,197	C	1			N
2,198	C	3			N
2,199	C	2			N
2,200	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,201	C	2			N
2,202	C	2			N
2,203	C	2			N
2,204	C	2			N
2,205	C	2			N
2,206	C	2			N
2,207	C	2			N
2,208	C	2			N
2,209	C	2			N
2,210	C	2			N
2,211	C	2			N
2,212	C	2			N
2,213	C	2			N
2,214	C	2			N
2,215	C	2			N
2,216	C	2			N
2,217	C	2			N
2,218	C	2			N
2,219	C	2			N
2,220	C	2			N
2,221	C	2			N
2,222	C	2			N
2,223	C	2			N
2,224	C	2			N
2,225	C	2			N
2,226	C	2			N
2,227	C	2			N
2,228	C	2			N
2,229	C	2			N
2,230	C	2			N
2,231	C	2			N
2,232	C	2			N
2,233	C	2			N
2,234	C	2			N
2,235	C	2			N
2,236	C	2			N
2,237	C	2			N
2,238	C	2			N
2,239	C	2			N
2,240	C	2			N
2,241	C	2			N
2,242	C	2			N
2,243	C	2			N
2,244	C	2			N
2,245	C	2			N
2,246	C	2			N
2,247	C	2			N
2,248	C	2			N
2,249	C	2			N
2,250	C	2			N
2,251	C	2			N
2,252	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,253	C	2			N
2,254	C	2			N
2,255	C	2			N
2,256	C	2			N
2,257	C	2			N
2,258	C	2			N
2,259	C	2			N
2,260	C	2			N
2,261	C	2			N
2,262	C	2			Y
2,263	C	2			Y
2,264	C	2			Y
2,265	C	2			Y
2,266	C	2			Y
2,267	C	2			Y
2,268	C	2			Y
2,269	C	2			Y
2,270	C	2			Y
2,271	C	2			Y
2,272	C	3			Y
2,273	C	2			N
2,274	C	2			Y
2,275	C	3			Y
2,276	C	2			Y
2,277	C	2			Y
2,278	C	3			Y
2,279	C	2			Y
2,280	C	2			Y
2,281	C	2			Y
2,282	C	3			Y
2,283	C	2			N
2,284	C	2			N
2,285	C	5			N
2,286	C	2			N
2,287	C	2			N
2,288	C	2			N
2,289	C	1			N
2,290	C	2			N
2,291	C	2			N
2,292	C	2			N
2,293	C	2			Y
2,294	C	2			Y
2,295	C	2			Y
2,296	C	2			Y
2,297	C	1			Y
2,298	C	2			Y
2,299	C	2			Y
2,300	C	2			Y
2,301	C	2			Y
2,302	C	1			Y
2,303	C	1			Y
2,304	C	1			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,305	C	1			Y
2,306	C	1			Y
2,307	C	2			Y
2,308	C	2			Y
2,311	C	1			Y
2,312	C	1			Y
2,313	V	3			Y
2,314	C	3			Y
2,315	C	2			Y
2,319	C	1			N
2,320	C	1			N
2,321	C	1			N
2,322	C	1			N
2,323	C	1			N
2,324	C	1			N
2,325	C	1			N
2,326	C	2			N
2,327	C	2			N
2,328	C	2			N
2,329	C	2			N
2,330	C	2			N
2,331	C	2			N
2,332	C	2			N
2,333	C	2			N
2,334	C	2			N
2,335	C	2			N
2,336	C	2			N
2,337	C	2			N
2,338	C	2			N
2,339	C	2			N
2,340	C	2			N
2,341	C	2			N
2,342	C	2			N
2,343	C	2			N
2,344	C	2			N
2,345	C	2			N
2,346	C	2			Y
2,347	C	2			Y
2,348	C	2			Y
2,349	C	2			Y
2,350	C	2			N
2,351	C	2			N
2,352	C	2			N
2,353	C	2			N
2,354	C	2			N
2,355	C	2			N
2,356	C	2			N
2,357	C	2			Y
2,358	C	2			Y
2,359	C	2			Y
2,360	C	1			Y
2,361	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,362	C	2			Y
2,363	C	2			Y
2,364	C	2			Y
2,365	C	1			Y
2,366	C	2			N
2,367	C	2			N
2,368	C	2			Y
2,369	C	2			N
2,370	C	2			Y
2,371	C	2			Y
2,372	C	2			Y
2,373	C	2			Y
2,374	C	2			Y
2,375	C	2			N
2,376	C	3			N
2,377	C	2			N
2,378	C	2			N
2,379	C	2			N
2,380	C	2			N
2,381	C	2			N
2,382	C	2			N
2,383	C	2			N
2,384	C	2			N
2,385	C	2			N
2,386	C	2			N
2,387	C	2			N
2,388	C	2			N
2,389	C	2			N
2,390	C	2			N
2,391	C	2			N
2,392	C	2			N
2,393	C	2			N
2,394	C	2			N
2,395	C	2			N
2,396	C	2			N
2,397	C	2			N
2,398	C	2			Y
2,399	C	3			Y
2,400	C	2			Y
2,401	C	2			Y
2,402	C	2			Y
2,403	C	2			Y
2,404	C	2			N
2,405	C	2			Y
2,406	C	2			Y
2,407	C	2			N
2,408	C	2			N
2,409	C	2			N
2,410	C	2			N
2,411	C	2			N
2,412	C	2			N
2,413	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,414	C	2			N
2,415	C	2			N
2,416	C	2			N
2,417	C	2			N
2,418	C	1			N
2,419	C	2			N
2,420	C	2			N
2,421	C	2			N
2,422	C	2			Y
2,423	C	2			Y
2,424	C	2			Y
2,425	C	2			Y
2,426	C	2			Y
2,427	C	2			Y
2,428	C	2			Y
2,429	C	2			N
2,430	C	2			Y
2,431	C	2			Y
2,432	C	2			N
2,433	C	2			N
2,434	C	2			Y
2,435	C	2			Y
2,436	C	2			N
2,437	C	2			N
2,438	C	2			Y
2,439	C	2			N
2,440	C	2			N
2,441	C	3			N
2,442	C	3			N
2,443	C	3			N
2,444	C	2			N
2,445	C	2			N
2,446	C	2			N
2,447	C	2			N
2,448	C	2			N
2,449	C	2			Y
2,450	C	2			N
2,451	C	2			N
2,452	C	2			N
2,453	C	2			N
2,454	C	2			N
2,455	C	2			N
2,456	C	2			N
2,457	C	2			N
2,458	C	4			N
2,459	C	2			N
2,460	C	2			N
2,461	C	2			N
2,462	C	2			N
2,463	C	2			N
2,464	C	2			N
2,465	C	3			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,466	C	2			N
2,467	C	2			N
2,468	C	2			N
2,469	C	2			N
2,470	C	2			N
2,471	C	2			N
2,472	C	2			N
2,473	C	2			N
2,474	C	5			N
2,475	C	2			N
2,476	C	2			N
2,477	C	2			N
2,478	C	2			N
2,479	C	2			N
2,480	C	2			N
2,481	C	2			N
2,482	C	2			N
2,483	C	2			N
2,484	C	2			N
2,485	C	2			N
2,486	C	2			N
2,487	C	2			N
2,488	C	2			N
2,489	C	2			N
2,490	C	2			N
2,491	C	2			N
2,492	C	2			N
2,493	C	2			N
2,494	C	2			N
2,495	C	2			N
2,496	C	2			N
2,497	C	2			N
2,498	C	2			N
2,499	C	2			N
2,500	C	2			N
2,501	C	2			N
2,502	C	2			N
2,503	C	2			N
2,504	C	2			N
2,505	C	2			N
2,506	C	2			N
2,507	C	2			N
2,508	C	2			N
2,509	C	2			N
2,510	C	2			N
2,511	C	2			N
2,512	C	2			N
2,513	C	2			N
2,514	C	2			N
2,515	C	2			N
2,516	C	2			N
2,517	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,518	C	2			N
2,519	C	2			N
2,520	C	2			N
2,521	C	2			N
2,522	C	2			N
2,523	C	2			N
2,524	C	2			N
2,525	C	2			N
2,526	C	2			N
2,527	C	2			Y
2,528	C	2			N
2,529	C	2			N
2,530	C	2			N
2,531	C	2			N
2,532	C	2			N
2,533	C	2			N
2,534	C	2			N
2,535	C	2			N
2,536	C	2			N
2,537	C	2			N
2,538	C	2			N
2,539	C	2			N
2,540	C	2			N
2,541	C	2			N
2,542	C	2			N
2,543	C	2			N
2,544	C	2			N
2,545	C	2			N
2,546	C	2			N
2,547	C	2			N
2,548	C	2			N
2,549	C	2			N
2,550	C	2			N
2,551	C	2			N
2,552	C	2			N
2,553	C	2			N
2,554	C	2			N
2,555	C	2			N
2,556	C	2			N
2,557	C	2			N
2,558	C	2			N
2,559	C	2			N
2,560	C	2			N
2,561	C	2			N
2,562	C	2			N
2,563	C	2			N
2,564	C	2			Y
2,565	C	2			Y
2,566	C	2			Y
2,567	C	2			Y
2,568	C	2			Y
2,569	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,570	C	2			Y
2,571	C	2			Y
2,572	C	2			Y
2,573	C	2			N
2,574	C	1			N
2,575	C	2			N
2,576	C	2			N
2,577	C	2			N
2,578	C	1			N
2,579	C	1			N
2,580	C	2			N
2,581	C	2			N
2,582	C	2			Y
2,583	C	2			Y
2,584	C	2			Y
2,585	C	2			Y
2,586	C	2			Y
2,587	C	2			Y
2,588	C	2			Y
2,589	C	3			Y
2,590	C	2			Y
2,591	C	2			Y
2,592	C	2			Y
2,593	C	2			Y
2,594	C	2			Y
2,595	C	2			Y
2,596	C	2			Y
2,597	C	2			N
2,598	C	1			N
2,599	C	2			N
2,600	C	2			N
2,601	C	2			N
2,602	C	1			N
2,603	C	2			N
2,604	C	2			N
2,605	C	2			N
2,606	C	2			N
2,607	C	2			N
2,608	C	4			N
2,609	C	2			N
2,610	C	2			N
2,611	C	2			Y
2,612	C	2			Y
2,613	C	2			Y
2,614	C	2			Y
2,615	C	3			N
2,616	C	2			N
2,617	C	2			N
2,618	C	2			N
2,619	C	2			N
2,620	C	2			N
2,621	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,622	C	2			N
2,623	C	2			N
2,624	C	2			N
2,625	C	2			N
2,626	C	2			N
2,627	C	2			N
2,628	C	2			N
2,629	C	2			N
2,630	C	5			N
2,631	C	1			N
2,632	C	2			N
2,633	C	1			N
2,634	C	2			N
2,635	C	2			N
2,636	C	2			N
2,637	C	2			N
2,638	C	2			N
2,639	C	1			N
2,640	C	2			Y
2,641	C	2			Y
2,642	C	2			Y
2,643	C	2			N
2,644	C	2			N
2,645	C	2			N
2,646	C	2			N
2,647	C	2			N
2,648	C	2			N
2,649	C	2			N
2,650	C	2			N
2,651	C	4			N
2,652	C	2			N
2,653	C	2			N
2,654	C	2			N
2,655	C	2			N
2,656	C	2			N
2,657	C	2			N
2,658	C	2			N
2,659	C	5			N
2,660	C	4			N
2,661	C	2			N
2,662	C	2			N
2,663	C	2			N
2,664	C	2			N
2,665	C	2			N
2,666	C	2			N
2,667	C	3			N
2,668	C	2			N
2,669	C	2			N
2,670	C	2			N
2,671	C	2			N
2,672	C	2			N
2,673	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,674	C	2			N
2,675	C	2			N
2,676	C	2			N
2,677	C	2			N
2,678	C	1			N
2,679	C	2			N
2,680	C	2			N
2,681	C	2			N
2,682	C	2			N
2,683	C	1			N
2,684	C	4			N
2,685	C	2			N
2,686	C	2			N
2,687	C	2			N
2,688	C	3			N
2,689	C	2			N
2,690	C	1			N
2,691	C	1			N
2,692	C	2			N
2,693	C	2			N
2,694	C	2			N
2,695	C	2			N
2,696	C	2			N
2,697	C	2			N
2,698	C	3			N
2,699	C	2			N
2,700	C	2			N
2,701	C	4			N
2,702	C	5			N
2,703	C	4			N
2,704	C	3			N
2,705	C	2			N
2,706	C	2			N
2,707	C	2			Y
2,708	C	2			Y
2,709	C	2			Y
2,710	C	2			N
2,711	C	2			N
2,712	C	2			Y
2,713	C	2			Y
2,714	C	2			N
2,715	C	2			N
2,716	C	2			N
2,717	C	2			Y
2,718	C	2			Y
2,719	C	2			Y
2,720	C	2			Y
2,721	C	2			Y
2,722	C	2			Y
2,723	C	2			Y
2,724	C	2			Y
2,725	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,726	C	2			Y
2,727	C	2			Y
2,728	C	2			Y
2,729	C	2			Y
2,730	C	2			Y
2,731	C	2			Y
2,732	C	2			Y
2,733	C	2			N
2,734	C	2			N
2,735	C	2			N
2,736	C	2			Y
2,737	C	2			Y
2,738	C	2			Y
2,739	C	2			Y
2,740	C	2			Y
2,741	C	2			Y
2,742	C	2			Y
2,743	C	2			N
2,744	C	2			N
2,745	C	2			N
2,746	C	2			N
2,747	C	2			N
2,748	C	2			N
2,749	C	2			N
2,750	C	2			N
2,751	C	2			N
2,752	C	2			N
2,753	C	2			N
2,754	C	2			N
2,755	C	2			N
2,756	C	2			N
2,757	C	2			N
2,758	C	2			N
2,759	C	2			N
2,760	C	2			Y
2,761	C	3			N
2,762	C	2			N
2,763	C	2			N
2,764	C	2			N
2,765	C	2			N
2,766	C	2			N
2,767	C	2			N
2,768	C	2			N
2,769	C	2			N
2,770	C	2			N
2,771	C	2			N
2,772	C	2			N
2,773	C	2			N
2,774	C	2			N
2,775	C	2			N
2,776	C	2			N
2,777	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,778	C	2			N
2,779	C	2			N
2,780	C	2			N
2,781	C	2			N
2,782	C	2			N
2,783	C	2			N
2,784	C	2			N
2,785	C	2			N
2,786	C	2			N
2,787	C	2			N
2,788	C	2			N
2,789	C	2			N
2,790	C	2			N
2,791	C	2			N
2,792	C	2			N
2,793	C	2			N
2,794	C	2			N
2,795	C	2			N
2,796	C	2			N
2,797	C	2			Y
2,798	C	2			N
2,799	C	2			N
2,800	C	2			N
2,801	C	2			N
2,802	C	2			N
2,803	C	2			N
2,804	C	2			N
2,805	C	2			N
2,806	C	2			N
2,807	C	2			N
2,808	C	3			N
2,809	C	3			N
2,810	C	1			N
2,811	C	3			N
2,812	C	1			N
2,813	C	1			N
2,814	C	3			N
2,815	C	3			N
2,816	C	3			N
2,817	C	1			N
2,818	C	1			N
2,819	C	1			N
2,820	C	1			N
2,821	C	1			N
2,822	C	1			N
2,823	C	3			N
2,824	C	2			Y
2,825	C	2			Y
2,826	C	2			Y
2,827	C	2			Y
2,828	C	2			N
2,829	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,830	C	2			N
2,831	C	2			N
2,832	C	2			N
2,833	C	2			N
2,834	C	2			N
2,835	C	2			N
2,836	C	2			N
2,837	C	2			N
2,838	C	2			N
2,839	C	2			N
2,840	C	2			N
2,841	C	2			N
2,842	C	2			N
2,843	C	2			N
2,844	C	2			N
2,845	C	2			N
2,846	C	2			N
2,847	C	2			N
2,848	C	2			N
2,849	C	2			N
2,850	C	2			N
2,851	C	2			N
2,852	C	2			N
2,853	C	2			N
2,854	C	2			N
2,855	C	2			N
2,856	C	2			N
2,857	C	2			N
2,858	C	2			N
2,859	C	2			N
2,860	C	2			N
2,861	C	2			N
2,862	C	2			N
2,863	C	2			N
2,864	C	2			N
2,865	C	2			N
2,866	C	2			N
2,867	C	2			N
2,868	C	2			N
2,869	C	2			N
2,870	C	2			N
2,871	C	2			N
2,872	C	2			N
2,873	C	2			N
2,874	C	2			N
2,875	C	2			N
2,876	C	2			N
2,877	C	2			N
2,878	C	2			N
2,879	C	2			N
2,880	C	2			N
2,881	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,882	C	2			N
2,883	C	2			N
2,884	C	2			N
2,885	C	2			N
2,886	C	2			N
2,887	C	2			N
2,888	C	2			N
2,889	C	2			N
2,890	C	2			N
2,891	C	2			N
2,892	C	2			N
2,893	C	2			N
2,894	C	2			N
2,895	C	2			N
2,896	C	2			N
2,897	C	2			N
2,898	C	2			N
2,899	C	2			N
2,900	C	2			N
2,901	C	2			N
2,902	C	2			N
2,903	C	2			N
2,904	C	1			N
2,905	C	2			N
2,906	C	2			N
2,907	C	2			N
2,908	C	2			N
2,909	C	2			N
2,910	C	2			N
2,911	C	1			N
2,912	C	1			N
2,913	C	2			N
2,914	C	3			N
2,915	C	2			N
2,916	C	2			N
2,917	C	2			N
2,918	C	1			N
2,919	C	1			N
2,920	C	1			N
2,921	C	1			N
2,922	C	2			N
2,923	C	2			N
2,924	C	2			N
2,925	C	2			N
2,926	C	2			N
2,927	C	2			N
2,928	C	2			N
2,929	C	2			N
2,930	C	2			N
2,931	C	2			N
2,932	C	1			N
2,933	C	1			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,934	C	1			N
2,935	C	2			N
2,936	C	2			N
2,937	C	2			N
2,938	C	2			N
2,939	C	2			N
2,940	C	2			N
2,941	C	4			N
2,942	C	5			N
2,943	C	3			N
2,944	C	2			N
2,945	C	2			N
2,946	C	2			N
2,947	C	2			N
2,948	C	2			N
2,949	C	2			N
2,950	C	2			N
2,951	C	2			N
2,952	C	2			N
2,953	C	2			N
2,954	C	2			N
2,955	C	2			N
2,956	C	2			N
2,957	C	2			N
2,958	C	2			N
2,959	C	2			N
2,960	C	2			N
2,961	C	3			N
2,962	C	2			N
2,963	C	2			N
2,964	C	2			N
2,965	C	2			N
2,966	C	2			N
2,967	C	2			N
2,968	C	2			Y
2,969	C	2			N
2,970	C	2			N
2,971	C	2			N
2,972	C	2			N
2,973	C	2			N
2,974	C	2			N
2,975	C	2			N
2,976	C	2			N
2,977	C	2			N
2,978	C	2			N
2,979	C	2			N
2,980	C	2			N
2,981	C	2			N
2,982	C	2			N
2,983	C	2			N
2,984	C	2			N
2,985	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
2,986	C	2			Y
2,987	C	2			Y
2,988	C	2			Y
2,989	C	2			Y
2,990	C	2			Y
2,991	C	2			Y
2,992	C	2			Y
2,993	C	2			Y
2,994	C	2			Y
2,995	C	2			Y
2,996	C	2			N
2,997	C	2			Y
2,998	C	2			Y
2,999	C	2			N
3,000	C	3			N
3,001	C	4			N
3,002	C	2			N
3,003	C	2			N
3,004	C	2			N
3,005	C	2			N
3,006	C	2			N
3,007	C	2			N
3,008	C	2			N
3,009	C	2			N
3,010	C	2			N
3,011	C	2			N
3,012	C	2			N
3,013	C	2			N
3,014	C	2			N
3,015	C	4			N
3,016	C	4			N
3,017	C	4			N
3,018	C	4			N
3,019	C	4			N
3,020	C	4			N
3,021	C	4			N
3,022	C	4			N
3,023	C	4			N
3,024	C	4			N
3,025	C	5			N
3,026	C	2			N
3,027	C	2			N
3,028	C	2			N
3,029	C	2			N
3,030	C	2			N
3,031	C	2			N
3,032	C	2			N
3,033	C	2			N
3,034	C	2			N
3,035	C	2			N
3,036	C	2			N
3,037	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,038	C	2			N
3,039	C	2			N
3,040	C	2			N
3,041	C	2			N
3,042	C	2			N
3,043	C	2			N
3,044	C	2			N
3,045	C	2			N
3,046	C	2			N
3,047	C	2			N
3,048	C	2			N
3,049	C	2			N
3,050	C	2			N
3,051	C	2			N
3,052	C	2			N
3,053	C	3			N
3,054	C	1			N
3,055	C	1			N
3,056	C	1			N
3,057	C	1			N
3,058	C	2			N
3,059	C	2			N
3,060	C	2			N
3,061	C	2			N
3,062	C	2			N
3,063	C	2			N
3,064	C	2			N
3,065	C	2			N
3,066	C	2			N
3,067	C	2			N
3,068	C	2			N
3,069	C	2			N
3,070	C	2			N
3,071	C	2			N
3,072	C	2			N
3,073	C	2			N
3,074	C	2			N
3,075	C	2			N
3,076	C	2			N
3,077	C	2			N
3,078	C	2			N
3,079	C	2			N
3,080	C	2			N
3,081	C	2			N
3,082	C	2			N
3,083	C	2			N
3,084	C	2			N
3,085	C	2			N
3,086	C	2			N
3,087	C	2			N
3,088	C	2			N
3,089	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,090	C	2			N
3,091	C	3			N
3,092	C	2			N
3,093	C	2			N
3,094	C	2			N
3,095	C	2			N
3,096	C	2			N
3,097	C	2			N
3,098	C	2			N
3,099	C	2			N
3,100	C	3			N
3,101	C	2			N
3,102	C	2			N
3,103	C	2			N
3,104	C	2			N
3,105	C	2			N
3,106	C	2			N
3,107	C	3			N
3,108	C	3			N
3,109	C	2			Y
3,110	C	2			N
3,111	C	2			N
3,112	C	2			N
3,113	C	2			N
3,114	C	2			N
3,115	C	2			N
3,116	C	2			N
3,117	C	2			N
3,118	C	2			N
3,119	C	2			N
3,120	C	3			N
3,121	C	3			N
3,122	C	3			N
3,123	C	2			N
3,124	C	2			N
3,125	C	2			Y
3,126	C	2			Y
3,127	C	2			Y
3,130	V	2			N
3,131	V	2			N
3,132	V	2			N
3,133	V	2			N
3,134	V	3			N
3,135	V	2			N
3,136	V	1			N
3,137	V	2			N
3,139	V	2			N
3,141	V	2			N
3,143	C	2			N
3,144	V	3			N
3,145	V	2			N
3,146	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,150	C	2			N
3,151	V	2			N
3,155	V	2			N
3,156	V	2			Y
3,157	C	2			Y
3,158	C	2			Y
3,159	C	2			Y
3,160	C	1			Y
3,161	C	2			Y
3,162	C	2			Y
3,163	C	2			N
3,164	C	2			N
3,165	C	2			N
3,166	C	2			Y
3,167	C	2			Y
3,168	C	2			Y
3,169	C	3			Y
3,170	C	2			Y
3,171	C	2			Y
3,172	C	2			Y
3,173	C	3			Y
3,174	C	2			Y
3,175	C	1			Y
3,176	C	2			Y
3,177	C	2			Y
3,178	C	2			Y
3,179	C	2			Y
3,180	C	2			Y
3,181	C	2			Y
3,182	C	2			Y
3,183	V	2			Y
3,185	V	2			Y
3,186	V	2			Y
3,187	V	5			Y
3,188	V	2			Y
3,189	V	2			Y
3,190	V	2			Y
3,191	V	2			Y
3,192	V	3			Y
3,193	V	2			Y
3,194	V	2			Y
3,195	V	2			Y
3,196	V	3			Y
3,197	V	3			Y
3,198	V	3			Y
3,199	V	2			Y
3,200	V	2			Y
3,202	V	2			Y
3,204	V	2			Y
3,222	C	2			Y
3,223	C	2			Y
3,224	C	2			Y

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,225	C	2			Y
3,226	C	2			Y
3,227	C	2			Y
3,228	C	2			Y
3,229	C	2			Y
3,230	C	2			Y
3,231	C	2			Y
3,232	C	2			Y
3,233	C	2			Y
3,234	C	2			Y
3,235	C	2			Y
3,236	C	2			Y
3,237	C	2			Y
3,238	C	2			Y
3,239	C	2			Y
3,240	C	2			Y
3,241	C	2			Y
3,242	C	3			N
3,243	C	2			N
3,244	C	2			N
3,245	C	2			N
3,246	C	2			N
3,247	C	2			N
3,248	C	2			N
3,249	C	2			N
3,250	C	2			N
3,251	C	2			N
3,252	C	2			Y
3,253	C	2			Y
3,254	C	2			N
3,255	C	2			Y
3,256	C	2			Y
3,257	C	2			Y
3,258	C	2			Y
3,259	C	2			Y
3,260	C	5			Y
3,261	C	3			Y
3,262	C	5			N
3,263	C	4			N
3,264	C	2			N
3,265	C	2			N
3,266	C	2			N
3,267	C	2			Y
3,268	C	2			Y
3,269	C	2			Y
3,270	C	2			Y
3,271	V	2			N
3,272	V	2			N
3,273	C	3			Y
3,274	V	2			Y
3,275	V	2			Y
3,276	V	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,277	V	2			N
3,279	V	2			N
3,280	C	2			Y
3,281	C	2			Y
3,282	C	3			N
3,283	C	4			N
3,284	C	2			N
3,285	C	2			N
3,286	C	2			N
3,287	C	2			N
3,288	V	2			N
3,289	V	2			N
3,290	C	2			Y
3,291	C	3			Y
3,292	C	2			N
3,293	C	2			N
3,294	C	2			N
3,295	C	2			N
3,296	C	2			N
3,301	V	2			N
3,303	V	3			N
3,304	V	2			N
3,315	C	2			N
3,316	C	2			N
3,317	C	2			N
3,318	C	2			N
3,319	C	2			N
3,320	C	2			N
3,321	C	2			Y
3,322	C	2			Y
3,323	C	2			Y
3,324	C	1			N
3,325	C	2			N
3,326	C	2			N
3,327	C	2			N
3,328	C	2			N
3,329	C	2			N
3,330	C	3			N
3,331	C	3			N
3,332	C	3			N
3,333	C	2			N
3,334	C	2			N
3,335	C	2			N
3,336	C	3			N
3,337	C	1			Y
3,338	C	2			N
3,339	C	2			Y
3,340	C	2			N
3,341	C	2			N
3,342	C	2			N
3,343	C	2			N
3,344	C	2			N

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,345	C	2			N
3,346	C	2			N
3,347	C	2			N
3,348	C	2			N
3,349	V	2			N
3,350	V	5			N
3,351	C	1			N
3,352	C	2			N
3,353	C	2			Y
3,354	C	2			Y
3,355	C	2			Y
3,356	C	2			N
3,357	C	2			N
3,358	C	2			N
3,359	C	2			N
3,360	C	2			Y
3,361	V	1	HERITAGE	166	N
3,362	V	1	HERITAGE	122	N
3,363	V	1	HERITAGE	136	N
3,364	V	1	HERITAGE	125	N
3,365	V	1	HERITAGE	122	N
3,366	V	2			N
3,367	V	2			Y
3,368	V	1			N
3,369	V	2			N
3,370	C	2			N
3,371	C	2			N
3,372	C	2			N
3,373	C	2			N
3,374	C	2			N
3,375	C	2			N
3,376	C	2			N
3,377	C	2			N
3,378	C	2			N
3,379	C	2			N
3,380	C	4			N
3,381	C	4			N
3,382	C	4			N

Total trees surveyed within Project Boundary - 3,303. Trees surveyed outside of project boundary were omitted from this report.

NEWHALL RANCH OFFSITE OAK TREES

Summer, 1995

1. TYPE
   - C - Coastal Live Oak, Quercus agrifolia
   - V - Valley Oak, Quercas lobata

2. HEALTH
   - 1 - Excellant large trees
   - 2 - Very good to good trees
   - 3 - Moderately good or crowded trees
   - 4 - Trees with strong dieback
   - 5 - Dead standing trees

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (Y/N)
3,383	C	2			Y
3,384	C	2			Y
3,385	C	2			Y
3,386	C	2			Y
3,387	C	1	HERITAGE	114	Y
3,388	C	2			Y

Total impacted trees outside of project boundary - 6

INDEPENDENT ENVIRONMENTAL CONSULTANTS

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An Enumeration of oaks from the "High Country" and a reevaluation of impacts on oaks on the Newhall Ranch Site.

A study has been undertaken to determine the number of oaks in the "High Country" portion of the Newhall Ranch site of the Newhall Ranch Company. In the initial analysis of oak tree resources of the Newhall Ranch an estimate of the number of trees in the High Country was made based on the acreage indicated as having oaks on the vegetation map and the average numbers of oaks per acre recorded from groves in the northern portion of the site where oaks were individually mapped and evaluated. This resulted in a tentative estimate of 8,500 oak trees for the High Country. As a means of verifying this number I was asked to make a separate evaluation of oak tree resources in the "High Country" portion of Newhall Ranch. The results of this study are reported below.

The initial grading plans for the development of the northern portion of the Newhall Ranch site were completed prior to the evaluation of the oak tree resources on the site. This resulted in a moderate impact on oak tree resources as noted in the report dated September 6, 1995. Since that time the initial grading plan has been revised to reduce impact on oak-tree resources on the site. A series of new tables are presented summarizing the total impact on oaks on the Newhall Ranch site.

Oak tree resources in the "High Country": This approximately 3200-acre portion of the Newhall Ranch lies along the north slope of the Santa Susana Mountains south of the portion of the site proposed for development. The site is very rugged, ranging from 1200 to 3150 feet in elevation, with the highest elevations occurring along the ridgeline of the Santa Susana range. The site drains to the north though a series of steep canyons into Salt Creek and the East fork of Salt Creek and from there westward into the Santa Clara River. The extreme northeastern portion of the site drains into Pico Canyon. The upper, southern portion of the site has a more gradual topography and much of this area consists of open grasslands with an overstory of valley oak (*Quercus lobata*). The Coastal live oaks (*Quercus agrifolia*) occur mostly along the drainages and in the steep canyons and in areas of north-facing slopes. Other slopes contain dense stands of mixed chaparral vegetation with more exposed slopes having coastal sage scrub. Some direct south-facing slopes have a very open coastal sage scrub-disturbed grassland vegetation. While the upper slopes have been burned over in the past and are presently grazed by cattle, the middle portion of the site is too rugged for cattle access and remains in a very natural condition.

Roadway access to the site is very limited. A graded roadway extends along Salt Canyon that forms the northern boundary of this study area. A similar graded ridge trail continues all along the ridge of Santa Susana Mountains and crosses the southern portion of the site. A trail extends from the mouth of Salt Canyon up to the ridge trail through the property immediately west of the site. The entire middle portion of the site is without road access but much of the area is accessible by foot from the upper slopes and with limited access from the lower slopes. Views of portions of the site are available from several ridges accessible from the upper slopes and a series of fly-bys in a small plane allowed close inspection of the tree resources throughout the site. This was particularly valuable in the lower canyons not visible from the upper slopes. The previous oak survey included all oaks along the roadway through Salt Canyon. The present survey extends from this area to the southern boundary of the Newhall Ranch site.

Ideally such a survey would consist of a direct count of all oak trees within the boundary of the site. But the ruggedness and vastness of the site makes such a survey impractical. In many areas the chaparral is so dense, and in other areas the terrain so steep, that it is not possible to get to the groves of trees. To effect a count of the oak resources, a 1:400 scale color photograph of the site from Salt Canyon to the ridge of the Santa Susana Mountains was provided that roughly matches the 1:400 scale topographic map of the site. From this map it was possible to locate the trees and to effect a count of the trees on the site. But what was immediately apparent from the aerial photograph, was that the total coverage of oaks in the High Country was greater than indicated in the vegetation map of the site and that the previous estimate of oak tree resources on this portion of the site may be too small.

As noted above, the Valley oaks were largely confined to the northern portion of the site where they are dispersed over a grassland understory. This made the trees readily visible on the aerial photographs. Many of the trees are free standing and their individual crowns represent single trees with single trunks. However field observations show that other crowns may actually consist of 2 to 5 separate trees, with each tree contributing to a single large crown. Up to 11 trees were observed in a single crown in some cases. From the aerial photography it is not always possible to determine the number of trees that comprise a single crown. In areas with dense trees the crowns of several trees will be interconnected in a linear series and this will be readily apparent from the aerial photography. To determine the frequency of double and multiple-trunked trees in the Valley oak sites I counted the number of trees in several readily identifiable groves or clusters of trees. These were groves that were isolated by open grassland or demarked by roadways and/or ridgelines that rendered the groves identifiable on the topographic map. The groves contained from 11 to 273 trees by count. The location of these groves were indicted on the topographic map and the trees in these groves were then counted on the aerial photography. This allowed me to determine a correction factor to account for multiple-trunk trees. A sampling of the counts is presented here with the actual field-counted number of individual trees indicated followed by the number counted from aerial photography in parenthesis: 49 (40), 23 (18), 71 (54), 35 (32), 272 (221), 61 (44). This showed that the counts obtained from the aerial photograph represented an average 20 percent undercount of trees actually present on these parcels.

The region with Valley oaks also contained scattered California walnut, (*Juglans californica*), which has a somewhat similar signature on the aerial photographs. However, the location of walnuts on the open slopes was noted on the field maps. Also the photographic signature of the walnuts can generally be distinguished from the oaks as walnuts tend to form more continuous and uniform groves, and, as the trees are shorter and the leaves more diffuse, they have a less discernible shadow along their northern boundary.

The Coastal live oaks largely occur along the northerly slopes and drainages, beginning in the region of the valley oaks, becoming dominant on the steeper north-facing slopes and canyons. They occur all along the steeper canyons in the central portion of the site and in many gradual drainages and slopes within chaparral. In many areas Coastal live oaks form dense and extensive stands in which individual trees are not discernible from above. From the ground these dense stands contain trees of mixed age with the larger trees occurring with a larger number of smaller, younger trees. To determine the density (i.e., trees per acre) of these groves, data from similar oak stands from other portions of the Newhall Ranch site were used. In the previous survey of the northern two thirds of the site the number and location of individual trees were determined. These data were arranged by FORMA DESIGN to give the number of trees and the acreage for each grove. From these data, it was determined that the densest Coastal live oak groves contained 43.3 to 30 trees per acre. From these data, and from direct observation from measured 1-acre sites (i.e. sites 207 ft square) it was determined that for areas of solid stands of oaks, we could consider them to contain approximately 36 trees per acre--this is actually a conservative under count, as in my measured 1-acre stands, I found 71, 53, and 32 trees per acre.

In many other stands where Coastal live oaks are more dispersed, individual oaks are discernible from the aerial photographs. In peripheral areas, however, it is often difficult to distinguish Coastal live oaks from associated species such as Toyon (*Heteromeles arbutifolia*), California walnut, Redberry (*Rhamnus ilicifolia*) and other such large shrubs. In many instances this is also difficult in the field and often close inspection is needed to discern the species. Also the deepest drainages contain local stands of willows (*Salix* spp.) and cottonwoods (*Populus fremontii*), which are often difficult to distinguish from the oaks from the aerial photography except that dense stands of willows have a more uniform signature. Several local stands of willows and cottonwoods were located in the field and marked on the topographic map and from this, in conjunction with consideration of the topography, it has been possible to estimate the location of non-oak trees in these drainages. The fly-by information indicated that except for some areas in the upper drainages, willows and cottonwoods were very much confined to the narrow and deeper drainages and were present as scattered trees in a linear sequence; they did not form extensive stands in the lower drainages.

As can be see from the above discussion, there are many pitfalls in inventorying oak trees from aerial photographs. However, being aware of these problems, allows one to make a more accurate assessment of oak tree resources. To this end, the count provided here is conservative.

To make the count, the aerial photograph was overlain with acetate and the site boundaries determined from the topographic map. Areas of oaks were delimited on the acetate and the trees were counted and marked (dotted) using a pen that did not permanently mark the acetate. This insured against accidental recounts of trees. Only trees that could be reasonably determined to be oaks were counted. In dense areas of Coastal live oaks, 1-acre areas were drawn out (they equaled slightly over one-half inch squares) and these were counted as having 36 trees per unit. Oak-like signatures on exposed south-facing slopes were not considered to be oaks, they were more likely other chaparral species. Some complex areas were recounted several times. In areas of moderately dense Valley oaks, a conversion factor of 15 percent was used to determine the ultimate number of Valley oaks. A similar 15 percent conversion factor is used for Coastal live oaks as in all populations of this species, the larger trees harbor smaller trees around the periphery of their canopies. Many of these hidden plants have trunks over 8 inches in diameter at breast height and often they have canopies about 15 ft in diameter and are not visible as individual trees on the aerial photographs as they blend into adjacent trees.

A total of 90 areas were demarked on the acetate overlying the aerial photograph. Some of these areas encircled isolated groves of trees, other more extensive groves of trees were broken up into 2 or more areas. The total trees were counted in each area and. the number was marked within the area and that number was used to identify the area. The areas contained from 0 to 380 oaks, with an average of 129 oaks per area. Most of these areas contained only one species of oak, but in those areas containing both species, the percentage of Coastal live oak vs. Valley oak was estimated and recorded for each area. This was done to allow an separate estimation of Coastal live oaks vs. Valley oaks.

Results: The sum of the 90 separate areas totaled 11,641 oaks, of which approximately 8,461 were Coastal live oaks and 3,180 were Valley oaks. If a conservative 15 percent undercount is considered for each species, this added to compensate for the many legal-size trees (with trunks over 8 inches in diameter breast height) that are hidden within the canopies of larger trees, this gives a total of 13,387 trees, of which 9,730 are Coastal live oaks and 3,657 Valley oaks. To understand the validity of the 15 percent addition to the total, one may inspect any grove of oaks in Southern California and note the canopies often contain more than one tree. These additional trees are not visible from aerial photography. It is strongly suspected that these totals, even considering the 15 percent adjustment, represent an undercount for oak resources on the site.

As these numbers are estimates, it is suggested that the numbers be rounded off to state that the total number of oak trees on the High Country Area are at least 13,000 trees total, of which 9,500 are Coastal live oaks and 3,500 are Valley oaks. This brings the estimated number of oak trees on the Newhall Ranch site up to 16,314.

No attempt was made to determine the numbers of heritage oaks on the High Country area. Heritage trees are considered those with trunk circumferences 110 inches or larger at breast height (this equals trunks 3 ft in diameter). In the northern portion of the Newhall Ranch site, where the oak trees were individually counted, evaluated and mapped and the trunks of heritage trees measured, 6.1 percent of the Coastal live oaks were heritage trees, and 12.9 percent of the Valley oaks were heritage trees. If these percentages were used in the high country region, one would expect to find about 593 heritage Coastal live oak trees and about 472 heritage Valley oaks. Heritage-sized Valley oaks were very common in the upper Valley oak woodlands leading me to consider that this number may be somewhat accurate. Many of these trees, however, were in decline perhaps caused by the recent years of drought. I believe that the number of heritage oaks for Coastal live oak may be much too high as the reproductive potential for the species is greater, i.e. there are more young oaks, and many of the oaks seen in the mid slopes were of moderate size; I did not see many heritage-sized Coastal live oaks in the High Country.

A reevaluation of oak tree resources and impacts: The report of September 6, 1995 presented data on the total oak trees on the entire site, and the oak trees on the northern two thirds of the site--the portion of the site proposed for development. The report listed: (1) the total numbers and grades of Coastal live oak and Valley oak trees on the site and the numbers impacted by the proposed grading; (2) the numbers of heritage oaks on the site and the numbers impacted by grading; (3) the off-site trees impacted by proposed roadways to the site; and (4) the numbers of trees impacted in SEA 20 (the Santa Susana Mountains) and SEA 23 (Santa Clara River).

Since that time the grading plan has been revised to reduce impacts on oaks, data imput was double checked and 11 more trees were plotted in this northern area. In addition, there has been a reevaluation of the numbers of trees in the "High Country" as discussed above. The new numbers for total Coastal live oak and Valley oak on the site (including heritage trees) for the site are presented below.

Table 1. Total Oak Trees on the Northern Portion of the Newhall Ranch Site

	Grade	No. trees surveyed	Trees impacted	Trees not impacted
Coastal live Oak	1 = A	243	95	148
	2 = B	2,391	418	1,973
	3 = C	153	28	125
Subtotal of A-C trees		(2787)	(541)	(2246)
	4 = D	55	1	54
	5 = F	46	11	35
	Subtotal:	2,888	553	2,335
Valley Oak	1 = A	44	14	30
	2 = B	321	58	263
	3 = C	43	15	28
Subtotal of A-C trees		(408)	(87)	(321)
	4 = D	11	5	6
	5 = F	7	3	4
	Subtotal:	426	95	331
	Total:	3,314	648	2,666

The previous total number of oak trees on the portion of the site considered for development site was a total of 3,303 oak trees of both species, the new number 3,314, an increase of 0.3 percent. The total trees, of both species, initially impacted by grading was 1,020. This represented 30.9 percent of total tree count. The revised grading plan has reduced the number of trees impacted to 648 trees out of a total of 3,314 trees--a total of 19.6 percent. This represents a 36.5 percent reduction in trees impacted. This includes a reduction of impact to Coastal live oaks from 926 to 553 (40.3 percent) while the numbers of Valley oaks impacted increased from 94 to 95, an increase of 1 percent.

Total Trees on the Entire Newhall Ranch Site: In the previous report, a total of 3,303 trees were evaluated in the northern two thirds of the site and the 8,500 were estimated to be present in the "High Country" portion of the site. The above study has revised this estimate for the "High Country" to 13,000, including 9,500 Coastal live oaks and 3,500 Valley oaks. The total revised numbers of trees on the entire Newhall Ranch site are indicated below. The numbers of trees impacted by the proposed development are also indicated along with the percentage of trees impacted.

Table 2. Total Oak Trees on the Entire Newhall Ranch Site.

	Total oaks	Coastal live oaks	Valley oaks
"High Country"	13,000	9,500	3,500
Northern site	3,314	2,888	426
Total oaks	16,314	12,388	3,926
Number impacted	648	553	95
Percent impacted	4.0 %	4.5%	2.4%

Heritage Oaks: The portion of the site initially surveyed contained a total of 231 heritage oaks (trees with trunk circumferences 110 inches or higher at breast height), of which 177 were Coastal live oaks, and 54 Valley oaks. With the revised grading plan the numbers are slightly altered as indicated below in Table 3. The percentage of Heritage oak trees impacted by the proposed development is also indicated. The percentages of impacted trees are relatively high as the largest trees are often well isolated from other trees, where they have less competition. In addition these data do not include the estimated 600 Heritage oaks from the "High Country" that would not be impacted by development.

Table 3. Changes in Numbers of Heritage Oaks on the Proposed Development Site and the numbers Impacted

	Grade	Previous Numbers	Revised Numbers	Trees Impacted	Percent Impacted
Coastal live Oak	1 = A	110	114	58	
	2 = B	55	53	27	
	3 = C	7	6	3	
	4 = D	5	5	1	
	5 = F	0	0	0	
	Subtotal:	177	178	89	= 50.0 %
Valley Oak	1 = A	35	34	11	
	2 = B	13	14	6	
	3 = C	3	3	1	
	4 = D	2	2	2	
	5 = F	1	1	0	
	Subtotal:	54	54	20	
	Total	231	232	109	= 46.9 %

Off Site Impacts: Overall development of the site will also include extensions of Valencia Boulevard west through the proposed Newhall Ranch development to this site and Magic Mountain Parkway west from the entrance to Six Flags Magic Mountain to this site. There are no modifications of the impacts from the initial survey, so the data are not repeated here.

Impacts on Significant Ecological Areas: The Newhall Ranch site contains portions of two Los Angeles County Significant Ecological Areas, SEA 20, the Santa Susana Mountains, located in the "High Country" in the southern third of the site, and SEA 23, the Santa Clara River. Since the initial study an additional survey was conducted of trees within the floodplain of the Santa Clara River. A total of 7 additional trees were located, some of these outside the survey area. The trees along the margins of the floodplain were indicated in the initial survey and a few other trees were located during the second survey. It is considered that the evaluation of oaks trees along the margins of the Santa Clara River is complete. There may be a few additional Coastal live oak trees hiding among the willows within the floodplain. Only a small portion of SEA 20 is effected by the proposed development.

The total numbers of Coastal live oak and Valley oaks surveyed in the portions of these two SEA's are given below along with the numbers that will be impacted.

Table 4. Total Trees and Impacted Trees in SEA 20 and SEA 23.

		SEA 20		SEA 23	
	Grade	Total	Impacted	Total	Impacted
Coastal live Oak	1 = A	7	1	22	5
	2 = B	59	10	112	42
	3 = C	14	-	12	3
	4 = D	6	-	-	-
	Subtotal:	86	11 = 12.8%	146	50 = 34.2%
Valley Oak	1 = A	7	-	1	1
	2 = B	117	2	5	2
	3 = C	1	-	4	1
	Subtotal:	125	2 = 1.6%	10	4 = 40.0%
	Total:	211	13 = 6.2%	156	54 = 34.6%

A revised numerical listing of the oak trees on the portion of the site proposed for development is amended to this report. This listing reflects revisions to the proposed grading plan made after the first oak tree report was submitted. The listing presents the tree number assigned as the trees were entered into a computerized Geographical Information System by FORMA DESIGN of Costa Mesa, California; the type of oak tree (C = Coastal live oak, V = Valley oak); and the overall health of the tree (as indicated on the first page of the listing). Heritage trees are also indicated and for these trees the trunk circumference 4.5 ft above the base is indicated in inches (heritage trees are those with trunks exceeding 3 feet in diameter = 113 inches in circumference, but for the purpose of the survey, trees exceeding 110 inches in circumference were considered heritage trees as they may grow to heritage size by the time a particular site is developed). Trees impacted or potentially impacted by grading are indicated by GR, those outside the revised grading envelope are indicated OA (outside the area of impact). All plants falling within proposed graded areas, as indicted in the Conceptual Grading Plan, are considered impacted. Some of these trees ultimately may be saved by minor adjustments to grades or design.

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NEWHALL RANCH OAK TREE SURVEY

Summer, 1995

1. TYPE
   - C - Coastal Live Oak, Quercus agrifolia
   - V - Valley Oak, Quercas lobata

2. HEALTH
   - 1 - Excellant large trees
   - 2 - Very good to good trees
   - 3 - Moderately good or crowded trees
   - 4 - Trees with strong dieback
   - 5 - Dead standing trees

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1	C	2			OA
2	C	2			OA
3	V	1	HERITAGE	138	OA
4	V	2	HERITAGE	129	OA
5	V	2	HERITAGE	131	OA
6	C	1	HERITAGE	182	GR
7	C	2	HERITAGE	113	GR
8	C	1	HERITAGE	197	OA
9	V	1	HERITAGE	110	GR
10	V	1	HERITAGE	119	OA
11	V	1	HERITAGE	121	OA
12	V	1	HERITAGE	116	OA
13	C	1	HERITAGE	116	GR
14	V	1	HERITAGE	180	OA
15	V	1	HERITAGE	120	OA
16	V	2	HERITAGE	110	OA
17	V	1	HERITAGE	127	GR
18	V	1	HERITAGE	183	GR
19	V	3	HERITAGE	195	OA
20	V	4	HERITAGE	146	GR
21	V	2	HERITAGE	191	GR
22	V	2	HERITAGE	155	GR
23	V	1	HERITAGE	115	OA
24	V	1	HERITAGE	142	GR
25	C	4	HERITAGE	128	OA
26	V	1	HERITAGE	118	OA
27	V	1	HERITAGE	120	OA
28	C	1	HERITAGE	130	GR
29	C	2	HERITAGE	132	OA
30	C	2	HERITAGE	110	OA
31	C	1	HERITAGE	137	GR
32	C	1	HERITAGE	129	GR
33	C	1	HERITAGE	162	GR
34	C	1	HERITAGE	138	GR
35	C	1	HERITAGE	136	GR
36	C	1	HERITAGE	213	GR
37	C	2	HERITAGE	169	GR
38	C	2	HERITAGE	140	OA
39	C	1	HERITAGE	129	GR
40	C	1	HERITAGE	110	GR
41	C	1	HERITAGE	128	GR
42	C	1	HERITAGE	110	OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
43	C	1	HERITAGE	113	OA
44	C	2	HERITAGE	120	GR
45	C	1	HERITAGE	150	OA
46	C	2	HERITAGE	135	GR
47	C	2	HERITAGE	117	OA
48	C	1	HERITAGE	134	OA
49	C	1	HERITAGE	210	OA
50	C	2	HERITAGE	123	GR
51	C	2	HERITAGE	250	OA
52	C	2	HERITAGE	162	GR
53	C	2	HERITAGE	116	GR
54	C	2	HERITAGE	127	GR
55	C	2	HERITAGE	137	GR
56	C	1	HERITAGE	120	OA
57	C	1	HERITAGE	112	OA
58	C	1	HERITAGE	131	OA
59	C	1	HERITAGE	116	GR
60	C	1	HERITAGE	148	GR
61	C	1	HERITAGE	120	GR
62	C	1	HERITAGE	148	GR
63	C	1	HERITAGE	151	GR
64	C	1	HERITAGE	130	GR
65	C	1	HERITAGE	215	OA
66	C	1	HERITAGE	154	OA
67	C	1	HERITAGE	125	OA
68	C	1	HERITAGE	185	OA
69	C	1	HERITAGE	116	GR
70	C	1	HERITAGE	150	GR
71	C	1	HERITAGE	150	GR
72	C	1	HERITAGE	140	GR
73	C	1	HERITAGE	143	GR
74	C	1	HERITAGE	127	GR
75	C	1	HERITAGE	132	GR
76	C	1	HERITAGE	240	GR
77	C	1	HERITAGE	145	GR
78	C	1	HERITAGE	130	OA
79	C	1	HERITAGE	130	OA
80	C	1	HERITAGE	119	OA
81	C	1	HERITAGE	143	OA
82	V	5	HERITAGE	155	OA
83	C	1	HERITAGE	113	OA
84	C	1	HERITAGE	116	OA
85	C	1	HERITAGE	117	OA
86	C	1	HERITAGE	150	OA
87	C	1	HERITAGE	140	OA
88	C	1	HERITAGE	130	OA
89	C	1	HERITAGE	160	OA
90	C	3	HERITAGE	189	GR
91	C	3	HERITAGE	135	OA
92	C	1	HERITAGE	135	GR
93	C	1	HERITAGE	128	GR
94	C	2	HERITAGE	120	GR
95	C	2	HERITAGE	130	OA
96	C	2	HERITAGE	144	GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
97	C	1	HERITAGE	116	GR
98	C	1	HERITAGE	110	OA
99	C	3	HERITAGE	125	GR
100	C	3	HERITAGE	220	GR
101	C	1	HERITAGE	185	GR
102	C	1	HERITAGE	142	GR
103	C	1	HERITAGE	122	GR
104	C	2	HERITAGE	144	GR
105	C	2	HERITAGE	128	GR
106	C	2	HERITAGE	124	GR
107	C	2	HERITAGE	144	GR
108	C	2	HERITAGE	123	GR
109	C	2	HERITAGE	145	GR
110	C	1	HERITAGE	115	GR
111	C	2	HERITAGE	121	OA
112	C	2	HERITAGE	130	GR
113	V	1	HERITAGE	142	OA
114	V	1	HERITAGE	120	OA
119	C	1	HERITAGE	162	OA
120	C	1	HERITAGE	133	OA
121	V	2			GR
122	V	2			OA
123	V	2			OA
124	V	2			OA
125	V	2			OA
126	V	2			OA
127	C	2			OA
128	C	2			GR
129	V	2			GR
130	C	2			OA
131	C	2			GR
132	C	2			GR
133	C	2			GR
134	C	2			GR
135	C	2			GR
136	C	2			GR
137	C	2			GR
138	C	2			GR
139	C	2			OA
140	C	2			OA
141	C	2			OA
142	C	2			OA
143	V	2			OA
144	V	2			OA
145	C	2			OA
146	C	2			OA
147	C	2			OA
148	C	1			OA
149	C	2			OA
150	C	2			OA
151	C	1			OA
152	C	2			OA
153	C	2			OA
155	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
156	C	4			OA
157	V	2			OA
158	C	2			OA
159	V	1			OA
160	C	4			OA
161	V	2			OA
162	V	2			OA
163	V	2			OA
164	V	2			OA
165	V	2			OA
166	V	2			OA
167	V	2			OA
168	V	2			OA
169	C	2			OA
170	C	2			OA
171	C	2			OA
172	C	2			OA
173	C	2			OA
174	C	2			OA
175	C	2			OA
176	C	2			OA
177	C	2			OA
178	C	2			OA
179	C	2			OA
180	C	2			OA
181	C	2			OA
182	C	2			OA
183	C	2			OA
184	C	2			OA
185	C	2			OA
186	C	2			OA
187	C	2			OA
188	C	2			OA
189	C	2			OA
190	C	2			OA
191	C	2			OA
192	C	2			OA
193	C	2			OA
194	C	2			OA
195	C	2			OA
196	C	2			OA
197	C	1			OA
198	C	5			OA
199	C	4			OA
200	C	3			OA
201	C	3			OA
202	C	2			GR
203	C	2			GR
204	C	2			GR
205	C	2			GR
206	C	2			OA
207	C	2			GR
208	C	2			GR
209	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
210	C	2			GR
211	C	2			OA
212	C	2			OA
213	C	2			OA
214	C	2			OA
215	C	2			OA
216	C	2			OA
217	C	2			OA
218	C	2			OA
219	C	2			OA
220	C	2			OA
221	C	2			OA
222	C	2			OA
223	C	2			OA
224	C	2			OA
225	C	2			OA
226	C	2			OA
227	C	2			OA
228	C	2			OA
229	C	2			OA
230	C	2			OA
231	C	2			OA
232	C	2			OA
233	C	2			GR
234	C	2			OA
235	C	2			OA
236	C	2			OA
237	C	2			OA
238	C	2			OA
239	C	2			OA
240	C	2			OA
241	C	2			OA
242	C	2			OA
243	C	2			OA
244	C	2			OA
245	C	2			OA
246	C	2			OA
247	C	2			OA
248	C	2			OA
249	C	2			GR
250	C	2			GR
251	C	2			OA
252	C	2			OA
253	C	2			OA
254	C	2			OA
255	C	2			OA
256	C	2			OA
257	C	2			OA
258	C	2			OA
259	C	2			OA
260	C	2			OA
261	C	2			OA
262	C	2			OA
263	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
264	C	2			OA
265	C	2			OA
266	C	2			OA
267	C	2			OA
268	C	2			GR
269	C	2			GR
270	C	2			OA
271	C	2			OA
272	C	2			OA
273	C	2			OA
274	C	2			OA
275	C	2			OA
276	C	2			OA
277	C	2			OA
278	C	2			OA
279	C	2			OA
280	C	2			OA
281	C	2			OA
282	C	2			OA
283	C	2			OA
284	C	2			OA
285	C	2			OA
286	C	2			OA
287	C	2			OA
288	C	2			OA
289	C	2			OA
290	C	2			OA
291	C	2			OA
292	C	2			OA
293	C	2			GR
294	C	2			GR
295	C	2			OA
296	C	2			OA
297	V	2			OA
298	V	2			OA
299	V	3			OA
300	V	2			OA
301	V	2			OA
302	V	2			OA
303	C	2			OA
304	C	1			OA
305	C	2			GR
306	V	2			OA
307	V	2			OA
308	V	2			OA
309	V	2			OA
310	V	2			OA
311	V	2			OA
312	V	2			OA
313	V	2			OA
314	V	2			OA
315	V	2			OA
316	V	2			OA
317	V	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
318	V	2			OA
319	V	2			OA
320	V	2			OA
321	V	2			OA
322	V	2			OA
323	V	2			OA
324	V	2			OA
325	V	2			OA
326	V	2			OA
327	V	2			OA
328	V	2			OA
329	V	2			OA
330	V	2			OA
331	V	2			OA
332	C	2			OA
333	C	2			OA
334	V	2			GR
335	V	2			OA
336	V	2			OA
337	V	2			OA
338	V	2			OA
339	V	2			OA
340	V	2			OA
341	V	2			OA
342	V	2			OA
343	V	2			OA
344	V	2			OA
345	V	2			OA
346	V	2			OA
347	V	2			OA
348	V	2			OA
349	V	2			OA
350	V	2			OA
351	V	2			OA
352	V	2			OA
353	V	2			OA
354	V	2			OA
355	V	2			OA
356	V	2			OA
357	V	2			OA
358	V	2			OA
359	V	2			OA
360	C	2			OA
361	C	2			OA
362	C	2			OA
363	V	2			OA
364	V	2			OA
365	V	2			OA
366	V	2			OA
367	V	2			OA
368	V	2			OA
369	V	2			OA
370	V	2			OA
371	V	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
372	V	2			OA
373	V	2			OA
374	V	2			OA
375	V	2			OA
376	V	2			OA
377	V	2			OA
378	V	2			OA
379	V	2			OA
380	V	2			OA
381	V	2			OA
382	V	2			OA
383	V	2			OA
384	V	2			OA
385	V	2			OA
386	V	2			OA
387	V	2			OA
388	V	2			OA
389	V	2			OA
390	V	2			OA
391	V	2			OA
392	V	2			OA
393	V	2			OA
394	V	2			OA
395	V	2			OA
396	V	2			OA
397	V	2			OA
398	V	2			OA
399	V	2			OA
400	V	2			OA
401	V	2			OA
402	V	2			OA
403	V	2			OA
404	V	2			OA
405	V	2			OA
406	V	2			OA
407	C	3			OA
408	C	3			OA
409	C	3			OA
410	C	2			OA
411	C	3			OA
412	C	3			OA
413	C	3			OA
414	C	3			OA
415	C	2			OA
416	C	2			OA
417	C	4			OA
418	C	4			OA
419	C	3			OA
420	C	3			OA
421	C	3			OA
422	C	3			OA
423	C	3			OA
424	C	4			OA
425	C	3			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
426	C	3			OA
427	C	2			OA
428	C	2			OA
429	C	2			OA
430	C	2			OA
431	C	2			OA
432	C	2			OA
433	C	2			OA
434	C	2			OA
435	C	2			OA
436	C	2			OA
437	C	2			OA
438	C	2			OA
439	C	2			OA
440	C	2			OA
441	C	2			OA
442	C	2			OA
443	C	2			OA
444	C	2			OA
445	C	2			OA
446	C	3			OA
447	C	1			OA
448	C	2			OA
449	C	2			OA
450	C	2			OA
451	C	2			OA
452	C	5			OA
453	C	2			OA
454	C	2			OA
455	C	2			OA
456	C	2			OA
457	C	2			OA
458	C	2			OA
459	C	2			OA
460	C	2			OA
461	C	2			OA
462	C	2			OA
463	C	2			OA
464	C	5			OA
465	C	1			OA
466	C	1			OA
467	C	1			OA
468	C	1			OA
469	C	2			OA
470	C	2			OA
471	C	2			OA
472	C	2			OA
473	C	2			OA
474	C	2			OA
475	C	2			OA
476	C	2			OA
477	C	2			OA
478	C	2			OA
479	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
480	C	2			OA
481	C	2			OA
482	C	2			OA
483	C	2			OA
484	C	2			OA
485	C	2			OA
486	C	2			OA
487	C	2			OA
488	C	2			OA
489	C	2			OA
490	C	2			OA
491	C	2			OA
492	C	2			OA
493	C	2			OA
494	C	2			OA
495	C	2			OA
496	C	2			OA
497	C	2			OA
498	C	2			OA
499	C	2			OA
500	C	2			OA
501	C	2			OA
502	C	2			OA
503	C	2			OA
504	C	2			OA
505	C	2			OA
506	C	2			OA
507	C	2			OA
508	C	2			OA
509	C	2			OA
510	C	2			OA
511	C	2			OA
512	C	2			OA
513	C	2			OA
514	C	2			OA
515	C	2			OA
516	C	2			OA
517	C	2			OA
518	C	2			OA
519	C	2			OA
520	C	2			OA
521	C	2			OA
522	C	2			OA
523	C	2			OA
524	C	2			OA
525	C	2			OA
526	C	2			OA
527	C	2			OA
528	C	2			OA
529	C	2			OA
530	C	2			OA
531	C	2			OA
532	C	2			OA
533	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
534	C	2			OA
535	C	2			OA
536	C	2			OA
537	C	2			OA
538	C	2			OA
539	C	2			OA
540	C	2			OA
541	C	2			OA
542	C	2			OA
543	C	2			OA
544	C	2			OA
545	C	2			OA
546	C	2			OA
547	C	2			OA
548	C	2			OA
549	C	2			OA
550	C	2			OA
551	C	2			OA
552	C	2			OA
553	C	2			OA
554	C	2			OA
555	C	2			OA
556	C	2			OA
557	C	2			OA
558	C	2			OA
559	C	2			OA
560	C	2			OA
561	C	2			OA
562	C	2			OA
563	C	2			OA
564	C	2			OA
565	C	2			OA
566	C	2			OA
567	C	2			OA
568	C	2			OA
569	C	2			OA
570	C	2			OA
571	C	2			OA
572	C	2			OA
573	C	2			OA
574	C	2			OA
575	C	2			OA
576	C	2			OA
577	C	2			OA
578	C	2			OA
579	C	2			OA
580	C	2			OA
581	C	2			OA
582	C	2			OA
583	C	2			OA
584	C	2			OA
585	C	2			OA
586	C	2			OA
587	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
588	C	2			OA
589	C	2			OA
590	C	2			OA
591	C	2			OA
592	C	2			OA
593	C	2			OA
594	C	2			OA
595	C	2			OA
596	C	2			OA
597	C	2			OA
598	C	2			OA
599	C	2			OA
600	C	2			OA
601	C	2			OA
602	C	2			OA
603	C	2			OA
604	C	2			OA
605	C	2			OA
606	C	2			OA
607	C	2			OA
608	C	2			OA
609	C	2			OA
610	C	2			OA
611	C	2			OA
612	C	2			OA
613	C	2			OA
614	C	2			OA
615	C	2			OA
616	C	2			OA
617	C	2			OA
618	C	2			OA
619	C	2			OA
620	C	2			OA
621	C	2			OA
622	C	2			OA
623	C	2			OA
624	C	2			OA
625	C	2			OA
626	C	2			OA
627	C	2			OA
628	C	2			OA
629	C	2			OA
630	C	2			OA
631	C	2			OA
632	C	2			OA
633	C	2			OA
634	C	2			OA
635	C	2			OA
636	C	2			OA
637	C	2			OA
638	C	2			OA
639	C	2			OA
640	C	2			OA
641	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
642	C	2			OA
643	C	2			OA
644	C	2			OA
645	C	2			OA
646	C	2			OA
647	C	2			OA
648	C	2			GR
649	C	2			GR
650	C	2			GR
651	C	2			GR
652	C	2			GR
653	C	2			GR
654	C	2			GR
655	C	2			GR
656	C	2			GR
657	C	2			GR
658	C	2			GR
659	C	2			GR
660	C	2			GR
661	C	2			GR
662	C	2			GR
663	C	3			GR
664	C	2			GR
665	C	2			GR
666	C	2			GR
667	C	2			GR
668	C	2			GR
669	C	2			OA
670	C	3			GR
671	C	3			GR
672	C	2			GR
673	C	2			GR
674	C	2			OA
675	C	2			OA
676	C	2			OA
677	C	2			OA
678	C	2			OA
679	C	2			GR
680	C	2			OA
681	C	2			OA
682	C	2			OA
683	C	2			OA
684	C	2			OA
688	C	4			OA
689	C	2			OA
690	C	4			OA
691	C	2			OA
692	C	2			OA
693	C	2			OA
694	C	2			OA
695	C	2			OA
696	C	2			OA
697	C	2			OA
698	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
699	C	2			OA
700	C	2			OA
701	C	3			GR
702	C	2			GR
703	C	2			GR
704	C	2			GR
705	C	3			OA
706	C	1			OA
707	C	4			OA
708	C	3			OA
709	C	2			OA
710	C	2			GR
711	C	2			GR
712	C	2			GR
713	C	2			OA
714	C	4			OA
715	C	2			GR
716	C	5			OA
717	C	2			GR
718	C	2			GR
719	C	2			GR
720	C	2			GR
721	C	2			GR
722	C	2			GR
723	C	2			GR
724	C	2			GR
725	C	2			GR
726	C	2			GR
727	C	2			GR
728	C	2			GR
729	C	2			GR
730	C	2			GR
731	C	2			GR
732	C	2			GR
733	C	2			GR
734	C	2			GR
735	C	5			GR
736	C	1			GR
737	C	1			GR
738	C	2			GR
739	C	2			GR
740	C	2			GR
741	C	1			GR
742	C	2			GR
743	C	1			GR
744	C	2			GR
745	C	2			GR
746	C	2			GR
747	C	2			GR
748	C	2			GR
749	C	2			GR
750	C	2			GR
751	C	1			GR
752	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
753	C	5			GR
754	C	2			GR
755	C	2			GR
756	C	2			GR
757	C	2			GR
758	C	2			GR
759	C	2			GR
760	C	2			GR
761	C	2			GR
762	C	2			GR
763	C	2			GR
764	C	2			GR
765	C	2			GR
766	C	2			GR
767	C	1			GR
768	C	5			GR
769	C	3			OA
770	C	1			OA
771	C	1			OA
772	C	1			OA
773	C	2			GR
774	C	2			GR
775	C	2			GR
776	C	1			GR
777	C	2			GR
778	C	1			GR
779	C	2			GR
780	C	1			GR
781	C	2			GR
782	C	2			GR
783	C	2			GR
784	C	2			GR
785	C	2			GR
786	C	2			GR
787	C	1			GR
788	C	2			OA
789	C	2			GR
790	C	2			GR
791	C	2			OA
792	C	1			OA
793	C	2			OA
794	C	3			OA
795	C	2			OA
796	C	2			OA
797	C	1			OA
798	C	1			GR
799	C	1			GR
800	C	2			GR
801	C	2			OA
802	C	2			OA
803	C	2			OA
804	C	2			OA
805	C	2			GR
806	C	2			OA

EE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
807	C	2			OA
808	C	2			OA
809	C	2			OA
810	C	2			OA
811	C	2			GR
812	C	2			GR
813	C	2			GR
814	C	2			GR
815	C	2			GR
816	C	2			GR
817	C	5			GR
818	C	2			GR
819	C	2			GR
820	C	2			GR
821	C	1			OA
822	C	2			GR
825	C	3			OA
826	C	2			OA
827	C	2			OA
828	C	2			OA
829	C	3			OA
830	C	3			OA
831	C	3			OA
832	C	2			OA
833	C	3			OA
834	C	3			OA
835	C	3			OA
836	C	2			OA
837	C	2			OA
838	C	3			OA
839	C	3			OA
840	C	2			OA
841	C	2			OA
842	C	2			OA
843	C	2			OA
844	C	4			OA
845	C	5			OA
846	C	3			OA
847	C	2			OA
848	C	2			OA
849	C	2			OA
850	C	2			OA
851	C	2			OA
852	C	2			OA
853	C	2			OA
854	C	5			OA
855	C	4			OA
856	C	3			OA
857	C	2			OA
858	C	2			OA
859	C	2			OA
860	C	2			OA
861	C	2			OA
862	C	1			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
863	C	1			OA
864	C	2			OA
865	C	2			OA
866	C	2			OA
867	C	2			OA
868	C	2			OA
869	C	2			OA
870	C	2			OA
871	C	2			GR
872	C	2			GR
873	C	2			GR
874	C	3			GR
875	C	2			GR
876	C	2			GR
877	C	2			GR
878	C	2			GR
879	C	2			GR
880	C	2			GR
881	C	2			GR
882	C	2			GR
883	C	2			GR
884	C	2			GR
885	C	3			GR
886	C	3			OA
887	C	3			OA
888	C	3			OA
889	C	2			OA
890	C	2			OA
891	C	2			OA
892	C	2			OA
893	C	2			OA
894	C	2			GR
895	C	2			GR
896	C	2			GR
897	C	2			GR
899	C	2			OA
900	C	2			OA
901	C	2			OA
902	C	2			OA
903	C	2			OA
904	C	2			OA
905	C	2			OA
906	C	2			OA
907	C	2			OA
908	C	2			OA
909	C	2			OA
910	C	2			OA
911	C	3			GR
912	C	5			OA
913	C	2			GR
914	C	1			GR
915	C	1			GR
916	C	5			GR
917	C	3			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
918	C	2			GR
919	C	2			GR
920	C	2			GR
921	C	2			GR
922	C	2			GR
923	C	2			GR
924	C	2			GR
925	C	2			GR
926	C	2			GR
927	C	2			OA
928	C	2			OA
929	C	2			GR
930	C	2			GR
931	C	2			GR
932	C	2			GR
933	C	2			OA
934	C	2			OA
935	C	2			OA
936	C	2			GR
937	C	2			GR
938	C	2			GR
939	C	2			GR
940	C	2			GR
941	C	2			GR
942	C	2			GR
943	C	2			GR
944	C	2			GR
945	C	2			GR
946	C	2			GR
947	C	2			GR
948	C	2			OA
949	C	2			OA
950	C	2			OA
951	C	2			OA
952	C	2			OA
953	C	2			OA
954	C	2			GR
955	C	2			GR
956	C	2			GR
957	C	2			OA
958	C	2			OA
959	C	2			OA
960	C	2			OA
961	C	2			OA
962	C	2			OA
963	C	2			OA
964	C	2			OA
965	C	2			OA
966	C	2			OA
967	C	2			OA
968	C	2			GR
969	C	2			GR
970	C	2			GR
971	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
972	C	2			OA
973	C	2			OA
974	C	2			OA
975	C	2			OA
976	C	2			GR
977	C	2			GR
978	C	2			GR
979	C	2			OA
980	C	2			OA
981	C	2			OA
982	C	2			OA
983	C	2			OA
984	C	2			OA
985	C	2			OA
986	C	2			OA
987	C	2			OA
988	C	2			OA
989	C	2			OA
990	C	2			OA
991	C	2			OA
992	C	2			OA
993	C	2			OA
994	C	2			OA
995	C	2			OA
996	C	2			OA
997	C	2			OA
998	C	2			OA
999	C	2			OA
1,000	C	2			OA
1,001	C	2			OA
1,002	C	2			OA
1,003	C	2			OA
1,004	C	2			OA
1,005	C	2			OA
1,006	C	2			OA
1,007	C	2			OA
1,008	C	2			OA
1,009	C	2			OA
1,010	C	2			OA
1,011	C	2			OA
1,012	C	2			OA
1,013	C	2			OA
1,014	C	2			OA
1,015	C	2			OA
1,016	C	2			OA
1,017	C	2			OA
1,018	C	2			OA
1,019	C	2			OA
1,020	C	2			OA
1,021	C	2			OA
1,022	C	2			OA
1,023	C	2			OA
1,024	C	2			OA
1,025	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,026	C	2			OA
1,027	C	2			OA
1,028	C	2			OA
1,029	C	2			GR
1,030	C	1			GR
1,031	C	2			GR
1,033	C	2			OA
1,034	C	2			OA
1,035	C	2			OA
1,036	C	2			OA
1,037	C	2			OA
1,038	C	2			OA
1,039	C	2			OA
1,040	C	2			OA
1,041	C	2			OA
1,042	C	2			OA
1,043	C	2			OA
1,044	C	2			OA
1,045	C	2			OA
1,046	C	2			OA
1,047	C	2			OA
1,048	C	2			OA
1,049	C	2			OA
1,050	C	2			OA
1,051	C	2			OA
1,052	C	2			OA
1,053	C	2			OA
1,054	C	2			OA
1,055	C	2			OA
1,056	C	2			OA
1,057	C	2			OA
1,058	C	2			OA
1,059	C	2			OA
1,060	C	2			OA
1,061	C	2			OA
1,062	C	2			OA
1,063	C	2			OA
1,064	C	2			OA
1,065	C	2			OA
1,066	C	2			OA
1,067	C	2			OA
1,068	C	2			OA
1,069	C	2			OA
1,070	C	2			OA
1,071	C	2			OA
1,072	C	2			OA
1,073	C	2			OA
1,074	C	2			OA
1,075	C	2			GR
1,076	C	2			OA
1,077	C	2			OA
1,078	C	2			OA
1,079	C	2			OA
1,080	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,081	C	2			OA
1,082	C	2			OA
1,083	C	2			OA
1,084	C	2			OA
1,085	C	2			OA
1,086	C	2			OA
1,087	C	2			OA
1,088	C	2			OA
1,089	C	2			OA
1,090	C	2			OA
1,091	C	2			OA
1,092	C	4			OA
1,093	C	2			OA
1,094	C	2			OA
1,095	C	2			OA
1,096	C	2			OA
1,097	C	2			OA
1,098	C	2			OA
1,099	C	2			OA
1,100	C	2			OA
1,101	C	2			OA
1,102	C	2			OA
1,103	C	2			OA
1,104	C	2			OA
1,105	C	2			OA
1,106	C	2			OA
1,107	C	2			OA
1,108	C	2			OA
1,109	C	2			OA
1,110	C	2			OA
1,111	C	2			OA
1,112	C	2			OA
1,113	C	2			OA
1,114	C	2			OA
1,115	C	2			OA
1,116	C	2			OA
1,117	C	2			OA
1,118	C	2			OA
1,119	C	2			OA
1,120	C	2			OA
1,121	C	5			OA
1,122	C	2			OA
1,123	C	2			OA
1,124	C	2			OA
1,125	C	2			OA
1,126	C	2			OA
1,127	C	2			OA
1,128	C	2			OA
1,129	C	2			OA
1,130	C	2			OA
1,131	C	2			OA
1,132	C	2			OA
1,133	C	2			OA
1,134	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,135	C	2			OA
1,136	C	2			OA
1,137	C	2			OA
1,138	C	2			OA
1,139	C	2			OA
1,140	C	2			OA
1,141	C	2			OA
1,142	C	2			OA
1,143	C	2			OA
1,144	C	2			OA
1,145	C	2			OA
1,146	V	2			OA
1,147	V	2			OA
1,148	C	2			OA
1,149	C	2			OA
1,150	C	2			OA
1,151	C	2			OA
1,152	C	2			OA
1,153	C	2			OA
1,154	C	2			OA
1,155	C	2			OA
1,156	C	2			OA
1,157	C	2			OA
1,158	C	2			OA
1,159	C	2			OA
1,160	C	2			OA
1,161	C	2			OA
1,162	C	2			OA
1,163	C	2			OA
1,164	C	2			OA
1,165	C	2			OA
1,166	C	2			OA
1,167	C	2			OA
1,168	C	2			OA
1,169	C	2			OA
1,170	C	4			OA
1,171	C	2			OA
1,172	C	2			OA
1,173	C	2			OA
1,174	C	2			OA
1,175	C	2			OA
1,176	C	2			OA
1,177	C	2			OA
1,178	C	2			OA
1,179	C	2			OA
1,180	C	2			OA
1,181	C	2			OA
1,182	C	2			OA
1,183	C	2			OA
1,184	C	2			OA
1,185	C	2			OA
1,186	C	2			OA
1,187	C	2			OA
1,188	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,189	C	2			OA
1,190	C	2			OA
1,191	C	2			OA
1,192	C	2			OA
1,193	C	2			OA
1,194	C	2			OA
1,195	C	2			OA
1,196	C	2			OA
1,197	C	2			OA
1,198	C	2			OA
1,199	C	2			OA
1,200	C	2			OA
1,201	C	2			OA
1,202	C	2			OA
1,203	C	2			OA
1,204	C	2			OA
1,205	C	2			OA
1,206	C	2			OA
1,207	C	2			OA
1,208	C	2			OA
1,209	C	2			OA
1,210	C	2			OA
1,211	C	2			OA
1,212	C	2			OA
1,213	C	2			OA
1,214	C	2			OA
1,215	C	2			OA
1,216	C	2			OA
1,217	C	2			OA
1,218	C	2			OA
1,219	C	2			OA
1,220	C	2			OA
1,221	C	3			OA
1,222	C	2			OA
1,223	C	2			OA
1,224	C	3			OA
1,225	C	2			OA
1,226	C	2			OA
1,227	C	2			OA
1,228	C	2			OA
1,229	C	2			OA
1,230	C	2			OA
1,231	C	2			OA
1,232	C	2			OA
1,233	C	2			OA
1,234	C	1			OA
1,235	C	3			OA
1,236	C	2			OA
1,237	C	2			OA
1,238	C	2			OA
1,239	C	2			OA
1,240	C	2			OA
1,241	C	2			OA
1,242	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,243	C	2			OA
1,244	C	2			OA
1,245	C	2			OA
1,246	C	2			OA
1,247	C	2			OA
1,248	C	2			OA
1,249	C	2			OA
1,250	C	2			OA
1,251	C	2			OA
1,252	C	2			OA
1,253	C	2			OA
1,254	C	2			OA
1,255	C	2			OA
1,256	C	2			OA
1,257	C	2			OA
1,258	C	2			OA
1,259	C	2			OA
1,260	C	2			OA
1,261	C	2			OA
1,262	C	2			OA
1,263	C	2			OA
1,264	C	2			OA
1,265	C	2			OA
1,266	C	2			OA
1,267	C	2			OA
1,268	C	2			OA
1,269	C	2			OA
1,270	C	2			OA
1,271	C	2			OA
1,272	C	2			OA
1,273	C	2			OA
1,274	C	2			OA
1,275	C	2			OA
1,276	C	2			OA
1,277	C	2			OA
1,278	C	2			OA
1,279	C	2			OA
1,280	C	2			OA
1,281	C	2			OA
1,282	C	2			OA
1,283	C	2			OA
1,284	C	2			OA
1,285	C	2			OA
1,286	C	2			OA
1,287	C	2			OA
1,288	C	2			OA
1,289	C	2			OA
1,290	C	2			OA
1,291	C	2			OA
1,292	C	2			OA
1,293	C	2			OA
1,294	C	2			OA
1,295	C	2			OA
1,296	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,297	C	2			OA
1,298	C	2			OA
1,299	C	2			OA
1,300	C	2			OA
1,301	C	2			OA
1,302	C	2			OA
1,303	C	2			OA
1,304	C	2			OA
1,305	C	2			OA
1,306	C	2			OA
1,307	C	2			OA
1,308	C	2			GR
1,309	C	2			OA
1,310	C	2			OA
1,311	C	2			OA
1,312	C	3			OA
1,313	C	2			GR
1,314	C	2			GR
1,315	C	3			GR
1,316	C	2			GR
1,317	C	2			GR
1,318	C	2			GR
1,319	C	3			GR
1,320	C	2			GR
1,321	C	2			GR
1,322	C	5			GR
1,323	C	2			GR
1,324	C	2			GR
1,325	C	2			OA
1,326	C	1			GR
1,327	C	2			OA
1,328	C	2			OA
1,329	C	2			OA
1,330	C	2			GR
1,331	C	2			GR
1,332	C	2			GR
1,333	C	1			GR
1,334	C	2			GR
1,335	C	2			GR
1,336	C	2			GR
1,337	C	2			GR
1,338	C	2			GR
1,339	C	2			GR
1,340	C	2			GR
1,341	C	1			GR
1,342	C	1			GR
1,343	C	1			GR
1,344	C	2			GR
1,345	C	2			GR
1,348	C	1			GR
1,349	C	1			GR
1,350	V	3			GR
1,351	C	3			GR
1,352	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,353	C	1			OA
1,354	C	1			OA
1,355	C	1			OA
1,356	C	1			OA
1,357	C	1			OA
1,358	C	1			OA
1,359	C	3			OA
1,360	C	2			OA
1,361	C	2			OA
1,362	C	2			OA
1,363	C	2			OA
1,364	C	2			OA
1,365	C	3			OA
1,366	C	2			OA
1,367	C	2			OA
1,368	C	2			OA
1,369	C	2			OA
1,370	C	2			OA
1,371	C	2			OA
1,372	C	2			OA
1,373	C	2			OA
1,374	C	2			OA
1,375	C	2			OA
1,376	C	2			OA
1,377	C	2			OA
1,378	C	2			OA
1,379	C	2			GR
1,380	C	2			GR
1,381	C	2			GR
1,382	C	2			GR
1,383	C	2			OA
1,384	C	2			OA
1,385	C	2			OA
1,386	C	2			OA
1,387	C	2			OA
1,388	C	2			OA
1,389	C	2			OA
1,390	C	2			GR
1,391	C	2			GR
1,392	C	2			GR
1,393	C	1			GR
1,394	C	2			GR
1,395	C	2			GR
1,396	C	2			GR
1,397	C	2			GR
1,398	C	1			GR
1,399	C	2			OA
1,400	C	2			OA
1,401	C	2			GR
1,402	C	2			OA
1,403	C	2			GR
1,404	C	2			GR
1,405	C	2			GR
1,406	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,407	C	2			GR
1,408	C	2			OA
1,409	C	3			OA
1,410	C	2			OA
1,411	C	2			OA
1,412	C	2			OA
1,413	C	2			OA
1,414	C	2			OA
1,415	C	2			OA
1,416	C	2			OA
1,417	C	2			OA
1,418	C	2			OA
1,419	C	2			OA
1,420	C	2			OA
1,421	C	2			OA
1,422	C	2			OA
1,423	C	2			OA
1,424	C	2			OA
1,425	C	2			OA
1,426	C	2			OA
1,427	C	2			OA
1,428	C	2			OA
1,429	C	2			OA
1,430	C	2			OA
1,431	C	2			GR
1,432	C	3			GR
1,433	C	2			GR
1,434	C	2			GR
1,435	C	2			GR
1,436	C	2			GR
1,437	C	2			OA
1,438	C	2			GR
1,439	C	2			GR
1,440	C	2			OA
1,441	C	2			OA
1,442	C	2			OA
1,443	C	2			OA
1,444	C	2			OA
1,445	C	2			OA
1,446	C	2			OA
1,447	C	2			OA
1,448	C	2			OA
1,449	C	2			OA
1,450	C	2			OA
1,451	C	1			OA
1,452	C	2			OA
1,453	C	2			OA
1,454	C	2			OA
1,455	C	2			GR
1,456	C	2			GR
1,457	C	2			GR
1,458	C	2			GR
1,459	C	2			GR
1,460	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,461	C	2			GR
1,462	C	2			OA
1,463	C	2			GR
1,464	C	2			GR
1,465	C	2			OA
1,466	C	2			OA
1,467	C	2			GR
1,468	C	2			GR
1,469	C	2			OA
1,470	C	2			OA
1,471	C	2			GR
1,472	C	2			OA
1,473	C	2			OA
1,474	C	3			OA
1,475	C	3			OA
1,476	C	3			OA
1,477	C	2			OA
1,478	C	2			OA
1,479	C	2			OA
1,480	C	2			OA
1,481	C	2			OA
1,482	C	2			GR
1,483	C	2			OA
1,484	C	2			OA
1,485	C	2			OA
1,486	C	2			OA
1,487	C	2			OA
1,488	C	2			OA
1,489	C	2			OA
1,490	C	2			OA
1,491	C	4			OA
1,492	C	2			OA
1,493	C	2			OA
1,494	C	2			OA
1,495	C	2			OA
1,496	C	2			OA
1,497	C	2			OA
1,498	C	3			OA
1,499	C	2			OA
1,500	C	2			OA
1,501	C	2			OA
1,502	C	2			OA
1,503	C	2			OA
1,504	C	2			OA
1,505	C	2			OA
1,506	C	2			OA
1,507	C	5			OA
1,508	C	2			OA
1,509	C	2			OA
1,510	C	2			OA
1,511	C	2			OA
1,512	C	2			OA
1,513	C	2			OA
1,514	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,515	C	2			OA
1,516	C	2			OA
1,517	C	2			OA
1,518	C	2			OA
1,519	C	2			OA
1,520	C	2			OA
1,521	C	2			OA
1,522	C	2			OA
1,523	C	2			OA
1,524	C	2			OA
1,525	C	2			OA
1,526	C	2			OA
1,527	C	2			OA
1,528	C	2			OA
1,529	C	2			OA
1,530	C	2			OA
1,531	C	2			OA
1,532	C	2			OA
1,533	C	2			OA
1,534	C	2			OA
1,535	C	2			OA
1,536	C	2			OA
1,537	C	2			OA
1,538	C	2			OA
1,539	C	2			OA
1,540	C	2			OA
1,541	C	2			OA
1,542	C	2			OA
1,543	C	2			OA
1,544	C	2			OA
1,545	C	2			OA
1,546	C	2			OA
1,547	C	2			OA
1,548	C	2			OA
1,549	C	2			OA
1,550	C	2			OA
1,551	C	2			OA
1,552	C	2			OA
1,553	C	2			OA
1,554	C	2			OA
1,555	C	2			OA
1,556	C	2			OA
1,557	C	2			OA
1,558	C	2			OA
1,559	C	2			OA
1,560	C	2			GR
1,561	C	2			OA
1,562	C	2			OA
1,563	C	2			OA
1,564	C	2			OA
1,565	C	2			OA
1,566	C	2			OA
1,567	C	2			OA
1,568	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,569	C	2			OA
1,570	C	2			OA
1,571	C	2			OA
1,572	C	2			OA
1,573	C	2			OA
1,574	C	2			OA
1,575	C	2			OA
1,576	C	2			OA
1,577	C	2			OA
1,578	C	2			OA
1,579	C	2			OA
1,580	C	2			OA
1,581	C	2			OA
1,582	C	2			OA
1,583	C	2			OA
1,584	C	2			OA
1,585	C	2			OA
1,586	C	2			OA
1,587	C	2			OA
1,588	C	2			OA
1,589	C	2			OA
1,590	C	2			OA
1,591	C	2			OA
1,592	C	2			OA
1,593	C	2			OA
1,594	C	2			OA
1,595	C	2			OA
1,596	C	2			GR
1,597	C	2			GR
1,598	C	2			GR
1,599	C	2			GR
1,600	C	2			GR
1,601	C	2			GR
1,602	C	2			GR
1,603	C	2			GR
1,604	C	2			GR
1,605	C	2			OA
1,606	C	2			OA
1,607	C	2			OA
1,608	C	2			OA
1,609	C	2			OA
1,610	C	2			GR
1,611	C	2			GR
1,612	C	2			GR
1,613	C	2			GR
1,614	C	2			GR
1,615	C	2			GR
1,616	C	2			GR
1,617	C	3			GR
1,618	C	2			GR
1,619	C	2			GR
1,620	C	2			GR
1,621	C	2			GR
1,622	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,623	C	2			GR
1,624	C	2			GR
1,625	C	2			OA
1,626	C	2			OA
1,627	C	2			OA
1,628	C	2			OA
1,629	C	2			OA
1,630	C	2			OA
1,631	C	2			OA
1,632	C	2			OA
1,633	C	2			OA
1,634	C	2			OA
1,635	C	2			GR
1,636	C	2			GR
1,637	C	2			GR
1,638	C	2			GR
1,639	C	2			OA
1,640	C	2			OA
1,641	C	2			OA
1,642	C	2			OA
1,643	C	2			OA
1,644	C	2			OA
1,645	C	2			OA
1,646	C	2			OA
1,647	C	2			OA
1,648	C	2			OA
1,649	C	2			OA
1,650	C	2			OA
1,651	C	3			OA
1,652	C	4			OA
1,653	C	2			OA
1,654	C	2			OA
1,655	C	2			OA
1,656	C	2			OA
1,657	C	2			OA
1,658	C	2			OA
1,659	C	2			GR
1,660	C	2			GR
1,661	C	2			GR
1,662	C	5			OA
1,663	C	2			OA
1,664	C	2			OA
1,665	C	2			OA
1,666	C	2			OA
1,667	C	2			OA
1,668	C	2			OA
1,669	C	2			OA
1,670	C	2			OA
1,671	C	2			OA
1,672	C	2			OA
1,673	C	2			OA
1,674	C	2			OA
1,675	C	2			OA
1,676	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,677	C	2			OA
1,678	C	2			OA
1,679	C	2			OA
1,680	C	2			OA
1,681	C	2			OA
1,682	C	2			OA
1,683	C	2			OA
1,684	C	2			OA
1,685	C	2			OA
1,686	C	2			OA
1,687	C	2			OA
1,688	C	2			OA
1,689	C	2			OA
1,690	C	2			OA
1,691	C	2			OA
1,692	C	2			OA
1,693	C	2			OA
1,694	C	2			OA
1,695	C	2			OA
1,696	C	2			OA
1,697	C	2			OA
1,698	C	2			OA
1,699	C	2			OA
1,700	C	2			GR
1,701	C	2			GR
1,702	C	2			GR
1,703	C	2			OA
1,704	C	2			OA
1,705	C	2			GR
1,706	C	2			GR
1,707	C	2			OA
1,708	C	2			OA
1,709	C	2			OA
1,710	C	2			GR
1,711	C	2			GR
1,712	C	3			GR
1,713	C	2			GR
1,714	C	2			GR
1,715	C	2			GR
1,716	C	2			GR
1,717	C	2			GR
1,718	C	2			GR
1,719	C	2			GR
1,720	C	2			GR
1,721	C	2			GR
1,722	C	2			GR
1,723	C	2			GR
1,724	C	2			GR
1,725	C	2			OA
1,726	C	3			OA
1,727	C	2			GR
1,728	C	2			GR
1,729	C	2			GR
1,730	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,731	C	2			GR
1,732	C	2			GR
1,733	C	2			OA
1,734	C	2			OA
1,735	C	2			OA
1,736	C	2			OA
1,737	C	2			OA
1,738	C	2			OA
1,739	C	2			OA
1,740	C	2			OA
1,741	C	2			OA
1,742	C	2			OA
1,743	C	2			OA
1,744	C	2			OA
1,745	C	2			GR
1,746	C	2			OA
1,747	C	2			OA
1,748	C	2			OA
1,749	C	2			OA
1,750	C	2			OA
1,751	C	2			OA
1,752	C	2			OA
1,753	C	2			OA
1,754	C	2			OA
1,755	C	2			OA
1,756	C	2			OA
1,757	C	2			OA
1,758	C	2			OA
1,759	C	2			OA
1,760	C	2			OA
1,761	C	2			OA
1,762	C	2			OA
1,763	C	2			OA
1,764	C	2			OA
1,765	C	2			OA
1,766	C	2			OA
1,767	C	2			OA
1,768	C	2			OA
1,769	C	2			OA
1,770	C	2			GR
1,771	C	5			GR
1,772	C	3			GR
1,773	C	5			GR
1,774	C	4			OA
1,775	C	2			OA
1,776	C	2			OA
1,777	C	2			OA
1,778	C	2			OA
1,779	C	2			OA
1,780	C	2			OA
1,781	C	2			OA
1,782	C	3			OA
1,783	C	2			OA
1,784	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,785	C	2			OA
1,786	C	3			OA
1,787	C	4			OA
1,788	C	2			OA
1,789	C	2			OA
1,790	C	2			OA
1,791	C	2			OA
1,792	C	2			OA
1,793	C	3			OA
1,794	C	2			OA
1,795	C	2			OA
1,796	C	2			OA
1,797	C	2			OA
1,798	C	2			OA
1,799	C	2			OA
1,800	C	2			OA
1,801	C	2			OA
1,802	C	2			OA
1,803	C	2			OA
1,804	C	2			OA
1,805	C	2			OA
1,806	C	2			OA
1,807	C	2			OA
1,808	C	1			OA
1,809	C	2			OA
1,810	C	2			OA
1,811	C	2			OA
1,812	C	2			OA
1,813	C	2			OA
1,814	C	3			OA
1,815	C	3			OA
1,816	C	3			OA
1,817	C	2			OA
1,818	C	2			OA
1,819	C	2			OA
1,820	C	3			OA
1,821	C	1			OA
1,822	C	2			OA
1,823	C	2			OA
1,824	C	2			OA
1,825	C	2			OA
1,826	C	2			OA
1,827	C	2			OA
1,828	C	2			OA
1,829	C	2			OA
1,830	C	2			OA
1,831	C	2			OA
1,832	C	2			OA
1,833	C	1			OA
1,834	C	2			OA
1,835	C	2			OA
1,836	C	2			OA
1,837	C	2			OA
1,838	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,839	C	2			OA
1,840	C	2			OA
1,841	C	2			OA
1,842	C	2			OA
1,843	C	2			OA
1,844	C	2			OA
1,845	C	2			OA
1,846	C	2			OA
1,847	C	2			OA
1,848	C	2			OA
1,849	C	2			OA
1,850	C	2			OA
1,851	C	2			OA
1,852	C	4			OA
1,853	C	4			OA
1,856	V	2			OA
1,857	V	2			OA
1,858	V	2			OA
1,859	V	3			OA
1,860	V	2			OA
1,861	V	2			OA
1,862	V	2			OA
1,863	V	2			OA
1,865	V	2			OA
1,867	V	2			OA
1,868	C	2			OA
1,869	V	3			OA
1,870	C	2			OA
1,874	V	2			OA
1,875	V	2			OA
1,879	V	2			OA
1,880	V	2			GR
1,882	V	2			GR
1,883	V	2			GR
1,884	V	2			GR
1,885	V	2			GR
1,886	V	2			GR
1,887	V	2			GR
1,888	V	2			GR
1,889	V	2			GR
1,890	V	2			GR
1,891	V	2			GR
1,892	V	2			GR
1,894	V	2			GR
1,896	V	2			GR
1,914	C	2			GR
1,915	C	2			GR
1,916	C	5			OA
1,917	C	4			OA
1,918	C	2			OA
1,919	C	2			OA
1,920	C	2			OA
1,921	C	2			GR
1,922	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,923	C	3			GR
1,924	V	2			GR
1,925	V	2			GR
1,926	V	2			OA
1,928	V	2			OA
1,929	C	2			GR
1,930	C	2			GR
1,931	C	3			OA
1,932	C	2			OA
1,933	C	2			OA
1,934	V	2			OA
1,935	C	2			GR
1,936	C	2			OA
1,937	C	2			OA
1,938	C	2			GR
1,939	C	2			GR
1,940	C	2			OA
1,944	V	2			OA
1,947	V	3			OA
1,948	V	3			OA
1,949	V	3			OA
1,950	C	2			OA
1,951	C	2			GR
1,952	C	2			OA
1,953	C	2			OA
1,954	V	3			OA
1,955	C	2			OA
1,956	C	2			OA
1,957	C	2			OA
1,958	V	2			OA
1,959	C	2			OA
1,960	C	2			GR
1,961	V	1	HERITAGE	136	OA
1,962	V	2			OA
1,963	V	2			OA
1,964	V	2			GR
1,965	V	1			OA
1,966	V	2			OA
1,967	C	2			OA
1,968	C	2			OA
1,969	C	2			OA
1,970	C	2			OA
1,971	C	2			OA
1,972	C	2			OA
1,973	C	2			OA
1,974	C	1			OA
1,975	C	1			OA
1,976	C	2			OA
1,977	V	2			GR
1,978	V	2			OA
1,979	V	2			OA
1,980	V	2			OA
1,981	V	2			OA
1,982	V	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
1,983	V	2			OA
1,984	V	2			OA
1,985	V	2			OA
1,986	V	2			OA
1,987	V	2			OA
1,988	V	2			OA
1,989	V	2			OA
1,990	V	2			GR
1,991	V	2			GR
1,992	V	2			GR
1,993	V	2			OA
1,994	V	2			OA
1,995	V	2			OA
1,996	V	2			GR
1,997	V	2			GR
1,998	V	2			GR
1,999	V	2			GR
2,000	V	2			OA
2,001	V	2			OA
2,002	V	2			OA
2,003	V	2			OA
2,004	V	2			OA
2,005	V	2			OA
2,006	V	2			OA
2,007	V	2			OA
2,008	V	2			OA
2,009	V	2			OA
2,010	V	2			GR
2,011	V	2			OA
2,012	V	2			OA
2,013	V	2			OA
2,014	V	2			OA
2,015	V	2			OA
2,016	V	2			OA
2,017	V	2			OA
2,018	V	2			OA
2,019	V	2			OA
2,020	V	2			OA
2,021	V	2			OA
2,022	V	2			OA
2,023	V	2			OA
2,024	V	2			GR
2,025	V	2			GR
2,026	V	2			OA
2,027	V	2			OA
2,028	V	2			OA
2,029	V	2			OA
2,030	V	2			OA
2,031	V	2			OA
2,032	V	2			OA
2,033	V	2			OA
2,034	V	2			OA
2,035	V	3			OA
2,036	V	3			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,037	V	3			OA
2,038	V	3			OA
2,039	V	3			GR
2,040	V	3			GR
2,041	V	3			GR
2,042	V	3			OA
2,043	V	3			OA
2,044	V	3			OA
2,045	V	3			OA
2,046	V	2			GR
2,047	V	2			OA
2,048	V	1	HERITAGE	120	OA
2,049	V	2	HERITAGE	120	OA
2,050	V	1	HERITAGE	122	OA
2,051	V	1			OA
2,052	V	1			OA
2,053	V	1			GR
2,054	V	1			GR
2,055	V	1			GR
2,056	V	1	HERITAGE	160	OA
2,057	C	1	HERITAGE	127	OA
2,058	V	1	HERITAGE	122	OA
2,059	C	1			OA
2,060	V	5			OA
2,061	V	4			GR
2,062	V	4			OA
2,063	V	4			OA
2,064	V	2	HERITAGE	110	GR
2,065	V	2	HERITAGE	127	GR
2,066	V	1	HERITAGE	138	GR
2,067	V	1	HERITAGE	115	OA
2,068	V	1	HERITAGE	177	GR
2,069	V	1	HERITAGE	119	OA
2,070	V	1	HERITAGE	137	OA
2,071	C	2			OA
2,072	C	2			OA
2,073	C	2			OA
2,074	C	2			OA
2,075	C	2			OA
2,076	C	2			OA
2,077	C	2			OA
2,078	C	2			OA
2,079	C	2			OA
2,080	C	2			OA
2,081	C	2			OA
2,082	C	2			OA
2,083	C	2			OA
2,084	C	2			OA
2,085	C	2			OA
2,086	C	2			OA
2,087	C	2			OA
2,088	C	2			OA
2,089	C	2			OA
2,090	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,091	C	2			OA
2,092	C	2			OA
2,093	C	2			OA
2,094	C	2			OA
2,095	C	2			OA
2,096	C	2			OA
2,097	C	2			OA
2,098	C	2			OA
2,099	C	2			OA
2,100	C	2			OA
2,101	C	2			OA
2,102	C	2			OA
2,103	C	2			OA
2,104	C	2			OA
2,105	C	2			OA
2,106	C	2			OA
2,107	C	2			OA
2,108	C	2			OA
2,109	C	2			OA
2,110	C	2			OA
2,111	C	2			OA
2,112	C	2			OA
2,113	C	2			OA
2,114	C	2			OA
2,115	C	2			OA
2,116	C	2			OA
2,117	C	2			OA
2,118	C	2			OA
2,119	C	2			OA
2,120	C	2			OA
2,121	C	2			OA
2,122	C	2			OA
2,123	C	2			OA
2,124	C	2			GR
2,125	C	2			OA
2,126	C	2			OA
2,127	C	2			OA
2,128	C	2			OA
2,129	C	2			OA
2,130	C	2			OA
2,131	C	2			OA
2,132	C	2			OA
2,133	C	2			OA
2,134	C	2			GR
2,135	C	2			GR
2,136	C	2			OA
2,137	C	2			OA
2,138	C	2			OA
2,139	C	2			OA
2,140	C	2			OA
2,141	C	2			OA
2,142	C	2			OA
2,143	C	2			OA
2,144	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,145	C	2			GR
2,146	C	2			GR
2,147	C	2			OA
2,148	C	2			OA
2,149	C	2			OA
2,150	C	2			OA
2,151	C	2			OA
2,152	C	2			OA
2,153	C	2			OA
2,154	C	2			OA
2,155	C	2			OA
2,156	C	2			OA
2,157	C	2			OA
2,158	C	2			OA
2,159	C	2			GR
2,160	C	2	HERITAGE	103	GR
2,161	C	1	HERITAGE	120	GR
2,162	C	1			OA
2,163	C	1	HERITAGE	116	OA
2,164	C	1	HERITAGE	131	OA
2,165	C	1	HERITAGE	116	OA
2,166	C	1	HERITAGE	142	OA
2,167	C	1	HERITAGE	150	OA
2,168	C	1			OA
2,169	C	3			OA
2,170	C	3			OA
2,171	C	3			OA
2,172	C	1			OA
2,173	V	2			OA
2,174	V	2			OA
2,175	V	2			OA
2,176	V	2			OA
2,177	V	2			OA
2,178	V	2			OA
2,179	V	2			OA
2,180	V	2			OA
2,181	V	2			OA
2,182	V	2			OA
2,183	V	2			OA
2,184	V	2			OA
2,185	V	2			OA
2,186	V	2			OA
2,187	V	2			OA
2,188	V	2			OA
2,189	V	2			OA
2,190	V	2			OA
2,191	V	2			OA
2,192	V	2			OA
2,193	V	2			OA
2,194	V	2			OA
2,195	V	2			OA
2,196	V	2			OA
2,197	V	2			OA
2,198	V	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,199	V	2			OA
2,200	V	2			OA
2,201	V	1			OA
2,202	V	5			OA
2,203	V	2			OA
2,204	V	2			OA
2,205	V	2			OA
2,206	V	2			OA
2,207	V	2			OA
2,208	V	2			OA
2,209	V	2			OA
2,210	V	2			OA
2,211	V	2			OA
2,212	V	2			OA
2,213	V	2			OA
2,214	V	2			OA
2,215	V	2			OA
2,216	V	2			OA
2,217	V	2			OA
2,218	V	1	HERITAGE	150	OA
2,219	C	1	HERITAGE	139	OA
2,220	V	4			OA
2,221	C	2	HERITAGE	111	OA
2,222	C	2			OA
2,223	C	2			OA
2,224	C	2			OA
2,225	C	2			OA
2,226	C	2			OA
2,227	C	2			OA
2,228	C	2			OA
2,229	C	2			OA
2,230	C	2			OA
2,231	C	2			OA
2,232	C	2			OA
2,233	C	2			OA
2,234	C	2			OA
2,235	C	2			OA
2,236	C	2			OA
2,237	C	2			OA
2,238	C	2			OA
2,239	V	1			OA
2,240	V	5			OA
2,241	C	1	HERITAGE	129	GR
2,242	V	2			OA
2,243	C	3			OA
2,244	C	2			OA
2,245	C	2			OA
2,246	C	1			OA
2,247	C	3			OA
2,248	C	3			OA
2,249	C	3			OA
2,250	C	3			OA
2,251	C	3			OA
2,252	C	3			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,253	C	3			OA
2,254	C	3			OA
2,255	C	1	HERITAGE	137	OA
2,256	C	2	HERITAGE	116	OA
2,257	C	2	HERITAGE	112	OA
2,258	C	2	HERITAGE	120	OA
2,259	C	1	HERITAGE	139	GR
2,260	C	1	HERITAGE	110	GR
2,261	C	1	HERITAGE	117	OA
2,262	C	1	HERITAGE	120	GR
2,263	C	2			OA
2,264	C	2			OA
2,265	C	2			OA
2,266	C	2			GR
2,267	C	1			GR
2,268	C	3			OA
2,269	C	3			GR
2,270	C	4			OA
2,271	C	4			OA
2,272	C	2			OA
2,273	C	2			OA
2,274	C	2			OA
2,275	C	2			OA
2,276	C	2			GR
2,277	C	2			GR
2,278	C	2			GR
2,279	C	2			GR
2,280	C	2	HERITAGE	117	OA
2,281	C	1			OA
2,282	C	1			OA
2,283	C	1			OA
2,284	C	1			GR
2,285	C	1			GR
2,286	C	1			GR
2,287	C	1			GR
2,288	C	1			GR
2,290	C	3			OA
2,291	C	3			GR
2,292	C	1	HERITAGE	120	GR
2,293	C	1	HERITAGE	114	GR
2,294	C	1	HERITAGE	125	GR
2,295	C	2	HERITAGE	121	GR
2,296	C	1	HERITAGE	116	GR
2,297	C	1	HERITAGE	137	GR
2,298	C	1	HERITAGE	119	GR
2,299	C	2	HERITAGE	137	GR
2,300	C	2	HERITAGE	110	GR
2,301	C	1	HERITAGE	135	GR
2,302	C	5			GR
2,303	C	5			GR
2,304	C	3			GR
2,305	C	3			GR
2,306	C	2			GR
2,307	C	5			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,308	C	3			GR
2,309	C	3			OA
2,310	C	3			OA
2,311	C	3			OA
2,312	C	3			OA
2,313	C	3			OA
2,314	C	3			OA
2,315	C	3			OA
2,316	C	3			GR
2,317	C	5			OA
2,318	C	5			OA
2,319	C	5			OA
2,320	C	2			OA
2,321	C	5			OA
2,322	C	4			OA
2,323	C	4			OA
2,324	C	4			OA
2,325	C	4			OA
2,326	C	4			OA
2,327	C	3			OA
2,328	C	2			OA
2,329	C	1			OA
2,330	C	1			OA
2,331	C	1			OA
2,332	C	1			OA
2,333	C	3			OA
2,334	C	2			OA
2,335	C	2			OA
2,336	C	2			OA
2,337	C	2			OA
2,338	C	2			OA
2,339	C	2			OA
2,340	C	2			OA
2,341	C	2			OA
2,342	C	2			OA
2,343	C	2			OA
2,344	C	2			OA
2,345	C	2			OA
2,346	C	2			OA
2,347	C	2			OA
2,348	C	2			OA
2,349	C	2			OA
2,350	C	2			OA
2,351	C	2			OA
2,352	C	2			OA
2,353	C	2			OA
2,354	C	2			OA
2,355	C	2			OA
2,356	C	2			OA
2,357	C	2			OA
2,358	C	2			OA
2,359	C	2			OA
2,360	C	2			OA
2,361	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,362	C	2			OA
2,363	C	2			OA
2,364	C	2			OA
2,365	C	2			OA
2,366	C	2			OA
2,367	C	2			OA
2,368	C	2			OA
2,369	C	2			OA
2,370	C	2			OA
2,371	C	2			OA
2,372	C	2			OA
2,373	C	2			OA
2,374	C	2			OA
2,375	C	2			OA
2,376	C	2			OA
2,377	C	2			OA
2,378	C	2			OA
2,379	C	2			OA
2,380	C	2			OA
2,381	C	2			OA
2,382	C	2			OA
2,383	C	2			OA
2,384	C	2			OA
2,385	C	2			OA
2,386	C	2			OA
2,387	C	2			OA
2,388	C	2			OA
2,389	C	2			OA
2,390	C	2			OA
2,391	C	2			OA
2,392	C	2			OA
2,393	C	2			OA
2,394	C	2			OA
2,395	C	2			OA
2,396	C	2			OA
2,397	C	2			OA
2,398	C	2			OA
2,399	C	2			OA
2,400	C	2			OA
2,401	C	2			GR
2,402	C	2			GR
2,403	C	2			OA
2,404	C	2			GR
2,405	C	1			OA
2,406	C	1			OA
2,407	C	1			OA
2,408	C	1			OA
2,409	C	3			OA
2,410	C	1			OA
2,411	C	3			OA
2,412	C	2			OA
2,413	C	2			OA
2,414	C	2			OA
2,415	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,416	C	3			OA
2,417	C	3			OA
2,418	C	2			OA
2,419	C	3			OA
2,420	C	3			OA
2,421	C	5			OA
2,422	C	3			OA
2,423	C	3			OA
2,424	C	5			OA
2,425	C	5			OA
2,426	C	5			OA
2,427	C	5			OA
2,428	C	5			OA
2,429	C	3			OA
2,430	C	4			OA
2,431	C	4			OA
2,432	C	4			OA
2,433	C	4			OA
2,434	C	2			OA
2,435	C	2			OA
2,436	C	2			OA
2,437	C	2			OA
2,438	C	2			OA
2,439	C	2			OA
2,440	C	4			OA
2,441	C	4			OA
2,442	C	4			OA
2,443	C	3			OA
2,444	C	3			OA
2,445	C	5			OA
2,446	C	2			OA
2,447	C	2			OA
2,448	C	2			OA
2,449	C	5			OA
2,454	C	2			OA
2,455	C	2			OA
2,456	C	2			OA
2,457	C	2			OA
2,458	C	2			OA
2,459	C	2			OA
2,460	C	2			OA
2,461	C	2			OA
2,462	C	2			OA
2,463	C	2			OA
2,464	C	2			OA
2,465	C	2			OA
2,466	C	2			OA
2,467	C	2			GR
2,468	C	2			OA
2,469	C	2			OA
2,470	C	2			OA
2,471	C	2			OA
2,472	C	2			OA
2,473	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,474	C	2			OA
2,475	C	2			OA
2,476	C	2			OA
2,477	C	2			OA
2,478	C	2			OA
2,479	C	2			OA
2,480	C	2			GR
2,481	C	2			GR
2,482	C	2			GR
2,483	C	3			OA
2,484	C	2			OA
2,485	C	3			OA
2,486	C	3			OA
2,487	C	3			OA
2,488	C	3			OA
2,489	C	3			OA
2,490	C	1	HERITAGE	156	GR
2,491	C	2			OA
2,492	C	3			OA
2,493	C	1	HERITAGE	120	OA
2,494	C	2			GR
2,495	C	2			GR
2,496	C	2			GR
2,497	C	2			GR
2,498	C	2			GR
2,499	C	2			GR
2,500	C	2			OA
2,501	C	2			OA
2,502	C	2			OA
2,503	C	2			OA
2,504	C	2			OA
2,505	C	2			OA
2,506	C	2			OA
2,507	C	2			OA
2,508	C	2			OA
2,509	C	2			GR
2,510	C	2			GR
2,511	C	2			OA
2,512	C	2			GR
2,513	C	2			GR
2,514	C	4			OA
2,515	C	2			OA
2,516	C	2			OA
2,517	C	2			OA
2,518	C	2			OA
2,519	C	5			OA
2,520	C	4			OA
2,521	C	3			OA
2,522	C	2			OA
2,523	C	2			OA
2,524	C	2			OA
2,525	C	2			OA
2,526	C	2			OA
2,527	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,528	C	2			OA
2,529	C	2			OA
2,530	C	2			OA
2,531	C	2			OA
2,532	C	2			OA
2,533	C	2			OA
2,534	C	2			OA
2,535	C	2			OA
2,536	C	2			OA
2,537	C	2			OA
2,538	C	2			OA
2,539	C	2			OA
2,540	C	2			OA
2,541	C	2			OA
2,542	C	2			OA
2,543	C	2			OA
2,544	C	2			GR
2,545	C	2			OA
2,546	C	2			OA
2,547	C	2			OA
2,548	C	2			OA
2,549	C	2			OA
2,550	C	2			OA
2,551	C	2			OA
2,552	C	2			OA
2,553	C	2			OA
2,554	C	2			OA
2,555	C	2			OA
2,556	C	2			OA
2,557	C	2			OA
2,558	C	2			OA
2,559	C	2			OA
2,560	C	2			OA
2,561	C	2			OA
2,562	C	2			OA
2,563	C	2			OA
2,564	C	2			OA
2,565	C	2			OA
2,566	C	2			OA
2,567	C	2			OA
2,568	C	2			OA
2,569	C	2			OA
2,570	C	2			OA
2,571	C	2			OA
2,572	C	2			OA
2,573	C	2			OA
2,574	C	2			OA
2,575	C	2			OA
2,576	C	2			OA
2,577	C	2			OA
2,578	C	2			OA
2,579	C	2			OA
2,580	C	2			OA
2,581	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,582	C	2			OA
2,583	C	2			OA
2,584	C	2			OA
2,585	C	2			OA
2,586	C	2			OA
2,587	C	2			OA
2,588	C	2			OA
2,589	C	2			OA
2,590	C	2			OA
2,591	C	2			OA
2,592	C	2			OA
2,593	C	2			OA
2,594	C	2			GR
2,595	C	2			GR
2,596	C	2			GR
2,597	C	2			GR
2,598	C	2			GR
2,599	C	2			GR
2,600	C	2			GR
2,601	C	2			GR
2,602	C	2			GR
2,603	C	2			GR
2,604	C	2			OA
2,605	C	2			GR
2,606	C	2			GR
2,607	C	2			OA
2,608	C	2			OA
2,609	C	2			OA
2,610	C	2			OA
2,611	C	2			OA
2,612	C	2			OA
2,613	C	2			OA
2,614	C	2			OA
2,615	C	2			OA
2,616	C	2			OA
2,617	C	2			OA
2,618	C	2			OA
2,619	C	2			OA
2,620	C	2			OA
2,621	C	2			OA
2,622	C	2			OA
2,623	C	2			OA
2,624	C	2			OA
2,625	C	2			OA
2,626	C	2			OA
2,627	C	2			OA
2,628	C	2			OA
2,629	C	2			OA
2,630	C	2			OA
2,631	C	2			OA
2,632	C	2			OA
2,633	C	2			OA
2,634	C	2			OA
2,635	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,636	C	2			OA
2,637	C	2			OA
2,638	C	2			OA
2,639	C	2			OA
2,640	C	2			OA
2,641	C	2			OA
2,642	C	2			OA
2,643	C	2			OA
2,644	C	2			OA
2,645	C	2			OA
2,646	C	2			OA
2,647	C	2			OA
2,648	C	2			OA
2,649	C	2			OA
2,650	C	2			OA
2,651	C	2			OA
2,652	C	2			OA
2,653	C	2			OA
2,654	C	2			OA
2,655	C	2			OA
2,656	C	2			OA
2,657	C	2			OA
2,658	C	2			OA
2,659	C	2			OA
2,660	C	2			OA
2,661	C	2			OA
2,662	C	2			OA
2,663	C	2			OA
2,664	C	2			OA
2,665	C	2			OA
2,666	C	2			OA
2,667	C	2			OA
2,668	C	2			OA
2,669	C	2			OA
2,670	C	2			OA
2,671	C	2			OA
2,672	C	2			OA
2,673	C	2			OA
2,674	C	2			OA
2,675	C	2			OA
2,676	C	2			OA
2,677	C	2			OA
2,678	C	2			OA
2,679	C	2			OA
2,680	C	2			OA
2,681	C	2			OA
2,682	C	2			OA
2,683	C	2			OA
2,684	C	2			OA
2,685	C	2			OA
2,686	C	2			OA
2,687	C	2			OA
2,688	C	2			OA
2,689	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,690	C	2			OA
2,691	C	2			OA
2,692	C	2			OA
2,693	C	1			OA
2,694	C	1			OA
2,695	C	1			OA
2,696	C	1			OA
2,697	C	1			OA
2,698	C	1			OA
2,699	C	1			OA
2,700	C	1			OA
2,701	C	1			OA
2,702	C	1			OA
2,703	C	2			OA
2,704	C	3			OA
2,705	C	5			OA
2,706	C	4			OA
2,707	C	3			OA
2,708	C	2	HERITAGE	170	OA
2,709	C	2			OA
2,710	C	3			OA
2,711	C	3			OA
2,712	C	3			OA
2,713	C	1			OA
2,714	C	1			OA
2,715	C	1			OA
2,716	C	1			OA
2,717	C	1			OA
2,718	C	1			OA
2,719	C	1			OA
2,720	C	1			OA
2,721	C	1			OA
2,722	C	1			OA
2,723	C	1			OA
2,724	C	1	HERITAGE	133	OA
2,725	C	3			OA
2,726	C	3			OA
2,727	C	3			OA
2,728	C	1	HERITAGE	123	OA
2,729	C	1	HERITAGE	175	OA
2,730	C	2			OA
2,731	C	2			GR
2,732	C	2			OA
2,733	C	2			OA
2,734	C	2			OA
2,735	C	2			OA
2,736	C	2			OA
2,737	C	2			OA
2,738	C	3			OA
2,739	C	1	HERITAGE	127	GR
2,740	C	2	HERITAGE	137	OA
2,741	C	1			OA
2,742	C	1			OA
2,743	C	1			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,744	C	1			OA
2,745	C	1			OA
2,746	C	1			OA
2,747	C	5			OA
2,748	C	2	HERITAGE	131	OA
2,749	C	1	HERITAGE	148	OA
2,750	C	4			OA
2,751	C	2			OA
2,752	C	2			OA
2,753	C	2			OA
2,754	C	2			OA
2,755	C	2			OA
2,756	C	2			OA
2,757	C	2			OA
2,758	C	2			OA
2,759	C	2			OA
2,760	C	2			OA
2,761	C	2			OA
2,762	C	2			OA
2,763	C	2			OA
2,764	C	4			OA
2,765	C	4			OA
2,766	C	4			OA
2,767	C	4			OA
2,768	C	4			OA
2,769	C	5			OA
2,770	C	5			OA
2,771	C	1			OA
2,772	C	1			OA
2,773	C	1			OA
2,774	C	1			OA
2,775	C	1			OA
2,776	C	3			OA
2,777	C	3			OA
2,778	C	3			OA
2,779	C	4			OA
2,780	C	4			OA
2,781	C	1			GR
2,782	C	1			OA
2,783	C	1			OA
2,784	C	1	HERITAGE	140	OA
2,785	C	3			OA
2,786	C	2	HERITAGE	130	GR
2,797	V	2	HERITAGE	110	GR
2,798	V	5			GR
2,799	V	3			GR
2,800	V	1	HERITAGE	115	GR
2,801	V	3			GR
2,802	V	3			GR
2,803	C	2	HERITAGE	152	GR
2,804	C	3	HERITAGE	131	OA
2,805	C	1			GR
2,806	C	2			GR
2,807	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,808	C	2			GR
2,809	C	2			GR
2,810	C	2			GR
2,811	C	2			GR
2,812	C	2			GR
2,813	C	2			GR
2,814	V	3			OA
2,815	V	2			GR
2,816	V	2			OA
2,817	C	2			GR
2,818	C	2			GR
2,819	C	2			GR
2,820	C	2			GR
2,821	C	2			GR
2,822	C	2			GR
2,823	C	2			OA
2,824	C	2			OA
2,825	C	2			OA
2,826	C	2			GR
2,827	C	2			GR
2,828	C	2			GR
2,829	C	2			GR
2,830	C	2			GR
2,831	C	2	HERITAGE	139	GR
2,832	C	2	HERITAGE	150	OA
2,833	C	1			GR
2,834	C	2	HERITAGE	212	GR
2,835	C	1	HERITAGE	112	GR
2,836	C	1			OA
2,838	C	1	HERITAGE	110	OA
2,839	V	2			GR
2,840	V	2			GR
2,841	V	3			GR
2,842	V	2			OA
2,843	V	2			OA
2,844	V	2			OA
2,845	V	2			OA
2,846	V	2			GR
2,847	V	2			GR
2,848	V	2			GR
2,849	V	2			GR
2,850	V	2			GR
2,851	V	2			GR
2,852	V	2			GR
2,853	V	2			OA
2,854	V	2			GR
2,855	V	2			GR
2,856	V	3			OA
2,857	V	3			OA
2,858	V	3			OA
2,859	V	1	HERITAGE	116	GR
2,860	V	3			GR
2,861	V	3			GR
2,862	V	3			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,863	V	3	HERITAGE	114	GR
2,864	V	2	HERITAGE	132	OA
2,865	V	2	HERITAGE	110	OA
2,866	V	2			GR
2,867	V	2			OA
2,868	V	2			OA
2,869	V	2			OA
2,870	V	2			OA
2,871	V	2			GR
2,872	V	2			OA
2,873	V	2			OA
2,874	V	2			OA
2,875	V	2			OA
2,876	V	2			GR
2,877	V	2			GR
2,878	V	2			OA
2,879	V	2			GR
2,880	V	2			OA
2,881	V	2			OA
2,882	V	2			OA
2,883	V	2			OA
2,884	V	3			OA
2,885	V	3			OA
2,886	V	3			GR
2,887	V	3			GR
2,888	V	3			OA
2,889	V	4			OA
2,890	V	1	HERITAGE	110	GR
2,891	V	4	HERITAGE	120	GR
2,892	V	1	HERITAGE	170	GR
2,893	V	1	HERITAGE	135	OA
2,894	V	2	HERITAGE	111	OA
2,895	V	1	HERITAGE	128	OA
2,896	V	1	HERITAGE	121	OA
2,897	V	2	HERITAGE	110	OA
2,898	V	4			OA
2,899	V	4			OA
2,900	V	3			OA
2,901	V	3			OA
2,902	V	2			OA
2,903	V	2			OA
2,904	V	3			OA
2,905	V	3	HERITAGE	138	OA
2,906	V	4			GR
2,907	V	1	HERITAGE	142	GR
2,908	C	2			GR
2,909	C	2			GR
2,910	C	2			GR
2,911	V	2			GR
2,912	V	3			GR
2,913	C	2			OA
2,914	C	2			OA
2,915	C	2			OA
2,916	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,917	C	2			OA
2,918	C	2			OA
2,919	C	2			OA
2,920	C	2			GR
2,921	C	2			GR
2,922	C	2			OA
2,923	C	2			OA
2,924	C	2			OA
2,925	C	2			OA
2,926	C	2			OA
2,927	C	2			GR
2,928	C	2			GR
2,929	C	2			GR
2,930	C	2			GR
2,931	C	2			GR
2,932	C	5			OA
2,933	C	5			OA
2,934	C	5			OA
2,935	C	5			OA
2,936	C	5			OA
2,937	C	1	HERITAGE	138	OA
2,938	C	2			OA
2,939	C	2			OA
2,940	C	2			OA
2,941	C	2			OA
2,942	C	2			OA
2,943	C	2			OA
2,944	C	2			OA
2,945	C	2			OA
2,946	C	2			OA
2,947	C	2			OA
2,948	C	2			OA
2,949	C	2			OA
2,950	C	2			OA
2,951	C	2			OA
2,952	C	2			OA
2,953	C	2			OA
2,954	C	2			OA
2,955	C	2			OA
2,956	C	2			OA
2,957	C	2			OA
2,958	C	2			OA
2,959	C	2			OA
2,960	C	2			OA
2,961	C	2			OA
2,962	C	2			OA
2,963	C	2			OA
2,964	C	2			OA
2,965	C	2			OA
2,966	C	2			OA
2,967	C	2			OA
2,968	C	2			OA
2,969	C	2			OA
2,970	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
2,971	C	2			OA
2,972	C	2			OA
2,973	C	2			OA
2,974	C	2			OA
2,975	C	2			OA
2,976	C	2			OA
2,977	C	2			OA
2,978	C	2			OA
2,979	C	2			OA
2,980	C	2			OA
2,981	C	2			OA
2,982	C	2			OA
2,983	C	2			OA
2,984	C	2			OA
2,985	C	2			OA
2,986	C	2			OA
2,987	C	2			OA
2,988	C	2			OA
2,989	C	2			OA
2,990	C	2			OA
2,991	C	2			OA
2,992	C	2			OA
2,993	C	2			OA
2,994	C	2			OA
2,995	C	2			OA
2,996	C	2			OA
2,997	C	2			OA
2,998	C	2			OA
2,999	C	2			OA
3,000	C	2			OA
3,001	C	2			OA
3,002	C	2			OA
3,003	C	2			OA
3,004	C	2			OA
3,005	C	2			OA
3,006	C	2			OA
3,007	C	2			OA
3,008	C	2			OA
3,009	C	2			OA
3,010	C	2			OA
3,011	C	2			OA
3,012	C	2			OA
3,013	C	2			OA
3,014	C	2			OA
3,015	C	2			OA
3,016	C	2			OA
3,017	C	2			OA
3,018	C	2			OA
3,019	C	2			OA
3,020	C	2			OA
3,021	C	2			OA
3,022	C	2			OA
3,023	C	2			OA
3,024	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,025	C	2			OA
3,026	C	2			OA
3,027	C	2			OA
3,028	C	2			OA
3,029	C	2			OA
3,030	C	2			OA
3,031	C	2			OA
3,032	C	2			OA
3,033	C	2			OA
3,034	C	2			OA
3,035	C	2			OA
3,036	C	2			OA
3,037	C	2			OA
3,038	C	2			OA
3,039	C	2			OA
3,040	C	2			OA
3,041	C	2			OA
3,042	C	2			OA
3,043	C	2			OA
3,044	C	2			OA
3,045	C	2			OA
3,046	C	2			OA
3,047	C	2			OA
3,048	C	2			OA
3,049	C	2			OA
3,050	C	2			OA
3,051	C	2			OA
3,052	C	2			OA
3,053	C	2			OA
3,054	C	2			OA
3,055	C	2			OA
3,056	C	2			OA
3,057	C	2			OA
3,058	C	2			OA
3,059	C	2			OA
3,060	C	2			OA
3,061	C	2			OA
3,062	C	2			OA
3,063	C	2			OA
3,064	C	2			OA
3,065	C	2			OA
3,066	C	2			OA
3,067	C	2			OA
3,068	C	2			OA
3,069	C	2			OA
3,070	C	2			OA
3,071	C	2			OA
3,072	C	2			OA
3,073	C	2			OA
3,074	C	2			OA
3,075	C	2			OA
3,076	C	2			OA
3,077	C	2			OA
3,078	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,079	C	2			OA
3,080	C	2			OA
3,081	C	2			OA
3,082	C	2			OA
3,083	C	2			OA
3,084	C	2			OA
3,085	C	2			OA
3,086	C	2			OA
3,087	C	2			OA
3,088	C	2			OA
3,089	C	2			OA
3,090	C	2			OA
3,091	C	2			OA
3,092	C	2			OA
3,093	C	2			OA
3,094	C	2			OA
3,095	C	2			OA
3,096	C	2			OA
3,097	C	2			OA
3,098	C	2			OA
3,099	C	2			OA
3,100	C	2			OA
3,101	C	2			OA
3,102	C	2			OA
3,103	C	2			OA
3,104	C	2			OA
3,105	C	2			OA
3,106	C	2			OA
3,107	C	2			OA
3,108	C	2			OA
3,109	C	2			OA
3,110	C	2			OA
3,111	C	2			OA
3,112	C	2			OA
3,113	C	2			OA
3,114	C	2			OA
3,115	C	2			OA
3,116	C	2			OA
3,117	C	2			OA
3,118	C	2			OA
3,119	C	2			OA
3,120	C	2			OA
3,121	C	2			OA
3,122	C	2			OA
3,123	C	2			OA
3,124	C	2			OA
3,125	C	2			OA
3,126	C	2			OA
3,127	C	2			OA
3,128	C	2			OA
3,129	C	2			OA
3,130	C	2			OA
3,131	C	2			OA
3,132	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,133	C	2			OA
3,134	C	2			OA
3,135	C	2			OA
3,136	C	2			OA
3,137	C	2			OA
3,138	C	2			OA
3,139	C	2			OA
3,140	C	2			OA
3,141	C	2			OA
3,142	C	2			OA
3,143	C	2			OA
3,144	C	2			OA
3,145	C	2			OA
3,146	C	2			OA
3,147	C	2			OA
3,148	C	2			OA
3,149	C	2			OA
3,150	C	2			OA
3,151	C	2			OA
3,152	C	2			OA
3,153	C	2			OA
3,154	C	2			OA
3,155	C	2			OA
3,156	C	2			OA
3,157	C	2			OA
3,158	C	2			OA
3,159	C	2			OA
3,160	C	2			OA
3,161	C	2			OA
3,162	C	2			OA
3,163	C	2			OA
3,164	C	2			OA
3,165	C	2			OA
3,166	C	2			OA
3,167	C	2			OA
3,168	C	2			OA
3,169	C	2			OA
3,170	C	2			OA
3,171	C	2			OA
3,172	C	2			OA
3,173	C	2			OA
3,174	C	2			OA
3,175	C	2			OA
3,176	C	2			OA
3,177	C	2			OA
3,178	C	2			OA
3,179	C	2			OA
3,180	C	2			OA
3,181	C	2			OA
3,182	C	2			OA
3,183	C	2			OA
3,184	C	2			OA
3,185	C	2			OA
3,186	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,187	C	2			OA
3,188	C	2			OA
3,189	C	2			OA
3,190	C	2			OA
3,191	C	2			OA
3,192	C	2			OA
3,193	C	2			OA
3,194	C	2			OA
3,195	C	2			OA
3,196	C	2			OA
3,197	C	2			OA
3,198	C	2			OA
3,199	C	2			OA
3,200	C	2			OA
3,201	C	2			OA
3,202	C	2			OA
3,203	C	2			OA
3,204	C	2			OA
3,205	C	2			OA
3,206	C	2			OA
3,207	C	2			OA
3,208	C	2			OA
3,209	C	2			OA
3,210	C	2			OA
3,211	C	2			OA
3,212	C	2			OA
3,213	C	2			OA
3,214	C	2			OA
3,215	C	2			OA
3,216	C	2			OA
3,217	C	2			OA
3,218	C	2			OA
3,219	C	2			OA
3,220	C	2			OA
3,221	C	2			OA
3,222	C	2			OA
3,223	C	2			OA
3,224	C	2			OA
3,225	C	2			OA
3,226	C	2			OA
3,227	C	2			OA
3,228	C	2			OA
3,229	C	2			OA
3,230	C	2			OA
3,231	C	2			OA
3,232	C	2			OA
3,233	C	2			OA
3,234	C	2			OA
3,235	C	2			OA
3,236	C	2			OA
3,237	C	2			OA
3,238	C	2			OA
3,239	C	2			OA
3,240	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,241	C	2			OA
3,242	C	2			OA
3,243	C	2			OA
3,244	C	2			OA
3,245	C	2			OA
3,246	C	2			OA
3,247	C	2			OA
3,248	C	2			OA
3,249	C	1	HERITAGE	125	OA
3,250	C	3			OA
3,251	C	1	HERITAGE	152	OA
3,252	C	2	HERITAGE	135	OA
3,253	C	1	HERITAGE	153	OA
3,254	C	3			OA
3,255	C	5			OA
3,256	C	3			OA
3,257	C	3			OA
3,258	C	5			OA
3,259	C	4	HERITAGE	130	OA
3,260	C	2	HERITAGE	140	OA
3,261	C	2	HERITAGE	118	OA
3,262	C	1			OA
3,263	C	2			OA
3,264	C	3			OA
3,265	C	1			OA
3,266	C	4	HERITAGE	118	OA
3,267	C	1			OA
3,268	C	2	HERITAGE	116	OA
3,269	C	2	HERITAGE	138	OA
3,270	C	1			OA
3,271	C	3			OA
3,272	C	2	HERITAGE	115	OA
3,273	C	3			OA
3,274	C	2			OA
3,275	C	2			OA
3,276	C	2			OA
3,277	C	2			OA
3,278	C	2			OA
3,279	C	2			OA
3,280	C	2			OA
3,281	C	2			OA
3,282	C	2			OA
3,283	C	2			GR
3,284	C	2			OA
3,285	C	2			OA
3,286	C	2			OA
3,287	C	2			OA
3,288	C	2			OA
3,289	C	2			OA
3,290	C	2			OA
3,291	C	2			OA
3,292	C	2			OA
3,293	C	2			GR
3,294	C	2			GR

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,295	C	2	HERITAGE	118	OA
3,296	C	1			GR
3,297	C	1			GR
3,298	C	2			GR
3,299	C	2			GR
3,300	C	2			GR
3,301	C	1			OA
3,302	C	1			GR
3,303	C	4			OA
3,304	C	2			GR
3,305	C	2			GR
3,306	C	1	HERITAGE	130	OA
3,307	C	2	HERITAGE	126	OA
3,308	C	1	HERITAGE	180	GR
3,309	C	1	HERITAGE	160	GR
3,310	C	1	HERITAGE	181	GR
3,311	C	2			OA
3,312	C	1	HERITAGE	130	OA
3,313	C	1	HERITAGE	119	GR
3,314	C	1	HERITAGE	137	GR
3,315	C	1			OA
3,316	C	2			OA
3,317	C	1			OA
3,318	C	2	HERITAGE	119	OA
3,319	C	4	HERITAGE	114	OA
3,320	C	1	HERITAGE	115	OA
3,321	C	1	HERITAGE	150	OA
3,322	C	3			OA
3,323	C	3			OA
3,324	C	3			OA
3,325	C	1	HERITAGE	116	OA
3,326	C	1	HERITAGE	190	OA
3,327	C	1	HERITAGE	150	OA
3,328	C	2			GR
3,329	C	1	HERITAGE	130	OA
3,330	C	2	HERITAGE	226	GR
3,331	C	1	HERITAGE	135	GR
3,332	C	1			GR
3,333	V	2			OA
3,334	V	2			OA
3,335	C	2			OA
3,336	C	2			OA
3,337	C	2			OA
3,338	C	2			OA
3,339	C	2			OA
3,340	C	2			OA
3,341	V	2			OA
3,342	C	2			OA
3,343	C	2			OA
3,344	C	2			GR
3,345	C	2			OA
3,346	C	2			OA
3,347	C	2			OA
3,348	C	2			OA

TREE I.D.	TYPE C/V	HEALTH (1 - 5)	HERITAGE	CIRCUMFERENCE	IMPACTED (GR/OA)
3,349	C	2			OA
3,350	C	2			OA
3,351	C	2			OA
3,352	C	1			OA
3,353	C	3			OA
3,354	C	4			OA
3,355	C	4			OA
3,356	C	4			OA
3,357	C	1			OA
3,359	V	5			GR
3,360	V	4			GR
3,361	V	5			GR
3,362	V	2			OA
3,363	V	2			GR
3,364	V	2	HERITAGE	129	GR
3,365	C	2	HERITAGE	111	OA
3,366	C	2			OA
3,367	V	1			OA
3,368	V	2			GR
3,369	C	2			GR
3,370	V	3			GR
3,371	C	3			GR
3,372	C	3			GR
3,378	C	3			GR
3,379	C	2			OA
3,380	C	2			OA
3,381	C	1	HERITAGE	116	GR
3,382	C	1	HERITAGE	120	OA
3,383	C	1	HERITAGE	190	GR
3,384	C	1	HERITAGE	146	GR
3,385	C	4	HERITAGE	230	GR
3,386	C	3	HERITAGE	145	OA
					3,314

Total trees surveyed within Project Boundary - 3,314. Trees surveyed outside of project boundary were omitted from this report.

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SR-126
AREA NOT SURVEYED
AREA NOT SURVEYED
SHEET 1
SHEET 2
SHEET 3
SHEET 4
KEY MAP
NORTH
ENGLISH 0 400' 800'
METRIC 0 150m 300m
Computer Mapping by FORMA Systems
OAK TREE SURVEY MAP
Sheet 3 of 4
1/4/96

OAK TREE SURVEY MAP

Sheet 4 of 4

1/4/96

APPENDIX J
Guidelines Compliance Checklist

GUIDELINE COMPLIANCE CHECKLIST

	PREPARER'S INITIALS	PAGE
Setting		SECTION II
Original U.S.G.S. Topographical Quad Sheet (or color photocopy)		APPENDIX C
Project Site Photographs or Color Photocopies		APPENDIX B
Color Aerial Photographs		APPENDIX A
Biota Survey of the Project Site		SECTION II
Flora and Fauna Lists in Alphabetic/Systematic Order		APPENDIX G & H
Table of Sensitive Species Impacts Matrix		APPENDIX L
Document showing CNDDB Contact		APPENDIX M
Site/Grading Plans		FIGURE BIO-6
Initial Study Questionnaire		APPENDIX K
Impacts		SECTION III
Mitigation Measures		SECTION IV
Mitigation Monitoring		SECTION IV
Preparers Resume/Qualifications		APPENDIX F

APPENDIX K
Initial Study Questionaire

3209
06

(STAFF USE)
PROJECT NUMBER(S):

INITIAL STUDY QUESTIONNAIRE
COUNTY OF LOS ANGELES

A. GENERAL INFORMATION

Project Applicant (Owner):	Project Representative:
Newhall Ranch Company, a Division of	
The Newhall Land and Farming Company — Name	Sikand Engineering Associates — Name
23823 Valencia Boulevard — Address	15230 Burbank Boulevard — Address
Valencia, California 91355	Van Nuys, California 91411
(805) 255-4045 — Phone Number	(818) 787-8550 — Phone Number

1. Action requested and project description: Action - General Plan Amendment, Specific Plan, Development Agreement, Conditional Use Permit for wastewater treatment plant. Project Description - See attached land use statistics and development concept.

2. Street location of project: Generally from State Route (SR) 126 on the north and the ridgeline of the Santa Susana Mountains on the south, and from the Los Angeles/Ventura County line on the west and approximately 2,000 feet west of Interstate 5 on the east (See attached locational map).

3a. Present use of site: Primarily vacant with oil and natural gas operations, limited agriculture, and cattle grazing. Several employee homes, oil company office, and miscellaneous other structures are also on site.

3b. Previous use of site or structures: Same as above.

4. Please list any previous cases (if any) related to this project: TPM 20186 and Tract 33870.

5. Other related permit/approvals required. Specify type and granting agency. 1603 permit from California Department of Fish and Game, 404 permit from U.S. Army Corps of Engineers, NPDES permit from Regional Water Quality Control Board, oak tree permits, and future subdivisions.

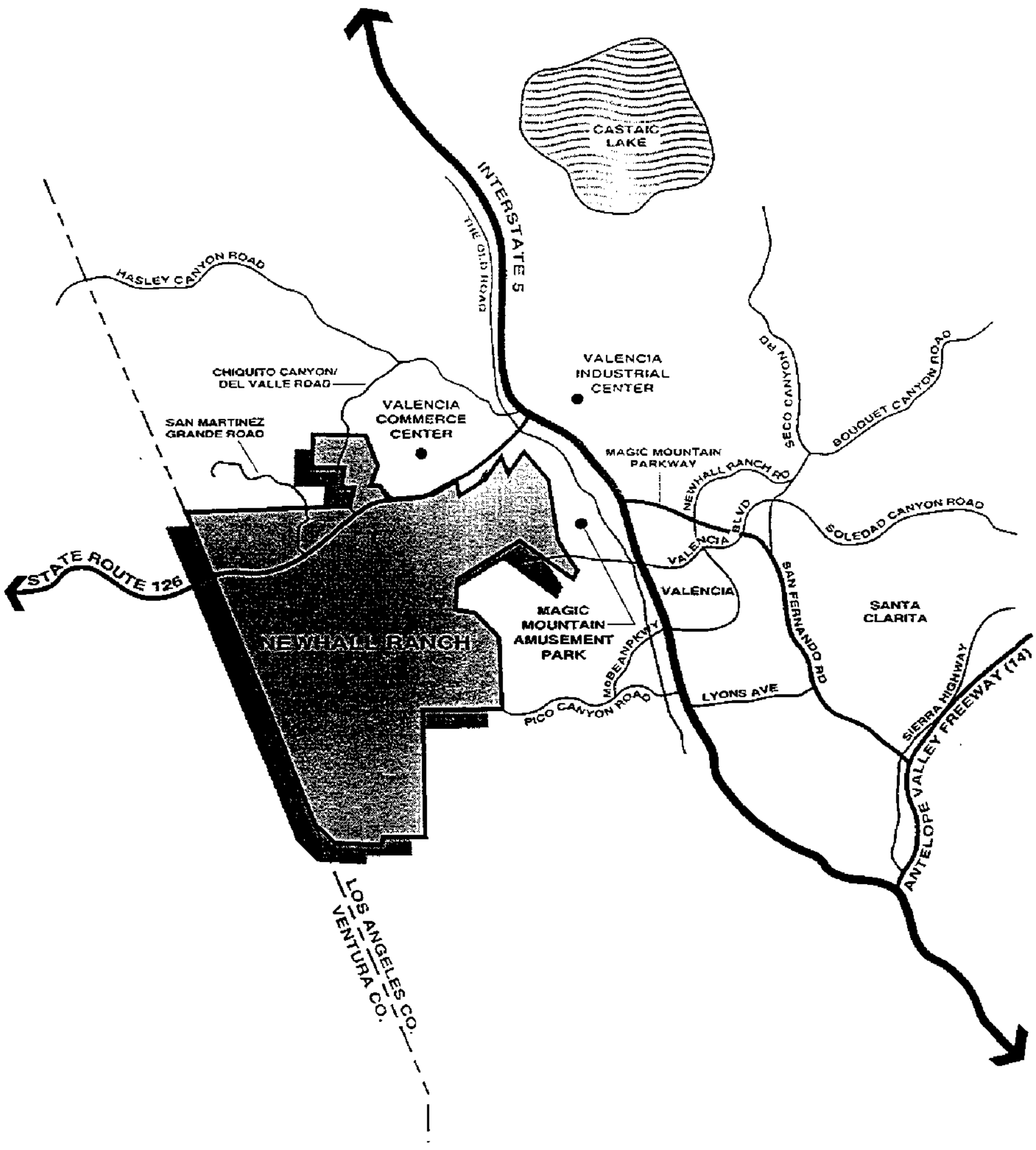
6. Are you planning future phases of this project? $\boxed{Y}$ ~~N~~ If yes explain: Project indicated above will be developed in phases under a Specific Plan.

7. Project Area: 11,958 acres
   Covered by structures, paving: Presently unknown Landscaping, open space: Presently unknown
   Total area: 11,958 acres

8. Number of Floors: N/A 9. Present zoning: A2-2 and A2-5

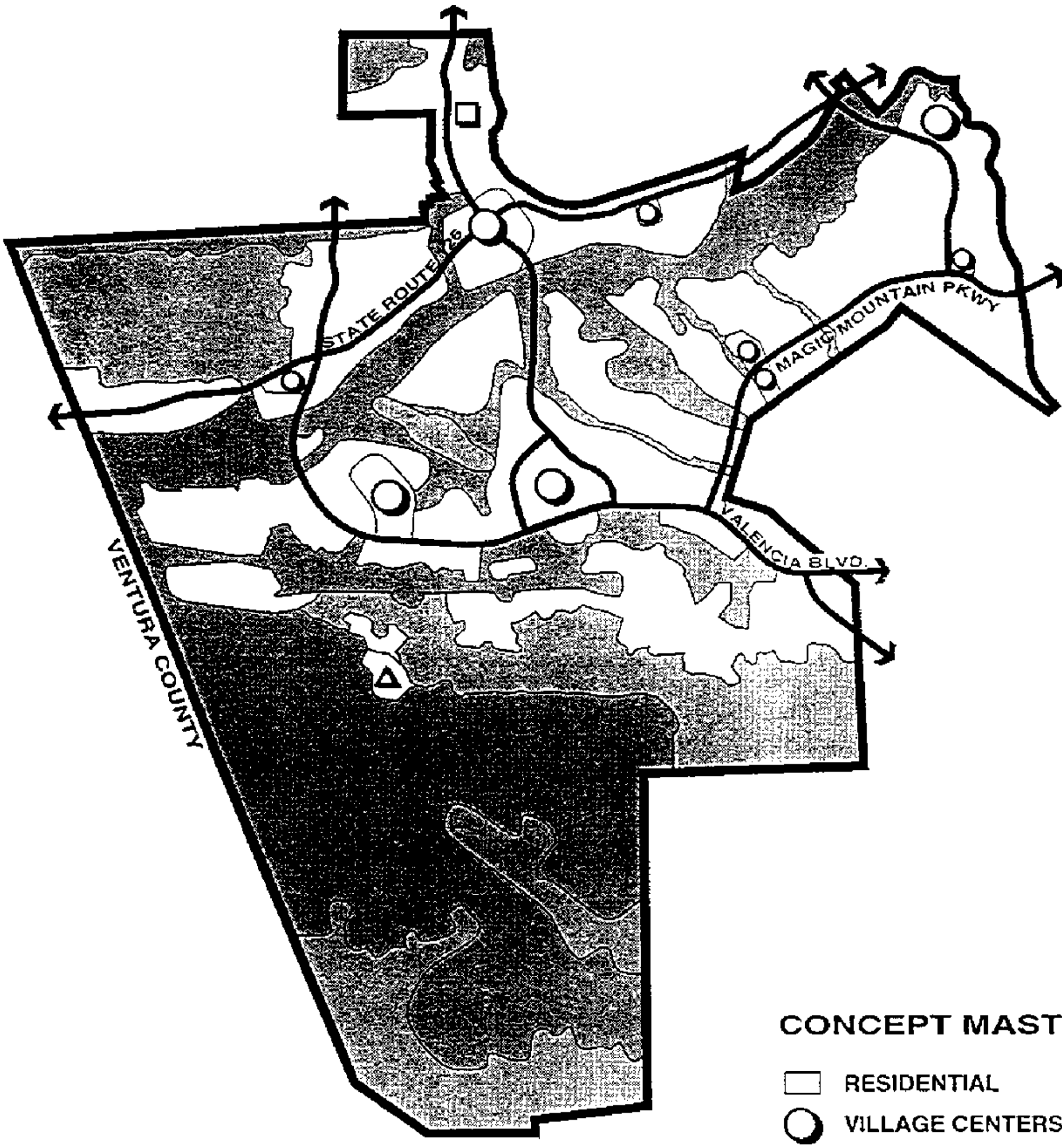
NEWHALL RANCH
LAND USE STATISTICS

Land Use Type	Gross Acres (Subtotals)	Total Gross Acres	Total Housing Units
Residential		5,335	22,330
Employment		790	2,370
- Mixed Use	490		
- Commercial	65		
- Business Park	200		
- Visitor Serving	35		
Open Areas		5,443	
- Parks	172		
- Golf Course	215		
- Other	5,138		
Major Roads/ Community Facilities		390	
Grand Total		11,958	24,700



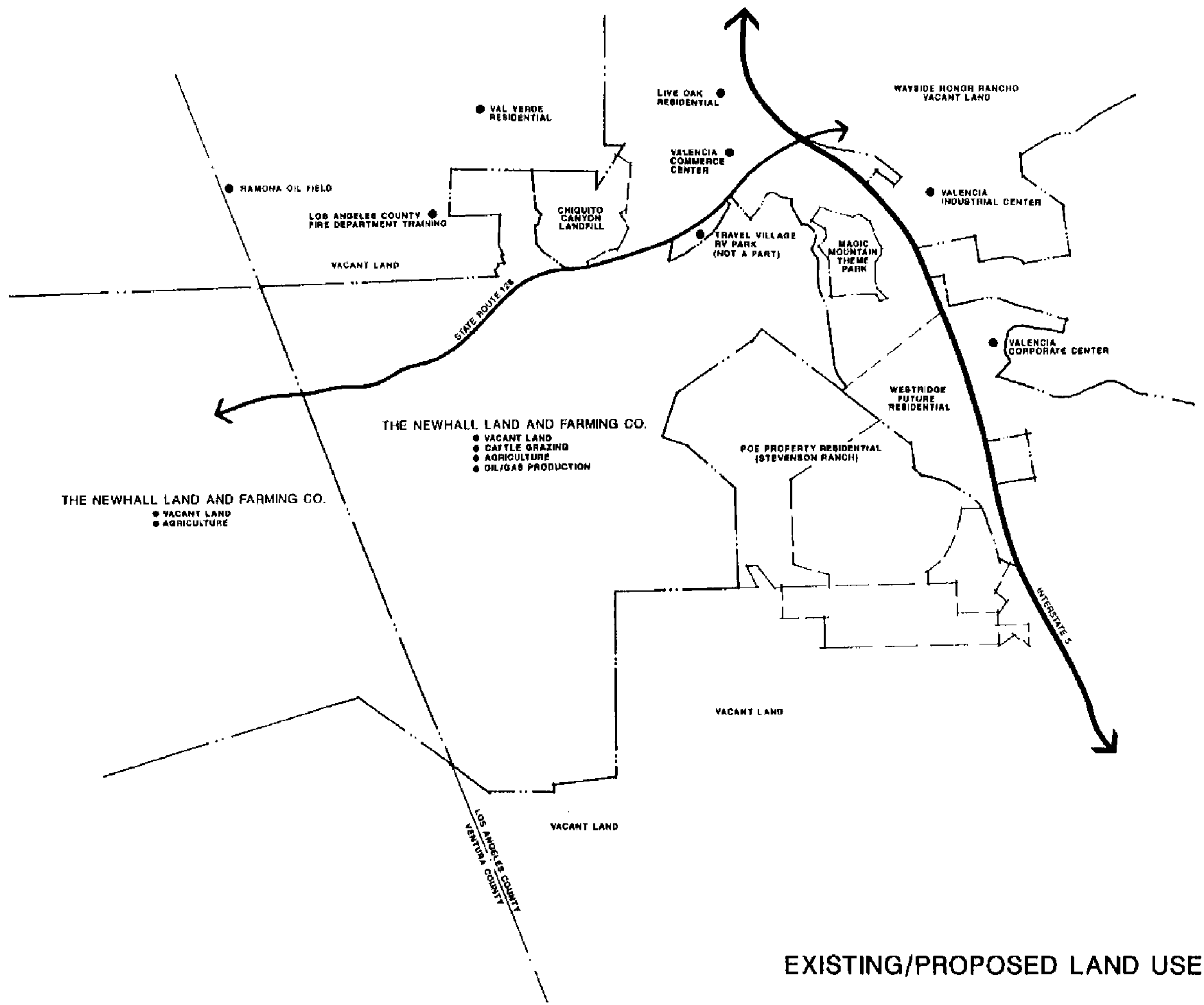
NEWHALL RANCH

VICINITY MAP



CONCEPT MASTER PLAN

- RESIDENTIAL
- VILLAGE CENTERS
- BUSINESS PARK
- VISITOR CENTER
- ESTATES/ OPEN AREAS
- PARKS, RECREATION & OPEN AREAS



EXISTING/PROPOSED LAND USES

10. Water and sewer service:

	Domestic Water	Public Sewers
Does service exist at the site?	~~Y~~ [N]	~~Y~~ [N]
If yes, do purveyors have capacity to meet demand of project and all other approved projects?	[Y] [N]	[Y] [N]

If domestic water or public sewers are not available, how will these services be provided? The project site is within Castaic Lake Water Agency and Valencia Water Company district boundaries. Water will be imported to the site via the Castaic Lake Water Agency and Valencia Water Company, as well as from groundwater withdrawal. Wastewater will be treated by a new treatment plant to be located on site. The treatment plant will be located within a new sanitation district which is being proposed as part of this project.

Residential Projects:

11. Number and type of units: 24,542 dwelling units, in a wide range of densities.

12. Schools:
What school district(s) serve the property? Wm. S. Hart Union High School District, Castaic Elementary School District, and Newhall Elementary School District.

Are existing school facilities adequate to meet project needs? ~~Y~~ [N]

If not, what provisions will be made for additional classrooms? Schools sites will be reserved within the Specific Plan area to accommodate projected student demands. Applicant will pay fees as required by State law and as further required by the Valley-wide Joint Fee Resolution.

Non-Residential Projects:

13. Distance to nearest residential use or sensitive use (school, hospital, etc.) Approximately 1/4 of a mile to the north of the site is the community of Val Verde. Approximately one mile to the northeast is Live Oak Elementary School and the Live Oak Community. Stevenson Ranch and other residential areas are approximately two miles to the east and south of the project site. Henry Mayo Newhall Hospital is approximately three miles east of the project site.

14. Number and floor area of buildings: Unknown at this time.

15. Number of employees and shifts: Unknown at this time.

16. Maximum employees per shift: N/A 17. Operating Hours: N/A

18. Identify any: End products: Unknown at this time.

Waste products: Other than typical commercial refuse, unknown at this time.

Means of disposal: Via truck to landfill.

19. Do project operations use, store, or produce hazardous substances such as oil, pesticides, chemicals, paints, or radioactive materials? [Y] ~~N~~ If yes, explain: Possibly as part of the commercial or business park uses.

20. Do your operations require any pressurized tanks? [Y] [N] If yes, explain: Maybe. Site would presumably contain gasoline stations and business park uses could possibly contain pressurized tanks.

21. Identify any flammable, reactive, or explosive materials to be located on-site: Oil and Natural Gas. Related tanks and pipelines exist onsite and may remain.

22. Will delivery or shipment trucks travel through residential areas to reach the nearest highway? Y [N] If yes, explain: ______________________________

B. ENVIRONMENTAL INFORMATION

1. **Environmental Setting -- Project Site**

   a. Existing use/structures: Oil and natural gas extraction operations including small support office structures, agricultural and cattle grazing operations including small support structures (e.g., ranch housing, small offices and storage), and vacant land.

   b. Topography/slopes: Varied, site elevations range from a low of approximately 825 feet above mean sea level to a high of approximately 3,200 above mean sea level. (See attached slope map)

   c.* Vegetation: Upland, riparian, and aquatic habitats exist on property.

   d.* Animals: Varied, including several species of amphibians, reptiles, birds, mammals and fish.

   e.* Watercourses: Santa Clara River, Salt Creek, Potrero Creek, Chiquito Creek, Long Canyon Creek, San Martinez Grande Creek, and other minor drainages.

   f. Cultural/historical resources: Both pre-historic Native American resources and historic resources.

   g. Other: Southern California Edison Company overhead electricity transmission distribution towers/lines, SR 126, and various water, oil and natural gas transmission pipelines.

2. **Environmental Setting -- Surrounding Area**

   a. Existing use/structures: Ventura County: Agriculture with supporting office/storage and housing, vacant land. Los Angeles County: Valencia Commerce Center, Chiquito Landfill, oil fields, residential, and County Fire Department training site are all north of SR 126. To east and south are Magic Mountain Theme Park and vacant land.

   b. Topography/slopes: Comparable to the project site ranging from relatively flat land in the Santa Clara River flood plain to slopes in excess of 50 percent in surrounding mountains.

   c.* Vegetation: Similar to project site in undeveloped areas.

   d.* Animals: Similar to project site in undeveloped areas.

   e.* Watercourses: Santa Clara River, Castaic Creek, and other minor water courses tributary to the Santa Clara River.

   f. Cultural/historical resources: Both pre-historic Native American resources and historic resources.

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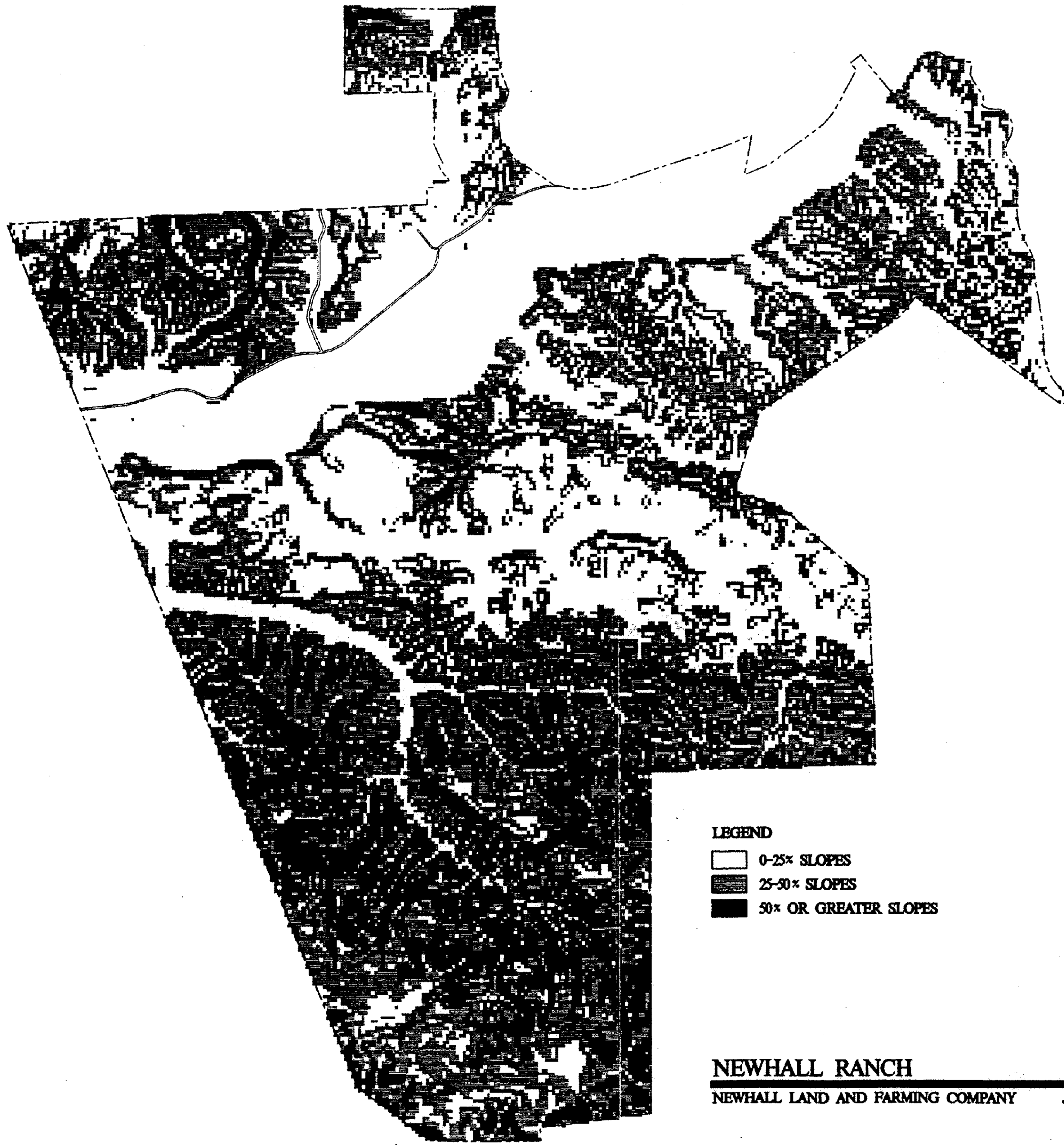
* Answers are not required if the area does not contain natural, undeveloped land.



NEWHALL RANCH

SLOPE ANALYSIS

NEWHALL LAND AND FARMING COMPANY

FORMA

g. Other: Southern California Edison Company overhead electricity transmission distribution towers/lines, Interstate 5, SR 126, and various water, oil and natural gas transmission pipelines.

3. Are there any major trees on the site, including oak trees? [Y] ~~N~~ If yes, type and number: Oak trees, willow trees, cottonwood trees, and various others. Numbers are unknown at this time.

4. Will any natural watercourses, surface flow patterns, etc., be changed through project development? [Y] ~~N~~
If yes, explain: Santa Clara River and major creeks will have natural bottom and vegetation with rip-rap bank stabilization as necessary for erosion control. Lesser watercourses may be modified for erosion control where necessary.

5. Grading
Will the project require grading? [Y] ~~N~~ If yes, how many cubic yards: Amount of grading required unknown at this time.

Will it be balanced on site? [Y] ~~N~~ If not balanced, how will it be deposited? ______________________

6. Are there any identifiable landslides or other major geologic hazards on the property (including uncompacted fill)? [Y] ~~N~~ If yes, explain: North/south trending Salt Creek Fault. Major and minor landslides in upland portions of site, with largest in area to remain undeveloped.

7. Is the property located within a high fire hazard area (hillsides with moderately dense vegetation)? [Y] ~~N~~
Distance to nearest fire station: 1/4 mile to Castaic Junction and approximately two miles to Pico Canyon.

8. Noise:
Existing noise sources at site: Vehicular traffic on SR 126, oil operations (wells and pumps) and agricultural operations (farm machinery).

Noise to be generated by project: Noises typical of urban land uses (e.g., automobile traffic, general human activity, etc.)

9. Fumes:
Odors generated by project: Possibly from proposed wastewater treatment plant, none known from other proposed land uses at this time.

Could toxic fumes be generated? Possibly from proposed wastewater treatment plant, none known from other proposed land uses at this time.

10. What energy-conserving designs or material will be used? At a minimum, those required by County and State governments. Project may incorporate other measures which are unknown at this time.

CERTIFICATION I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: June 17, 1994 Gloria Glem
(Signature)

For: The Newhall Land and Farming Company

APPENDIX L
Impact Summary Matrix

Appendix L
Sensitive Species Impacts Matrix, Newhall Ranch Project

Candidate Plant Observed, Listed Plants with Potential Occurrence

Species *Scientific Name* Common Name	*Calystegia peirsonii* Peirson's Morning-glory	*Dodecahema leptoceras* Slender-horned Spineflower	*Orcuttia californica* California Orcutt Grass	*Pentachaeta lyonii* Lyon's Pentachaeta
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Observed on site = Yes.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat not present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	Yes.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	Yes.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	No.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	No.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	No.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	Yes.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Berberis nevinii* Nevin's Barberry	*Hemizonia minthornii* Santa Susana Tarplant	*Astragalus brauntonii* Braunton's Milk-vetch	*Calochortus clavatus* var. *gracilis* Slender Mariposa Lily
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	If present = Yes.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	Yes.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	No.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	Not likely.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	Not likely.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	Not likely.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	None anticipated = No.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Calochortus plummerae* Plummer's Mariposa Lily	*Chorizanthe parryi* ssp. *fernandina* San Fernando Valley Spineflower	*Delphinium parryi* ssp. *blochmaniae* Dune Larkspur	*Dudleya blochmaniae* ssp. *blochmaniae* Blochman's Dudleya
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat not present; Not observed on site; Low occurrence potential = No.	Habitat not present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Dudleya multicaulis* Many-stemmed Dudleya	*Harpagonella palmeri* Palmer's Grapplinghook	*Lilium humboldtii* var. *ocellatum* Ocellated Humboldt Lily	*Opuntia basilaris* var. *brachyclada* Short-joint Beavertail Cactus
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Acanthomintha obovata* ssp. *cordata* Heart-leaved Thorn-mint	*Androsace elongata* ssp. *acuta* California Androsace	*Baccharis plummerae* ssp. *plummerae* Plummer's Baccharis	*Boykinia rotundifolia* Round-leaved Boykinia
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	If present = Yes.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	No.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	Not likely.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	Not likely.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	Not likely.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	No.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Calandrinia breweri* Brewer's Calandrinia	*Calochortus catalinae* Catalina Mariposa Lily	*Chorizanthe procumbens* Prostrate Spineflower	*Convolvulus simulans* Small-flowered Morning-glory
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat not present; Not observed on site; Low occurrence potential = No.	Habitat not present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Galium cliftonsmithii* Santa Barbara Bedstraw	*Juncus acutus* ssp. *leopoldii* Southwestern Spiny Rush	*Microseris douglasii* ssp. *platycarpha* Small-flowered Microseris	*Mucronea californica* California Spineflower
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Nemacladus gracilis* Slender Nemacladus	*Perideridia pringlei* Pringle's Yampah	*Gasterosteus aculeatus williamsoni* Unarmored Threespine Stickleback	*Vireo bellii pusillus* Least Bell's Vireo
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Marginal habitat present; Not observed on site; Low occurrence potential = No.	Habitat present only in Santa Clara River; Observed on site = Yes.	Habitat present along Santa Clara River; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	No direct loss of habitat = No.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	Impacts from runoff = Yes.	Yes.
Potential to eliminate species on-site?	N/A.	N/A.	Yes, due to indirect impacts.	No.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	Yes, due to indirect impacts.	No.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	Yes, due to indirect impacts.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	Yes, due to indirect impacts.	Yes.
Impact significant? (Yes/No)	N/A.	N/A.	Yes; Indirect impacts.	Yes.
Mitigation	N/A.	N/A.	NPDES permit conditions.	Riparian revegetation.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Empidonax traillii* Southwestern Willow Flycatcher	*Gila orcutti* Arroyo Chub	*Catostomus santaanae* Santa Ana Sucker	*Scaphiopus hammondii* Western Spadefoot Toad
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present along Santa Clara River; Observed on site as migrant = Yes.	Habitat present only in Santa Clara River; Observed on site = Yes.	Habitat present only in Santa Clara River; Observed on site = Yes.	Habitat present in and adjacent to ponds, and Santa Clara River and tributaries; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	No direct loss of habitat = No.	No direct loss of habitat = No.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No)	Yes.	N/A.	N/A.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Impacts from runoff = Yes.	Impacts from runoff = Yes.	Yes; Also impacts from runoff.
Potential to eliminate species on-site?	No.	Yes, due to indirect impacts.	Yes, due to indirect impacts.	No.
Potential to reduce population size below self sustaining levels?	No.	Yes, due to indirect impacts.	Yes, due to indirect impacts.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes, due to indirect impacts.	Yes, due to indirect impacts.	Yes.
Potential restriction of range of rare or endangered species?	Yes.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	Yes.	No.	No.	No.
Mitigation	Riparian revegetation.	NPDES permit conditions.	NPDES permit conditions.	Riparian revegetation, NPDES permit conditions.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Clemmys marmorata pallida* Southwestern Pond Turtle	*Cnemidophorus tigris multiscutatus* Coastal Western Whiptail	*Phrynosoma coronatum blainvillii* San Diego Horned Lizard	*Phrynosoma coronatum frontale* California Horned Lizard
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present in and adjacent to Santa Clara River and larger tributaries; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	Riparian revegetation, NPDES permit conditions.	N/A	N/A	N/A

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Thamnophis hammondii hammondii* Two-striped Garter Snake	*Aimophila ruficeps canescens* Southern California Rufous-crowned Sparrow	*Agelaius tricolor* Tricolored Blackbird	*Lepus californicus bennettii* San Diego Black-tailed Jackrabbit
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present in and adjacent to ponds, and Santa Clara River and tributaries; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present in and adjacent to ponds, and Santa Clara River and tributaries; Observed on site = Yes.	Habitat present; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes; Also impacts from runoff.	Yes.	Yes.	Yes.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	Riparian revegetation, NPDES permit conditions.	N/A	Riparian revegetation.	N/A

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Neotoma lepida intermedia* San Diego Desert Woodrat	*Elanus leucurus* White-tailed Kite	*Circus cyaneus* Northern Harrier	*Accipiter cooperii* Cooper's Hawk
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Observed on site = Yes.	Habitat present; Observed flying over site = Yes.	Habitat present; Observed flying over site = Yes.	Habitat present; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	N/A.	N/A.	N/A.	Riparian revegetation.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Pyrocephalus rubinus flammeus* Vermillion Flycatcher	*Eremophila alpestris* Horned Lark	*Lanius ludovicianus* Loggerhead Shrike	*Dendroica petechia brewsteri* Yellow Warbler
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present along Santa Clara River; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present along Santa Clara River; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	Riparian revegetation.	N/A.	N/A.	Riparian revegetation.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Icteria virens* Yellow-breasted Chat	*Piranga rubra rubra* Summer Tanager	*Felis concolor* Mountain Lion	*Ardea herodias herodias* Great Blue Heron
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present along Santa Clara River; Observed on site = Yes.	Habitat present along Santa Clara River; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present along Santa Clara River and tributaries; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	No.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	Riparian revegetation.	Riparian revegetation.	N/A.	Riparian revegetation.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Casmerodius albus* Great Egret	*Egretta thula thula* Snowy Egret	*Nycticorax nycticorax hoactli* Black-crowned Night Heron	*Pieris chloridice beckeri* Becker's White Butterfly
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present along Santa Clara River and tributaries; Observed on site = Yes.	Habitat present along Santa Clara River and tributaries; Observed on site = Yes.	Habitat present along Santa Clara River and tributaries; Observed on site = Yes.	Habitat present; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	Yes.	Yes.	Yes.	No.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	Riparian revegetation.	Riparian revegetation.	Riparian revegetation.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Colias alexandra harfordii* Harford's Sulfur Butterfly	*Argynnis callippe comstocki* Comstock's Fritillary	*Melitaea gabbii gabbii* Gabb's Checkerspot	*Liminitis lorquini lorquini* Lorquin's Admiral
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present along Santa Clara River and tributaries; Observed on site = Yes.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	No.	No.	Yes.	No.
Potential to eliminate species on-site?	No.	No.	No.	No.
Potential to reduce population size below self sustaining levels?	No.	No.	No.	No.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	Yes.	Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	N/A.	N/A.	N/A.	Riparian revegetation.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Lycaena arota nubila* Cloudy Copper	*Lycaena gorgon* Gorgon Copper	*Bufo microscaphus californicus* Arroyo Toad	*Gymnogyps californianus* California Condor
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Observed on site = Yes.	Habitat present; Observed on site = Yes.	Habitat present along Santa Clara River and tributaries; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	Direct loss of occupied or occupiable habitat = Yes.	Direct loss of occupied or occupiable habitat = Yes.	If present = Yes.	N/A.
Habitat loss substantial? (Yes/No.	Yes.	Yes.	Yes.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	No.	No.	If present = Yes.	N/A.
Potential to eliminate species on-site?	No.	No.	Not likely.	N/A.
Potential to reduce population size below self sustaining levels?	No.	No.	Not likely.	N/A.
Potential for substantial reduction in numbers of individuals?	Yes.	Yes.	If present = Yes.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	Not anticipated = No.	N/A.
Impact significant? (Yes/No)	No.	No.	None anticipated = No.	N/A.
Mitigation	N/A.	N/A.	Riparian revegetation.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Falco peregrinus anatum* American Peregrine Falcon	*Polioptila californica californica* Coastal California Gnatcatcher	*Coccyzus americanus occidentalis* Western Yellow-billed Cuckoo	*Rana aurora draytonii* California Red-legged Frog
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present along Santa Clara river; Not observed on site; Low occurrence potential = No.	Habitat present along Santa Clara River; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	No.	No.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Anniella pulchra pulchra* Silvery Legless Lizard	*Salvadora hexalepis virgultea* Coast Patch-nosed Snake	*Athene cunicularia hypugaea* Western Burrowing Owl	*Amphispiza belli belli* Bell's Sage Sparrow
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; High occurrence potential = Yes.	Habitat present; Not observed on site; Moderate to high occurrence potential = Yes.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.
Species impacted directly by habitat loss? (Yes/No)	If present = Yes.	If present = Yes.	If present = Yes.	If present = Yes.
Habitat loss substantial? (Yes/No)	Yes.	Yes.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	If present = Yes.	If present = Yes.	No.	If present = Yes.
Potential to eliminate species on-site?	Not likely.	Not likely.	Not likely.	Not likely.
Potential to reduce population size below self sustaining levels?	Not likely.	Not likely.	Not likely.	Not likely.
Potential for substantial reduction in numbers of individuals?	If present = Yes.	If present = Yes.	If present = Yes.	If present = Yes.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	No.	No.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Euderma maculatum* Spotted Bat	*Plecotus townsendii pallescens* Pale Townsend's Big-eared Bat	*Eumops perotis californicus* Greater Western Mastiff-bat	*Perognathus longimembris brevinasus* Los Angeles Little Pocket Mouse
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	If present = Yes.	If present = Yes.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	Yes.	Yes.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	No.	No.	N/A.
Potential to eliminate species on-site?	N/A.	Not likely.	Not likely.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	Not likely.	Not likely.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	Not likely.	Not likely.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	No.	No.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Accipiter striatus* Sharp-shinned Hawk	*Aquila chrysaetos* Golden Eagle	*Falco mexicanus* Prairie Falcon	*Taxidea taxus* American Badger
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present along Santa Clara River and tributaries; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.
Species impacted directly by habitat loss? (Yes/No)	If present = Yes.	If present = Yes.	N/A.	If present = Yes.
Habitat loss substantial? (Yes/No)	Yes.	Yes.	N/A.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	No.	If present = Yes.	N/A.	No.
Potential to eliminate species on-site?	Not likely.	Not likely.	N/A.	Not likely.
Potential to reduce population size below self sustaining levels?	Not likely.	Not likely.	N/A.	Not likely.
Potential for substantial reduction in numbers of individuals?	If present = Yes.	Not likely.	N/A.	Not likely.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	No.	No.	N/A.	No.
Mitigation	Riparian revegetation.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Papilio indra pergamus* Edward's Swallowtail	*Melitaea leanira wrightii* Wright's Leanira Checkerspot	*Satyrium sylvinum desertorum* Southern Sylvan Hairstreak	*Lycaena helloides* Purplish Copper
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Potential to eliminate species on-site?	N/A.	N/A.	N/A.	N/A.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	N/A.	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	N/A.	N/A.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	N/A.	N/A.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Glaucopsyche piasus sagittigera* Coastal Arrowhead Blue	*Copaeodes aurantica* Hewitson's Skipper	*Hesperia comma leussleri* Leussler's Skipper	*Hesperia colombia* Colombia Skipper
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Low occurrence potential = No.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.	Habitat present; Not observed on site; Moderate occurrence potential = Yes.
Species impacted directly by habitat loss? (Yes/No)	N/A.	N/A.	If present = Yes.	If present = Yes.
Habitat loss substantial? (Yes/No)	N/A.	N/A.	Yes.	Yes.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.	N/A.	No.	No.
Potential to eliminate species on-site?	N/A.	N/A.	Not likely.	Not likely.
Potential to reduce population size below self sustaining levels?	N/A.	N/A.	Not likely.	Not likely.
Potential for substantial reduction in numbers of individuals?	N/A.	N/A.	Not likely.	Not likely.
Potential restriction of range of rare or endangered species?	N/A.	N/A.	N/A.	N/A.
Impact significant? (Yes/No)	N/A.	N/A.	No.	No.
Mitigation	N/A.	N/A.	N/A.	N/A.

Appendix L (con't.)
Sensitive Species Impacts Matrix, Newhall Ranch Project

Species *Scientific Name* Common Name	*Pholisora catullus* Common Sootywing
Habitat present and species is reasonably expected to occur on-site? (Yes/No)	Habitat present; Not observed on site; Low occurrence potential = No.
Species impacted directly by habitat loss? (Yes/No)	N/A.
Habitat loss substantial? (Yes/No)	N/A.
Species impacted indirectly on adjacent lands by edge effects? (Yes/No)	N/A.
Potential to eliminate species on-site?	N/A.
Potential to reduce population size below self sustaining levels?	N/A.
Potential for substantial reduction in numbers of individuals?	N/A.
Potential restriction of range of rare or endangered species?	N/A.
Impact significant? (Yes/No)	N/A.
Mitigation	N/A.

APPENDIX M
Natural Diversity Data Base

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* ACCIPITER COOPERII *

* Coopers Hawk *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: None   Global: G4   CDFG: Special Concern *

* State: None   State: S3   Audubon: Blue List *

*   CNPS List: *

* ---Habitat Associations---   CNPS RED Code: *

* General: WOODLAND, CHIEFLY OF OPEN, INTERRUPTED OR MARGINAL TYPE. *

* Microhabitat: NEST SITES MAINLY IN RIPARIAN GROWTHS OF DECIDUOUS TREES, AS IN CANYON BOTTOMS ON RIVER FLOOD-PLAINS; ALSO, LIVE OAKS. *

*** Element ID: ABNKC12040 *

Occurrence Number: 43   --Dates Last Seen--

Quality: Unknown   Element: 1979/XX/XX

Type: Natural/Native occurrence   Site: 1979/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: WEBSTER, R. 1980 (PERS)

Quad Summary: Val Verde (3411846)

County(ies): Ventura

Location: SANTA CLARA RIVER, 3-4 MI E PIRU.

Lat/Long: 34d 24m 20s / 118d 43m 14s   Township: 04N

UTM: Zone-11 N3808266 E341847   Range: 18W

Mapping Precision: NON-SPECIFIC (1 Mile)   Section: UN XX Qtr

Symbol Type: POINT   Meridian: S

Group Number: 00654   More Information? N   Acres: 0

Map Index Number: 00654   More Map Detail? Y   Elevation: 750 ft

Threats:

Comments: General Notes - PAIR OBSERVED IN 1979 BY WEBSTER. NESTING ACTIVITY UNKNOWN.

Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* COCCYZUS AMERICANUS OCCIDENTALIS *

* Western Yellow Billed Cuckoo *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: None Global: G5T2T3 CDFG: *

* State: Endangered State: S1 Audubon: Blue List *

* CNPS List: *

* ---Habitat Associations--- CNPS RED Code: *

* General: RIPARIAN FOREST NESTER, ALONG THE BROAD, LOWER FLOOD-BOTTOMS OF LARGER RIVER SYSTEMS. *

* Microhabitat: NESTS IN RIPARIAN JUNGLES OF WILLOW, OFTEN MIXED WITH COTTONWOODS, W/ LOWER STORY OF BLACKBERRY, NETTLES, OR WILD GRAPE. *

*** Element ID: ABNRB02022 *

Occurrence Number: 130 --Dates Last Seen--

Quality: Unknown Element: 1979/07/04

Type: Natural/Native occurrence Site: 1979/07/04

Presence: Presumed Extant

Trend: Unknown

Main Info Source: WEBSTER, R. 1980 (PERS)

Quad Summary: Val Verde (3411846)

County(ies): Ventura

Location: SANTA CLARA RIVER 3-4 MI E PIRU.

Lat/Long: 34d 24m 20s / 118d 43m 14s Township: 04N

UTM: Zone-11 N3808266 E341847 Range: 18W

Mapping Precision: NON-SPECIFIC (1 Mile) Section: UN XX Qtr

Symbol Type: POINT Meridian: S

Group Number: 00654 More Information? N Acres: 0

Map Index Number: 00654 More Map Detail? Y Elevation: 750 ft

Threats:

Comments: General Notes - ONE CUCKOO OBSERVED BY WEBSTER FROM 23 JUN TO 4 JUL, 1979.

Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* ATHENE CUNICULARIA *

* Burrowing Owl *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: None   Global: G4   CDFG: Special Concern *

* State: None   State: S2   Audubon: Special Concern *

*   CNPS List: *

* ---Habitat Associations---   CNPS RED Code: *

*General: FOUND IN OPEN, DRY ANNUAL OR PERENIAL GRASSLANDS, DESERTS & SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION. *

* Microhabitat: SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL. *

*** Element ID: ABNSB10010 *

Occurrence Number: 85   --Dates Last Seen--

Quality: Fair   Element: 1990/03/27

Type: Natural/Native occurrence   Site: 1990/03/27

Presence: Presumed Extant

Trend: Stable

Main Info Source: WISHNER, C. 1990 (OBS)

Quad Summary: Santa Susana (3411836)

County(ies): Ventura

Location: UPPER DRY CANYON, APPROX 2 MI N OF SIMI VALLEY, S OF BIG MOUNTAIN.

Lat/Long: 34d 18m 48s / 118d 44m 06s   Township: 03N

UTM: Zone-11 N3798077 E340354   Range: 18W

Mapping Precision: NON-SPECIFIC (0 Mile)   Section: 26 SW Qtr

Symbol Type: POLYGON   Meridian: S

Group Number: More Information? N   Acres: 512.6

Map Index Number: 17045   More Map Detail? N Elevation: 1300 ft

Threats: OVERGRAZED RANGELAND. PROPOSED GOLF COURSE. HELICOPTER FLIGHT SCHOOL TEST AREA.

Comments: Ecological Notes - ANNUAL GRASSLAND WITH SPARSE COASTAL SAGE SCRUB; DIVERSE TOPOGRAPHY. ABUNDANT GROUND SQUIRREL BURROWS AVAILABLE.

General Notes - OBSERVED IN LOW SLOPES AT THE BASE OF BIG MOUNTAIN. AREA IS VERY SCENIC; USED AS A MOVIE SET AND AS A BACKDROP.

Owner/Manager - PVT-MARUFUJI AMERICA

** California Department of Fish and Game ***** Natural Diversity Data Base **
*   *
* VIREO BELLII PUSILLUS   *
* Least Bells Vireo   *
* ---------Status---------- NDDB Element Ranks ---------Other Lists--------- *
* Federal: Endangered   Global: G5T2   CDFG: *
* State: Endangered   State: S2   Audubon: Special Concern *
*   CNPS List: *
* ---Habitat Associations---   CNPS RED Code: *
* General: SUMMER RESIDENT OF S CALIFORNIA. INHABITS LOW RIPARIAN GROWTH IN VIC OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT. *
* Microhabitat: NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE. *
*** Element ID: ABPBW01114 *
Occurrence Number: 42   --Dates Last Seen--
Quality: Unknown   Element: 1980/07/XX
Type: Natural/Native occurrence   Site: 1980/07/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: WEBSTER R. E. 1980 (PERS)
Quad Summary: Val Verde (3411846)
County(ies): Ventura
Location: SANTA CLARA RIVER, 3-4 MI E PIRU.
Lat/Long: 34d 24m 20s / 118d 43m 14s   Township: 04N
UTM: Zone-11 N3808266 E341847   Range: 18W
Mapping Precision: NON-SPECIFIC (1 Mile)   Section: UN XX Qtr
Symbol Type: POINT   Meridian: S
Group Number: 00654   More Information? N   Acres: 0
Map Index Number: 00654   More Map Detail? N   Elevation: 750 ft
Threats: COWBIRDS OBSERVED IN THE AREA.
Comments: Distribution Notes - HABITAT IS ONE OF THE LAST REMNANTS OF RIPARIAN VEGETATION IN THE AREA.
Ecological Notes - HABITAT IS THICK RIPARIAN VEGETATION ON THE SOUTH BANK OF THE SANTA CLARA RIVER, WHICH SUPPORTS A WIDE VARIETY OF BREEDING BIRD SPECIES.
General Notes - 11 SINGING BELL'S VIREOS HEARD IN 1979.
Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* VIREO BELLII PUSILLUS *

* Least Bells Vireo *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Endangered Global: G5T2 CDFG: *

* State: Endangered State: S2 Audubon: Special Concern *

* CNPS List: *

* ---Habitat Associations--- CNPS RED Code: *

* General: SUMMER RESIDENT OF S CALIFORNIA. INHABITS LOW RIPARIAN GROWTH IN VIC OF WATER OR IN DRY RIVER BOTTOMS; BELOW 2000 FT. *

* Microhabitat: NESTS PLACED ALONG MARGINS OF BUSHES OR ON TWIGS PROJECTING INTO PATHWAYS, USUALLY WILLOW, BACCHARIS, MESQUITE. *

*** Element ID: ABPBW01114 *

Occurrence Number: 149 --Dates Last Seen--

Quality: Fair Element: 1988/06/18

Type: Natural/Native occurrence Site: 1988/06/18

Presence: Presumed Extant

Trend: Unknown

Main Info Source: SULLY, J. 1988 (OBS)

Quad Summary: Newhall (3411845)

County(ies): Los Angeles

Location: 0.6 MI SECTION OF CASTAIC CREEK, FROM 0.1 MI NE OF GAGING STATION, CONTINUING NE, TO 0.75 MI SW NEWHALL RANCH.

Lat/Long: 34d 25m 55s / 118d 37m 20s Township: 04N

UTM: Zone-11 N3811057 E350931 Range: 17W

Mapping Precision: NON-SPECIFIC (0 Mile) Section: UN XX Qtr

Symbol Type: POLYGON Meridian: S

Group Number: More Information? N Acres: 161

Map Index Number: 20308 More Map Detail? N Elevation: 1000 ft

Threats: THREATENED BY DEVELOPMENT, OFF-ROAD VEHICLES, OTHER RECREATIONAL USES, THE PRESENCE OF COWBIRDS.

Comments: Ecological Notes - SOUTHERN WILLOW SCRUB; DOMINANTS: WILLOW, COTTONWOOD, SYCAMORE

General Notes - 3-4 SINGING INDIVIDUALS (MALES?) OBS JUNE 14 AND 18, 1988 ALONG CREEK

Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* DENDROICA PETECHIA BREWSTERI *
* Yellow Warbler *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: None Global: G5T3? CDFG: Special Concern *
* State: None State: S2 Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: Not available at this time. *
* Microhabitat: Not available at this time. *
*** Element ID: ABPBX03018 *

Occurrence Number: 63 --Dates Last Seen--
Quality: Unknown Element: 1979/XX/XX
Type: Natural/Native occurrence Site: 1979/XX/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: WEBSTER, R. 1980 (PERS)
Quad Summary: Val Verde (3411846)
County(ies): Ventura
Location: SANTA CLARA RIVER, 3-4 MI E OF PIRU.
Lat/Long: 34d 24m 20s / 118d 43m 14s Township: 04N
UTM: Zone-11 N3808266 E341847 Range: 18W
Mapping Precision: NON-SPECIFIC (1 Mile) Section: UN XX Qtr
Symbol Type: POINT Meridian: S
Group Number: 00654 More Information? N Acres: 0
Map Index Number: 00654 More Map Detail? Y Elevation: 750 ft
Threats:
Comments: Distribution Notes - ONE YELLOW WARBLER OBS. Ecological Notes
- PARCEL OF THICK RIPARIAN VEG ON SOUTH BANK OF THE RIVER.
Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* ICTERIA VIRENS *

* Yellow Breasted Chat *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* *Federal: None* *Global: G5* *CDFG: Special Concern* *

* State: None State: S3 Audubon: *

* CNPS List: *

* ---Habitat Associations--- CNPS RED Code: *

* General: SUMMER RESIDENT; INHABITS RIPARIAN THICKETS OF WILLOW AND OTHER BRUSHY TANGLES NEAR WATERCOURSES. *

* Microhabitat: NESTS IN LOW, DENSE RIPARIAN, CONSISTING OF WILLOW, BLACKBERRY, WILD GRAPE; FORAGE AND NEST W/IN 10 FT OF GROUND. *

*** Element ID: ABPBX24010 *

Occurrence Number: 43 --Dates Last Seen--

Quality: Unknown Element: 1979/XX/XX

Type: Natural/Native occurrence Site: 1979/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: WEBSTER, R. 1980 (PERS)

Quad Summary: Val Verde (3411846)

County(ies): Ventura

Location: SANTA CLARA RIVER, 3-4 MI E PIRU.

Lat/Long: 34d 24m 20s / 118d 43m 14s Township: 04N

UTM: Zone-11 N3808266 E341847 Range: 18W

Mapping Precision: NON-SPECIFIC (1 Mile) Section: UN XX Qtr

Symbol Type: POINT Meridian: S

Group Number: 00654 More Information? N Acres: 0

Map Index Number: 00654 More Map Detail? Y Elevation: 750 ft

Threats:

Comments: Distribution Notes - THREE YELLOW-BREATED CHATS OBS IN A PARCEL OF THICK RIPARIAN VEG ON SOUTH BANK OF THE RIVER.

Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* CATOSTOMUS SANTAANAE *

* *Santa Ana Sucker* *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G1G2 CDFG: Special Concern *

* State: None State: S1S2 Audubon: *

* CNPS List: *

* ---Habitat Associations--- CNPS RED Code: *

* General: ENDEMIC TO LOS ANGELES BASIN SOUTH COASTAL STREAMS. *

* Microhabitat: HABITAT GENERALISTS, BUT PREFER SAND-RUBBLE-BOULDER BOTTOMS, CLEAR WATER, & ALGAE. *

*** Element ID: AFCJC02190 *

Occurrence Number: 6 --Dates Last Seen--

Quality: Unknown Element: 1975/07/12

Type: Natural/Native occurrence Site: 1975/07/12

Presence: Presumed Extant

Trend: Unknown

Main Info Source: WELLS & DIANA, 1975 (LIT)

Quad Summary: Val Verde (3411846), Newhall (3411845)

County(ies): Los Angeles

Location: HASLEY CYN. 3.2 KM E OF VAL VERDE. SANTA CLARA RIV DRAINAGE.

Lat/Long: 34d 26m 55s / 118d 37m 38s Township: 04N

UTM: Zone-11 N3812903 E350513 Range: 17W

Mapping Precision: NON-SPECIFIC (1 Mile) Section: 11 NW Qtr

Symbol Type: POINT Meridian: S

Group Number: 00850 More Information? N Acres: 0

Map Index Number: 00850 More Map Detail? N Elevation: 1100 ft

Threats:

Comments: Ecological Notes - ONE TAKEN. BANK PLANTS ARE WILLOW, SALT CEDAR & COTTONWOOD. Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
*   *
* CATOSTOMUS SANTAANAE *
* Santa Ana Sucker *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2   Global: G1G2   CDFG: Special Concern *
* State: None   State: S1S2   Audubon: *
*   CNPS List: *
* ---Habitat Associations---   CNPS RED Code: *
* General: ENDEMIC TO LOS ANGELES BASIN SOUTH COASTAL STREAMS. *
* Microhabitat: HABITAT GENERALISTS, BUT PREFER SAND-RUBBLE-BOULDER BOTTOMS, CLEAR WATER, & ALGAE. *
*** Element ID: AFCJC02190 *

Occurrence Number: 9   --Dates Last Seen--
Quality: Unknown   Element: 1983/XX/XX
Type: Natural/Native occurrence   Site: 1983/XX/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: WELLS & DIANA, 1975 (LIT)
Quad Summary: Piru (3411847), Santa Paula (3411931), Moorpark (3411838), Fillmore (3411848), Val Verde (3411846), Newhall (3411845)
County(ies): Los Angeles, Ventura
Location: SANTA CLARA RIVER DRAINAGE FROM SAN FRANCISQUITO CYN TO VICINITY OF SANTA PAULA.
Lat/Long: 34d 22m 10s / 118d 59m 08s   Township: 04N
UTM: Zone-11 N3804717 E317423   Range: 18W
Mapping Precision: SPECIFIC (0 Mile)   Section: UN XX Qtr
Symbol Type: POLYGON   Meridian: S
Group Number: 00497   More Information? N   Acres: 3054.2
Map Index Number: 00497   More Map Detail? N   Elevation: 1055 ft
Threats:
Comments: Ecological Notes - AT STA 4, 14 WERE TAKEN. AT STA 5, 3 TAKEN. HYBRIDIZES W/ OWENS SUCKER IN LOWER PARTS OF DRAINAGE (S OF FILMORE). 18 TAKEN FROM SESPE CR, 1975. INCL S HALF PIRU CREEK.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* CATOSTOMUS SANTAANAE *
* Santa Ana Sucker *
* ---------Status--------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G1G2 CDFG: Special Concern *
* State: None State: S1S2 Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: ENDEMIC TO LOS ANGELES BASIN SOUTH COASTAL STREAMS. *
* Microhabitat: *HABITAT GENERALISTS, BUT PREFER SAND-RUBBLE-BOULDER BOTTOMS, CLEAR WATER, & ALGAE.* *
*** Element ID: AFCJC02190 *
Occurrence Number: 12 --Dates Last Seen--
Quality: Unknown Element: 1975/07/11
Type: Natural/Native occurrence Site: 1975/07/11
Presence: Presumed Extant
Trend: Unknown
Main Info Source: WELLS & DIANA 1975 (LIT)
Quad Summary: Piru (3411847), Val Verde (3411846), Cobblestone Mtn. (3411857)
County(ies): Ventura
Location: *N PART PIRU CREEK, N OF & INCL PIRU LAKE; S OF ELLIS APIARY CAMPGROUND.*
Lat/Long: 34d 28m 60s / 118d 45m 18s Township: 03N
UTM: Zone-11 N3816947 E338832 Range: 18W
Mapping Precision: SPECIFIC (0 Mile) Section: 15 SW Qtr
Symbol Type: POLYGON Meridian: S
Group Number: 00563 More Information? N Acres: 1447.3
Map Index Number: 00563 More Map Detail? Y Elevation: 1100 ft
Threats:
Comments: General Notes - 19 TAKEN IN 1975.
Owner/Manager - USFS-LOS PADRES & ANGELES NF

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* GASTEROSTEUS ACULEATUS WILLIAMSONI *
* Unarmored Threespine Stickleback *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Endangered Global: G5T1 CDFG: *
* State: Endangered State: S1.2 Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: WEEDY POOLS, BACKWATERS, AND AMONG EMERGENT VEGETATION AT THE STREAM EDGE IN SMALL SOUTHERN CALIFORNIA STREAMS. *
* Microhabitat: COOL (<24 C), CLEAR WATER WITH ABUNDANT VEGETATION. *
*** Element ID: AFCPA03011 *

Occurrence Number: 3 --Dates Last Seen--
Quality: Unknown Element: 1987/XX/XX
Type: Natural/Native occurrence Site: 1987/XX/XX
Presence: Presumed Extant
Trend: Unknown

Main Info Source: U.S. FISH & WILDLIFE SERV 1977 (PUBL)
Quad Summary: Val Verde (3411846), Newhall (3411845)
County(ies): Los Angeles
Location: SANTA CLARA RIVER, LOS ANGELES CO.
Lat/Long: 34d 25m 10s / 118d 37m 41s Township: 04N
UTM: Zone-11 N3809679 E350375 Range: 17W
Mapping Precision: NON-SPECIFIC (0 Mile) Section: UN XX Qtr
Symbol Type: POLYGON Meridian: S
Group Number: 00854 More Information? N Acres: 399.1
Map Index Number: 00854 More Map Detail? N Elevation: 950 ft

Threats: AFRICAN CLAWED FROGS.
Comments: Distribution Notes - FROM JUCTION WITH SAN MARTINEZ GRANDE CANYON UPSTREAM TO I-5 CROSSING.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* CLEMMYS MARMORATA PALLIDA *

* Southwestern Pond Turtle *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 1 Global: G4T2T3 CDFG: Special Concern *

* State: None State: S2 Audubon: *

* CNPS List: *

* ---Habitat Associations--- CNPS RED Code: *

* General: INHABITS PERMANENT OR NEARLY PERMANENT BODIES OF WATER IN MANY HABITAT TYPES; BELOW 6000 FT ELEV. *

* Microhabitat: REQUIRE BASKING SITES SUCH AS PARTIALLY SUBMERGED LOGS, VEGETATION MATS, OR OPEN MUD BANKS. *

*** Element ID: ARAAD02032 *

Occurrence Number: 65 --Dates Last Seen--

Quality: Unknown Element: 1987/XX/XX

Type: Natural/Native occurrence Site: 1987/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: BRATTSTROM AND MESSER, 1988 (LIT)

Quad Summary: Piru (3411847), Val Verde (3411846)

County(ies): Ventura

* SENSITIVE *

Location: Locational Information Supressed - Call Local California Department of Fish and Game Office for Details

Lat/Long: Township:

UTM: Range:

Mapping Precision: Section: Qtr

Symbol Type: Meridian:

Group Number: More Information? Acres: 0

Map Index Number: More Map Detail? Elevation:

Threats:

Comments: Locational Information Supressed - Call Local California Department of Fish and Game Office for Details

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* PHRYNOSOMA CORONATUM BLAINVILLEI *
* San Diego Horned Lizard *
* *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G4T3 CDFG: Special Concern *
* State: None State: S2 Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: INHABITS COASTAL SAGE SCRUB AND CHAPARRAL IN ARID AND SEMI-ARID CLIMATE CONDIT. *
* Microhabitat: PREFERS FRIABLE, ROCKY, OR SHALLOW SANDY SOILS. *
*** Element ID: ARACF12021 *
Occurrence Number: 145 --Dates Last Seen--
Quality: Unknown Element: 1934/05/XX
Type: Natural/Native occurrence Site: 1934/05/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: BRODE, J. 1986 (PERS)
Quad Summary: Newhall (3411845)
County(ies): Los Angeles
Location: SAUGUS, SOUTH OF SOLEDAD CANYON.
Lat/Long: 34d 24m 37s / 118d 32m 34s Township: 04N
UTM: Zone-11 N3808531 E358206 Range: 16W
Mapping Precision: NON-SPECIFIC (1 Mile) Section: UN XX Qtr
Symbol Type: POINT Meridian: S
Group Number: 01087 More Information? N Acres: 0
Map Index Number: 01087 More Map Detail? N Elevation: 1180 ft
Threats:
Comments: General Notes - LACM SPECIMEN #19853. Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* PHRYNOSOMA CORONATUM BLAINVILLEI *
* San Diego Horned Lizard *
* *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G4T3 CDFG: Special Concern *
* State: None State: S2 Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: INHABITS COASTAL SAGE SCRUB AND CHAPARRAL IN ARID AND SEMI-ARID CLIMATE CONDIT. *
* Microhabitat: PREFERS FRIABLE, ROCKY, OR SHALLOW SANDY SOILS. *
*** Element ID: ARACF12021 *
Occurrence Number: 203 --Dates Last Seen--
Quality: Unknown Element: 1947/05/31
Type: Natural/Native occurrence Site: 1947/05/31
Presence: Presumed Extant
Trend: Unknown
Main Info Source: BRODE, J. 1986 (PERS)
Quad Summary: Oat Mountain (3411835), Santa Susana (3411836)
County(ies): Los Angeles
Location: S DEVIL CANYON, SANTA SUSANA MTNS, 5 MI W OF GRANADA HILLS.
Lat/Long: 34d 17m 13s / 118d 36m 38s Township: 02N
UTM: Zone-11 N3794954 E351766 Range: 17W
Mapping Precision: NON-SPECIFIC (1 Mile) Section: 01 NE Qtr
Symbol Type: POINT Meridian: S
Group Number: 00880 More Information? N Acres: 0
Map Index Number: 00880 More Map Detail? N Elevation: 1450 ft
Threats:
Comments: General Notes - LACM SPECIMEN #19883.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* SOUTHERN CALIFORNIA THREESPINE STICKLEBACK STREAM *
* Southern California Threespine Stickleback *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: None Global: CDFG: *
* State: None State: Audubon: *
* CNPS List: *
* ---Habitat Associations--- CNPS RED Code: *
* General: Not available at this time. *
* Microhabitat: Not available at this time. *
*** Element ID: CARE2320CA *

Occurrence Number: 4 --Dates Last Seen--
Quality: Unknown Element: 1987/XX/XX
Type: Natural/Native occurrence Site: 1987/XX/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: MOYLE, PETER 1991 (LIT)
Quad Summary: Val Verde (3411846), Newhall (3411845)
County(ies): Los Angeles
Location: SANTA CLARA RIVER, DOWNSTREAM OF INTERSTATE HWY 5, LOS ANGELES COUNTY.
Lat/Long: 34d 25m 10s / 118d 37m 41s Township: 04N
UTM: Zone-11 N3809679 E350375 Range: 17W
Mapping Precision: NON-SPECIFIC (0 Mile) Section: UN XX Qtr
Symbol Type: POLYGON Meridian: S
Group Number: More Information? Y Acres: 399.1
Map Index Number: 00854 More Map Detail? N Elevation: 950 ft
Threats: PREDATION BY AFRICAN CLAWED FROGS & OTHER INTRODUCED FISH, STREAM CHANNELIZATION ALLOWS INTRODUCED FISH TO MIGRATE.
Comments: Distribution Notes - FROM CONFLUENCE OF SAN MARTINEZ GRANDE CYN. CREEK UPSTREAM TO THE I-5 BRIDGE CROSSING.
Owner/Manager - PVT

California NDDB RareFind Report RECON
Date of Report: 07/01/95

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* HEMIZONIA MINTHORNII *Santa Susana Tarplant* *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: *

* State: Rare State: S2.1 Audubon: *

*CNPS List: 1B --- CNPS RED Code: 2-2-3

--Habitat Associations--

General: CHAPARRAL, COASTAL SCRUB

* Microhabitat: ROCK OUTCROPS *

Element ID: PDAST4R0J0

Occurrence Number: 1 --Dates Last Seen--

Quality: Good Element: 1989/07/07

Type: Natural/Native occurrence Site: 1989/07/07

Presence: Presumed Extant

Trend: Decreasing

Main Info Source: BITTMAN & COCHRANE 1987 (OBS)

Quad Summary: Santa Susana (3411836)

County(ies): Los Angeles, Ventura

Location: JUST E OF SIMI VALLEY, S OF BLIND CANYON. INCLUDES ROCKY PEAK, HUMMINGBIRD RANCH, & AREA SOUTH TO SANTA SUSANA PASS.

Lat/Long: 34d 16m 51s / 118d 38m 45s Township: 02N

UTM: Zone-11 N3794321 E348496 Range: 17W

Mapping Precision: SPECIFIC (0 Mile) Section: UN XX Qtr

Symbol Type: POLYGON Meridian: S

Group Number: 00820 More Information? N Acres: 3223.4

Map Index Number: 00820 More Map Detail? N Elevation: 2000 ft

Threats: RECREATIONAL IMPACTS AND GRAZING THREATEN. PART OF OCCURRENCE EXTIRPATED ACCORDING TO SULLY (1984).

Comments: Distribution Notes - EXTENDS INTO LOS ANGELES COUNTY. ALSO IN T3N.

Ecological Notes - ON SANDSTONE OUTCROPS AND IN NONNATIVE GRASSLAND, OFTEN IN SEMI-SHADED WEST EXPOSURES. ASSOCIATED WITH SALVIA MELLIFERA, ERIOGONUM FASCICULATUM, ARTEMISIA CALIFORNICA, CERCOCARPUS BETULOIDES, BROMUS DIANDRUS.

General Notes - SOUTHEAST PORTION OF OCCURRENCE SEEN IN 1987; UNKNOWN WHEN LARGE AREA TO THE WEST AND NORTH SEEN BY KUHN. 200 PLANTS SEEN IN E PORTION BY JONS AND BOWLAND IN 1989. INCLUDES FORMER OCCURRENCES 2 AND 10.

Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* *HEMIZONIA MINTHORNII* *Santa Susana Tarplant* *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: State: Rare

State: S2.1 Audubon: *

*CNPS List: 1B CNPS RED Code: 2-2-3 *

* ---Habitat Associations--- *

* General: CHAPARRAL, COASTAL SCRUB *

* Microhabitat: ROCK OUTCROPS *

*** Element ID: PDAST4R0J0 *

Occurrence Number: 3 --Dates Last Seen--

Quality: Unknown Element: 1987/XX/XX

Type: Natural/Native occurrence Site: 1987/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: HOLDEN, P.A. #615A OBI (HERB)

Quad Summary: Oat Mountain (3411835)

County(ies): Los Angeles

Location: ALONG OLD HWY 118, SANTA SUSANA MTS ABOUT 1.0 MI E OF CO. LINE, W OF TOPANGA CYN BLVD.

Lat/Long: 34d 16m 33s / 118d 36m 53s Township: 02N

UTM: Zone-11 N3793724 E351356 Range: 17W

Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: UN XX Qtr

Symbol Type: POINT Meridian: S

Group Number: 00867 More Information? N Acres: 0

Map Index Number: 00867 More Map Detail? N Elevation: 1250 ft

Threats:

Comments: Ecological Notes - "GROWING IN FULL SUN AND OPEN."

Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* HEMIZONIA MINTHORNII * Santa Susana Tarplant *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G2 CDFG: State: Rare
State: S2.1 Audubon: *
CNPS List: 1B CNPS RED Code: 2-2-3 *
* ---Habitat Associations--- *
* General: CHAPARRAL, COASTAL SCRUB *
* Microhabitat: ROCK OUTCROPS *
*** Element ID: PDAST4R0J0 *
Occurrence Number: 5 --Dates Last Seen--
Quality: Unknown Element: 1932/10/14
Type: Natural/Native occurrence Site: 1932/10/14
Presence: Presumed Extant
Trend: Unknown
Main Info Source: KECK, D.D. #1953 DS (HERB)
Quad Summary: Oat Mountain (3411835), Santa Susana (3411836)
County(ies): Los Angeles
Location: HILLSIDES JUST SOUTH OF HIGHWAY 118, NEAR CHATSWORTH, APPROX. 0.7 MILE WEST OF JUNCTION WITH TOPANGA CANYON BLVD.
Lat/Long: 34d 16m 17s / 118d 36m 28s Township: 02N
UTM: Zone-11 N3793216 E351986 Range: 17W
Mapping Precision: NON-SPECIFIC (1 Mile) Section: UN XX Qtr
Symbol Type: POINT Meridian: S
Group Number: 00890 More Information? N Acres: 0
Map Index Number: 00890 More Map Detail? N Elevation: 1025 ft
Threats:
Comments: Ecological Notes - INFREQUENT IN CHAPARRAL. General Notes - TYPE LOCALITY. Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* *HEMIZONIA MINTHORNII* * *Santa Susana Tarplant* *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: State: Rare

State: S2.1 Audubon: *

CNPS List: 1B CNPS RED Code: 2-2-3 *

* ---Habitat Associations--- *

* General: CHAPARRAL, COASTAL SCRUB *

* Microhabitat: ROCK OUTCROPS *

*** Element ID: PDAST4R0J0 *

Occurrence Number: 7 --Dates Last Seen--

Quality: Unknown Element: XXXX/XX/XX

Type: Natural/Native occurrence Site: XXXX/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: KAPPLER, O.H. #1004 UCLA (HERB)

Quad Summary: Santa Susana (3411836)

County(ies): Ventura

Location: SANTA SUSANA MTNS. SILVERNALE RANCH, NEAR CHATSWORTH. CHATSWORTH PEAK.

Lat/Long: 34d 15m 22s / 118d 38m 29s Township: 02N

UTM: Zone-11 N3791577 E348866 Range: 17W

Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: UN XX Qtr

Symbol Type: POINT Meridian: S

Group Number: 00827 More Information? N Acres: 0

Map Index Number: 00827 More Map Detail? Y Elevation: 2100 ft

Threats:

Comments: Ecological Notes - SANDSTONE OUTCROPS AND CREVICES. General Notes - SEEN MORE RECENTLY THAN 1945 BY KUHN, BUT EXACT DATE UNKNOWN. Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* HEMIZONIA MINTHORNII Santa Susana Tarplant *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: State: Rare

State: S2.1 Audubon: *

CNPS List: 1B CNPS RED Code: 2-2-3 *

* ---Habitat Associations--- *

* General: CHAPARRAL, COASTAL SCRUB *

* Microhabitat: ROCK OUTCROPS *

*** Element ID: PDAST4R0J0

Occurrence Number: 11 --Dates Last Seen--

Quality: Unknown Element: 1987/XX/XX

Type: Natural/Native occurrence Site: 1987/XX/XX

Presence: Presumed Extant Trend: Unknown

Main Info Source: JOHNSON, A. F. 1978 (PERS)

Quad Summary: Oat Mountain (3411835)

County(ies): Los Angeles

Location: CHATSWORTH, NEAR NORTH TERMINUS OF TOPANGA CYN BLVD & SIMI VALLEY FREEWAY.

Lat/Long: 34d 16m 37s / 118d 36m 10s Township: 02N

UTM: Zone-11 N3793830 E352458 Range: 16W

Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: 07 NE Qtr

Symbol Type: POINT Meridian: S

Group Number: 00899 More Information? N Acres: 0

Map Index Number: 00899 More Map Detail? Y Elevation: 1250 ft

Threats: PART OF AREA PROPOSED FOR CHURCH FACILITY.

Comments: Distribution Notes - SMALL POPULATION SEEN IN 1978 OPPOSITE INDIAN HILLS TRAILER PARK. Ecological Notes - IN COASTAL SCRUB ON STEEP SANDSTONE OUTCROPS. ASSOCIATED WITH LOTUS SCOPARIUS, ADENOSTOMA FASCICULATUM, AND ARTEMISIA CALIFORNICA. General Notes - LESS THAN 500 PLANTS SEEN IN 1985 0.15 NORTH-NORTHWEST OF MAPPED LOCATION. Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* HEMIZONIA MINTHORNII   Santa Susana Tarplant *

* --------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2   Global: G2   CDFG: State: Rare

State: S2.1   Audubon: *

* CNPS List: 1B CNPS RED Code: 2-2-3   *

* ---Habitat Associations--- *

*   General: CHAPARRAL, COASTAL SCRUB   *

* Microhabitat: ROCK OUTCROPS   *

*** Element ID: PDAST4R0J0 *

Occurrence Number: 17   --Dates Last Seen--

Quality: Unknown   Element: 1979/11/28

Type: Natural/Native occurrence   Site: 1979/11/28

Presence: Presumed Extant

Trend: Unknown

Main Info Source: TANOWITZ & GORDON 1980 (LIT)

Quad Summary: Calabasas (3411826), Santa Susana (3411836)

County(ies): Ventura

Location: SIMI HILLS, SAGE RANCH 0.8 KM NW OF ROCKETDYNE LABORATORY ONBLACK CANYON ROAD.

Lat/Long: 34d 14m 34s / 118d 40m 57s   Township: 02N

UTM: Zone-11 N3790162 E345059   Range: 17W

Mapping Precision: SPECIFIC   (0 Mile)   Section: UN XX Qtr

Symbol Type: POLYGON   Meridian: S

Group Number: 00756   More Information? N   Acres: 669.8

Map Index Number: 00756   More Map Detail? Y Elevation: 2197 ft

Threats:

Comments: Ecological Notes - SCATTERED ON OPEN ROCKY SANDSTONE OUTCROPS IN CREVICES WITH ERIOGONUM FASCICULATUM, RIBES INDECORUM, PRUNUS ILICIFOLIA, AND ERIODICTYON SP.

Owner/Manager -

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* HEMIZONIA MINTHORNII   Santa Susana Tarplant   *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2   Global: G2   CDFG: State: Rare

State: S2.1   Audubon: *

CNPS List: 1B CNPS RED Code: 2-2-3   *

* ---Habitat Associations--- *

* General: CHAPARRAL, COASTAL SCRUB   Microhabitat: ROCK OUTCROPS *

*** Element ID: PDAST4R0J0 *

Occurrence Number: 18   --Dates Last Seen--

Quality: Unknown   Element: XXXX/XX/XX

Type: Natural/Native occurrence   Site: XXXX/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: KUHN, M. 1981 (MAP)

Quad Summary: Santa Susana (3411836)

County(ies): Ventura

Location: JUST E OF SANTA SUSANA KNOLLS, NEAR LOS ANGELES AVE & SP RR TRACKS, E END OF SIMI VALLEY.

Lat/Long: 34d 15m 37s / 118d 39m 36s   Township: 02N

UTM: Zone-11 N3792063 E347153   Range: 17W

Mapping Precision: NON-SPECIFIC (1/5 Mile)   Section: 16 NE Qtr

Symbol Type: POINT   Meridian: S

Group Number: 00790   More Information? N   Acres: 0

Map Index Number: 00790   More Map Detail? Y Elevation: 1100 ft

Threats:

Comments: General Notes - NONE. Owner/Manager - UNKNOWN

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* HEMIZONIA MINTHORNII   Santa Susana Tarplant   *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2   Global: G2   CDFG: State: Rare

State: S2.1   Audubon: *

* CNPS List: 1B   * CNPS RED Code: 2-2-3

* ---Habitat Associations--- *

* General: CHAPARRAL, COASTAL SCRUB   *

* Microhabitat: ROCK OUTCROPS   *

*** Element ID: PDAST4R0J0

Occurrence Number: 25   --Dates Last Seen--

Quality: Unknown   Element: 1987/03/05

Type: Natural/Native occurrence   Site: 1987/03/05

Presence: Presumed Extant

Trend: Unknown

Main Info Source: BOWLAND, J. 1986 (OBS)

Quad Summary: Oat Mountain (3411835)

County(ies): Los Angeles

Location: NW OF CHATSWORTH, N OF HWY 118, SE OF FERN ANN FALLS.

Lat/Long: 34d 16m 46s / 118d 36m 37s   Township: 02N

UTM: Zone-11 N3794118 E351772   Range: 17W

Mapping Precision: NON-SPECIFIC (1/5 Mile)   Section: 01 SE Qtr

Symbol Type: POINT   Meridian: S

Group Number: 00881   More Information? N   Acres: 0

Map Index Number: 00881   More Map Detail? N   Elevation: 1575 ft

Threats: RELOCATION AND ENLARGEMENT OF EXISTING WATER TANK WOULD REMOVE 70-100% OF PLANTS.

Comments: Ecological Notes - ON ROCKY SANDSTONE ASSOCIATED WITH SALVIA MELLIFERA, RHUS LAURINA, AND YUCCA WHIPPLEI.

General Notes - ABOUT 250 PLANTS SEEN. PLANTS TO BE TRANSPLANTED TO CUT SLOPES WILL BE TEMPORARILY STORED IN TUBS UNTIL GRADING COMPLETED. NO WORK SO FAR IN 1987.

Owner/Manager - COUNTY OF LOS ANGELES

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* *HEMIZONIA MINTHORNII* *Santa Susana Tarplant* *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G2 CDFG: State: Rare
State: S2.1 Audubon: *
* CNPS List: 1B CNPS RED Code: 2-2-3 *
* —Habitat Associations--- *
* General: CHAPARRAL, COASTAL SCRUB *
* Microhabitat: ROCK OUTCROPS *
*** Element ID: PDAST4R0J0 *
Occurrence Number: 27 --Dates Last Seen--
Quality: Good Element: 1987/10/02
Type: Natural/Native occurrence Site: 1987/10/02
Presence: Presumed Extant
Trend: Unknown
Main Info Source: VANDER PLUYM, D. 1986 (OBS)
Quad Summary: Calabasas (3411826), Santa Susana (3411836)
County(ies): Ventura
Location: 0.25 MI E OF BOX CYN RD, ALONG STUDIO RD, AND AT OLD WESTERNTOWN MOVIE STUDIO.
Lat/Long: 34d 14m 57s / 118d 38m 37s Township: 02N
UTM: Zone-11 N3790809 E348637 Range: 17W
Mapping Precision: SPECIFIC (0 Mile) Section: UN XX Qtr
Symbol Type: POLYGON Meridian: S
Group Number: 00823 More Information? Y Acres: 36.7
Map Index Number: 00823 More Map Detail? Y Elevation: 1800 ft
Threats: PLANTS ADJACENT TO ROAD THREATENED BY ROAD MAINTENANCE ACTIVITIES. HOUSING DEVELOPMENT ALSO THREATENS.
Comments: Distribution Notes - MOST VIGOROUS STANDS ADJACENT TO ROAD CUTS. Ecological Notes - IN CREVICES OF SANDSTONE BOULDERS AND IN THIN SOIL. IN MIXED COASTAL SAGE SCRUB/CHAPARRAL. General Notes - OVER 200 PLANTS IN 8 SMALL POPULATIONS.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
*   *
* HEMIZONIA MINTHORNII   Santa Susana Tarplant*
* ---------Status---------- NDDB Element Ranks ---------Other Lists--------- *
* Federal: Category 2   Global: G2   CDFG:
State: Rare   State: S2.1   Audubon: *
*   CNPS List: 1B   *
* ---Habitat Associations---   CNPS RED Code: 2-2-3   *
* General: CHAPARRAL, COASTAL SCRUB   *
* Microhabitat: ROCK OUTCROPS   *
*** Element ID: PDAST4R0J0 **

Occurrence Number: 28   --Dates Last Seen--
Quality: Unknown   Element: 1987/XX/XX
Type: Natural/Native occurrence   Site: 1987/XX/XX
Presence: Presumed Extant
Trend: Unknown
Main Info Source: TERESA, S. 1987 (MAP)
Quad Summary: Oat Mountain (3411835)
County(ies): Los Angeles
Location: 0.25 MI E OF FERN ANN FALLS, E OF SANTA SUSANA PASS, N OF HWY 118.
Lat/Long: 34d 17m 03s / 118d 36m 32s   Township: 02N
UTM: Zone-11 N3794640 E351908   Range: 17W
Mapping Precision: NON-SPECIFIC (1/5 Mile)   Section: 01 SE Qtr
Symbol Type: POINT   Meridian: S
Group Number: 00887   More Information? N   Acres: 0
Map Index Number: 00887   More Map Detail? N   Elevation: 1400 ft
Threats:
Comments: General Notes - MAP LOCATION IS ONLY INFORMATION.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* HEMIZONIA MINTHORNII Santa Susana Tarplant *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: *

* State: Rare State: S2.1 Audubon: *

* CNPS List: 1B *

* ---Habitat Associations--- CNPS RED Code: 2-2-3 *

* General: CHAPARRAL, COASTAL SCRUB *

* *Microhabitat:* ROCK OUTCROPS *

*** Element ID: PDAST4R0J0 ***

Occurrence Number: 29 --Dates Last Seen--

Quality: Unknown Element: 1987/XX/XX

Type: Natural/Native occurrence Site: 1987/XX/XX

Presence: Presumed Extant

Trend: Unknown

Main Info Source: TERESA, S. 1987 (MAP)

Quad Summary: Oat Mountain (3411835), Santa Susana (3411836)

County(ies): Los Angeles

Location: APPROX. 1 AIRMILE N OF SANTA SUSANA PASS, W OF FERN ANN FALLS, VICINITY OF HIALEAH SPRINGS.

Lat/Long: 34d 16m 53s / 118d 37m 28s Township: 02N

UTM: Zone-11 N3794347 E350483 Range: 17W

Mapping Precision: SPECIFIC (0 Mile) Section: 02 XX Qtr

Symbol Type: POLYGON Meridian: S

Group Number: 00855 More Information? N Acres: 83.6

Map Index Number: 00855 More Map Detail? Y Elevation: 1600 ft

Threats: THREATENED BY PROPOSED INDIAN WELLS ESTATES HOUSING DEVELOPMENT.

Comments: General Notes - MAP LOCATION IS ONLY INFORMATION.

Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

* *

* HEMIZONIA MINTHORNII *

* Santa Susana Tarplant *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2 Global: G2 CDFG: *

* State: Rare State: S2.1 Audubon: *

* CNPS List: 1B *

* ---Habitat Associations--- CNPS RED Code: 2-2-3 *

* General: CHAPARRAL, COASTAL SCRUB *

* Microhabitat: ROCK OUTCROPS *

*** Element ID: PDAST4R0J0 *

Occurrence Number: 30 --Dates Last Seen--

Quality: Unknown Element: 1987/04/15

Type: Natural/Native occurrence Site: 1987/04/17

Presence: Presumed Extant

Trend: Unknown

Main Info Source: VANDER PLUYM, D. 1987 (OBS)

Quad Summary: Santa Susana (3411836)

County(ies): Ventura

Location: APPROX. 0.4 MI WSW OF CHATSWORTH PEAK SUMMIT, SIMI HILLS.

Lat/Long: 34d 15m 17s / 118d 38m 44s Township: 02N

UTM: Zone-11 N3791429 E348480 Range: 17W

Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: UN XX Qtr

Symbol Type: POINT Meridian: S

Group Number: 00819 More Information? N Acres: 0

Map Index Number: 00819 More Map Detail? Y Elevation: 1925 ft

Threats:

Comments: Ecological Notes - ROCK CREVICES OF SANDSTONE BOULDERS IN MIXED SAGE SCRUB/CHAPARRAL WITH OPEN AREAS ON THIN SOILS. AREA DOMINATED BY ANNUAL GRASSES (AVENA SP.), SALVIA SP., MALACOTHAMNUS FASCICULATUM, AND ADENOSTOMA FASCICULATUM.

General Notes - ABOUT 18 PLANTS SEEN. Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
* *
* OPUNTIA BASILARIS VAR BRACHYCLADA *Short-joint Beavertail* *
* --------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2 Global: G5T1 CDFG: *
* State: None State: S1.1 Audubon: *
* CNPS List: 1B *
* ---Habitat Associations--- CNPS RED Code: 3-2-3 *
* General: CHAPARRAL, JOSHUA TREE WOODLAND, DESERT WASHES, RIPARIAN WOODLAND. *
* Microhabitat: DRY SLOPES; 4000-7500 FT. *
*** Element ID: PDCAC0D053 *

Occurrence Number: 10 --Dates Last Seen--
Quality: Unknown Element: 1985/06/11
Type: Natural/Native occurrence Site: 1985/06/11
Presence: Presumed Extant
Trend: Decreasing
Main Info Source: KRANTZ, T. 1985 (OBS)
Quad Summary: Newhall (3411845)
County(ies): Los Angeles
Location: RIDGE BETW ORO FINO CYN & QUIGLEY CYN, ENE OF NEWHALL.
Lat/Long: 34d 23m 37s / 118d 30m 16s Township: 04
UTM: Zone-11 N3806645 E361700 Range: 16W
Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: UN XX Qtr
Symbol Type: POINT Meridian: S
Group Number: 01238 More Information? N Acres: 0
Map Index Number: 01238 More Map Detail? Y Elevation: 1600 ft
Threats: MAJOR DISTURBANCES FROM OIL WELLS AND ASSOCIATED ACTIVITIES.
Comments: Ecological Notes - IN COASTAL CHAPARRAL WITH INTRODUCED ANNUAL GRASSLAND ON SANDY SOIL.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* OPUNTIA BASILARIS VAR BRACHYCLADA   Short-joint Beavertail *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 2   Global: G5T1   CDFG: *

*   State: None   State: S1.1   Audubon: *

*   CNPS List: 1B   *

* ---Habitat Associations---   CNPS RED Code: 3-2-3   *

*   General: CHAPARRAL, JOSHUA TREE WOODLAND, DESERT WASHES, RIPARIAN WOODLAND.   *

* Microhabitat: DRY SLOPES; 4000-7500 FT.   *

*** Element ID: PDCAC0D053 *

Occurrence Number: 11   --Dates Last Seen--

Quality: Unknown   Element: 1985/06/11

Type: Natural/Native occurrence   Site: 1985/06/11

Presence: Presumed Extant

Trend: Unknown

Main Info Source: KRANTZ, T. 1985 (OBS)

Quad Summary: Newhall (3411845), Mint Canyon (3411844)

County(ies): Los Angeles

Location: SOUTH SIDE OF QUIGLEY CANYON, ON N-FACING SLOPE, EAST OF NEWHALL.

Lat/Long: 34d 23m 15s / 118d 30m 01s   Township: 04N

UTM: Zone-11 N3805946 E362075   Range: 15W

Mapping Precision: NON-SPECIFIC (1/5 Mile)   Section: 31 NW Qtr

Symbol Type: POINT   Meridian: S

Group Number: 01251   More Information? N   Acres: 0

Map Index Number: 01251   More Map Detail? Y   Elevation: 1400 ft

Threats: MAJOR DISTURBANCES FROM OIL WELLS AND ASSOCIATED ACTIVITIES.

Comments: Ecological Notes - IN COASTAL CHAPARRAL WITH INTRODUCED ANNUAL GRASSLAND ON SANDY SOIL.

Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **
*   *
* CALYSTEGIA PEIRSONII   Peirson's Morning-glory *
* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *
* Federal: Category 2   Global: G3   CDFG: *
* State: None   State: S3.2   Audubon: *
*   CNPS List: 4   *
* ---Habitat Associations---   CNPS RED Code: 1-2-3   *
* General: CHAPARRAL, COASTAL SCRUB   *
* Microhabitat: 2800-4500 FT.   *
*** Element ID: PDCON040A0 *

Occurrence Number: 25   --Dates Last Seen--
Quality: Unknown   Element: 1982/06/04
Type: Natural/Native occurrence   Site: 1982/06/04
Presence: Presumed Extant
Trend: Unknown

Main Info Source: WILSON, R. ET AL 1982 (LIT)
Quad Summary: Warm Springs Mountain (3411855), Newhall (3411845)
County(ies): Los Angeles
Location: SAN FRANCISQUITO CANYON RD, 7.4 MI N OF SAUGUS, 0.5 MI UP DIRT RD TO WEST.

Lat/Long: 34d 30m 44s / 118d 32m 35s   Township: 05N
UTM: Zone-11 N3819837 E358353   Range: 16W
Mapping Precision: NON-SPECIFIC (1 Mile)   Section: 15 XX Qtr
Symbol Type: POINT   Meridian: S
Group Number: 01084   More Information? N   Acres: 0
Map Index Number: 01084   More Map Detail? N   Elevation: 1800 ft

Threats:
Comments: Distribution Notes - HERBARIUM LABEL GIVES "CA 2200 FT ELEV", HOWEVER ELEVATION AT DESCRIBED LOCATION IS 1800 FEET.
Ecological Notes - ON BARE ROADCUT, DRY, EXPOSED, LOOSE SOIL.
ASSOCIATED WITH ERIOGONUM FASCICULATUM, GRASS SP..
General Notes - POPULATION IN GOOD CONDITION IN 1982.
Owner/Manager - USFS-ANGELES NF

** California Department of Fish and Game ***** Natural Diversity Data Base **
*   *
* CALYSTEGIA PEIRSONII * Peirson's Morning-glory *
* ---------Status--------- NDDB Element Ranks -------Other Lists--------- *
* Federal: Category 2 Global: G3 CDFG: *
* State: None State: S3.2 Audubon: *
* CNPS List: 4 *
* ---Habitat Associations--- CNPS RED Code: 1-2-3 *
* General: CHAPARRAL, COASTAL SCRUB *
* Microhabitat: 2800-4500 FT. *
*** Element ID: PDCON040A0 *

Occurrence Number: 26 --Dates Last Seen--
Quality: Unknown Element: 1982/XX/XX
Type: Natural/Native occurrence Site: 1982/XX/XX
Presence: Presumed Extant
Trend: Unknown

Main Info Source: WILSON, R. ET AL 1982 (LIT)
Quad Summary: Warm Springs Mountain (3411855), Newhall (3411845)
County(ies): Los Angeles
Location: 1.2 MI FROM CHARLIE PEAK ON DIRT RD, BITTER CANYON.
Lat/Long: 34d 30m 07s / 118d 34m 45s Township: 05N
UTM: Zone-11 N3818748 E355020 Range: 16W
Mapping Precision: NON-SPECIFIC (1/5 Mile) Section: 20 SE Qtr
Symbol Type: POINT Meridian: S
Group Number: 00965 More Information? N Acres: 0
Map Index Number: 00965 More Map Detail? N Elevation: 1300 ft
Threats:
Comments: General Notes - GOOD CONDITION IN 1982.
Owner/Manager - PVT

** California Department of Fish and Game ***** Natural Diversity Data Base **

*   *

* BERBERIS NEVINII   *Nevin's Barberry *

* ---------Status---------- NDDB Element Ranks --------Other Lists--------- *

* Federal: Category 1   Global: G2   CDFG: *

* State: Endangered   State: S2.2   Audubon: *

*   CNPS List: 1B   *

* ---Habitat Associations---   CNPS RED Code: 3-3-3   *

* General: CHAPARRAL, COASTAL SCRUB, ALLUVIAL FAN SAGE SCRUB.   *

* Microhabitat: ON STEEP, N-FACING SLOPES OR IN LOW GRADE SANDY WASHES; 900-1600 FT.THIS IS THE CA-LISTED TAXON, AKA MAHONIA IN TITLE 14 *

*** Element ID: PDBER060A0 *

Occurrence Number: 12   --Dates Last Seen--

Quality: Unknown   Element: 1965/XX/XX

Type: Natural/Native occurrence   Site: 1987/07/01

Presence: Possibly Extirpated

Trend: Unknown

Main Info Source: THOMPSON & BACIGALUPI 1968 (LIT)

Quad Summary: Newhall (3411845)

County(ies): Los Angeles

Location: SAN FRANCISQUITO CYN, NEAR CONFLUENCE W/SANTA CLARA RIVER.

Lat/Long: 34d 27m 53s / 118d 33m 07s   Township: 04N

UTM: Zone-11 N3814582 E357456   Range: 16W

Mapping Precision: NON-SPECIFIC (1 Mile)   Section: UN XX Qtr

Symbol Type: POINT   Meridian: S

Group Number: 01058   More Information? N   Acres: 0

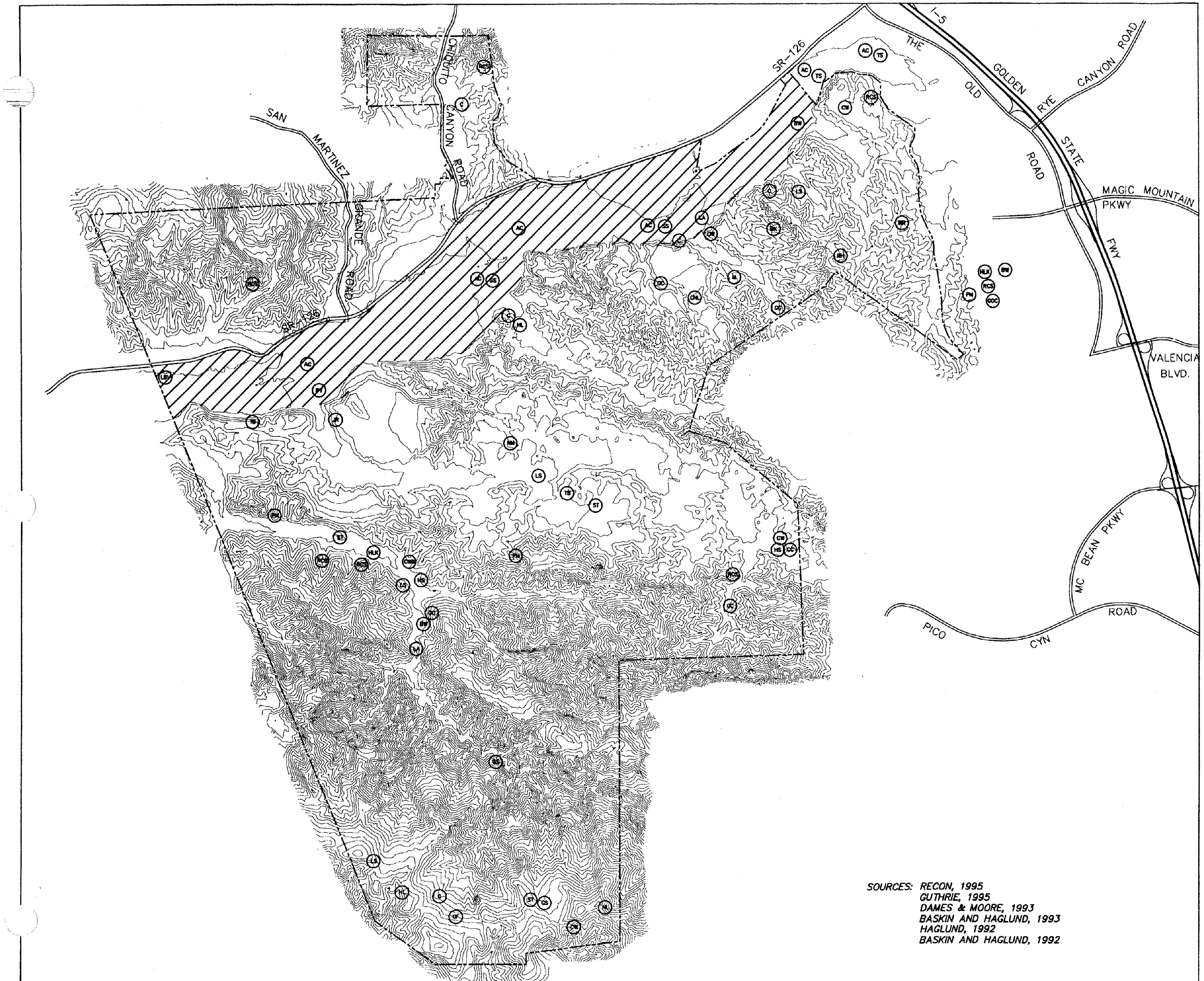
Map Index Number: 01058   More Map Detail? N   Elevation: 1250 ft

Threats: AREA NOW HAS A NURSERY UNDER POWER LINES, CROPS IN FLOODPLAIN AND IS A POPULAR ORV AREA. EROSION ALSO THREATENS.

Comments: General Notes - SP SEEN IN 1965, BUT NOT IN 1987 FIELD VISIT.

Owner/Manager - UNKNOWN

APPENDIX N
Location of Sensitive Species



NEWHALL RANCH
Newhall Ranch Company

LEGEND

PLANTS
- PM PIERSON'S MORNINGGLORY

ANIMALS
- C COOPER'S HAWK
- CW COASTAL WHIPTAIL
- HL SAN DIEGO HORNED LIZARD
- HLK HORNED LARK
- JR SAN DIEGO BLACK-TAILED JACKRABBIT
- NH NORTHERN HARRIER
- LBV LEAST BELL'S VIREO
- LS LOGGERHEAD SHRIKE
- ST WESTERN SPADEFOOT TOAD
- WR SAN DIEGO DESERT WOODRAT
- RCS RUFOUS-CROWNED SPARROW
- BK BLACK-SHOULDERED KITE
- TB TRICOLORED BLACKBIRDS
- CHL CALIFORNIA HORNED LIZARD
- RH RED-TAILED HAWK NEST
- GS TWO-STRIPED GARTER SNAKE
- M MOUNTAIN LION TRACKS

BUTTERFLIES
- BW BECKER'S WHITE
- CWB CALIFORNIA WHITE BUTTERFLY
- HS HARFORD'S SULPHUR
- CF COMSTOCK'S FRITILLARY
- GC GABB'S CHECKERSPOT
- LA LORQUIN'S ADMIRAL
- CC CLOUDY COPPER
- GOC GORGON COPPER

FISH
- AC ARROYO CHUB
- TS UNARMORED THREESPINE STICKLEBACK
- SS SANTA ANA SUCKER
- PT SOUTHWESTERN POND TURTLE

SCHEMATIC REPRESENTATION OF LEAST BELL'S VIREO CRITICAL HABITAT AREA WITHIN PROJECT BOUNDARIES

100 ACRES
English 0 1000' 2000'
Metric 0 225m 450m 900m
NORTH

LOCATION OF SENSITIVE SPECIES

APPENDIX O
Meeting Minutes and Response to Comments - Significant Ecological Area Technical Advisory Committee

Los Angeles County
Department of Regional Planning

Director of Planning. James E. Hartl, AICP

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF DECEMBER 5, 1994

(Approved as amended January 9, 1995)

PERSONS IN ATTENDANCE:

SEATAC MEMBERS	REGIONAL PLANNING STAFF
Janet Fahey, PhD	Kerwin Chih
Richard Friesen, PhD	Frank Meneses
Frank Hovore	Lee Stark
Gary Wallace, PhD	Daryl Koutnik, PhD

Project 94-087 Representatives

Gloria Glenn	(805) 255-4045
Paul Fromer	(619) 542-1611
Tom Worthington	(805) 494-6600

MINUTES

DECEMBER 5, 1994

AGENDA ITEMS

1. Friesen moved and Fahey seconded to approve the July 11, 1994 Minutes as written.

NEW BUSINESS

2. **Project 94-087** - See Attachment Item 2

3. All new applicants were accepted to the Certified List of Biological Consultants and no companies were evaluated as having prepared inadequate reports for SEATAC in 1994. It was suggested that all certified biological consultants be asked to agree to a code of ethics (yet to be formulated).

IMPACT SCIENCES INC.
JAN 23 1995
RECEIVED

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NOTE:

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SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE DECEMBER 5, 1994 ITEM 2

BIOLOGICAL CONSTRAINTS ANALYSIS Dated October 13, 1994

Initial SEATAC meeting

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the northwesternmost examples of this community.

The Santa Susana Mountains are the main representative of these low, dry interior mountain ranges in Los Angeles County. The core of this range is in good condition and has not been heavily disturbed by human use. These mountains are becoming isolated from surrounding natural areas by continued urban expansion in the San Fernando, Simi, and Santa Clarita Valleys. The Santa Susana Mountains have become an important wildlife corridor for gene flow and species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. An overlay of sensitive species over the identified sensitive habitats is suggested; sensitive habitats are not completely identified in priorities; need more detailed discussion of sensitive species; explain how the sensitive species information was used to set project priorities/sensitivities; update sensitive species since not all currently listed species are discussed.
2. Plant species should be arranged by plant family; plant names should be updated to reflect current taxonomy found in Jepson Manual (1993).
3. Corridor discussion too general; provide details of reasoning in discussion and be specific concerning currently available information; include in discussion use by endangered species; objectives of corridors should be stated; include discussion of off-site Ventura County corridor connections; include discussion of genetic exchange within species (e.g., *Quercus lobata*); animals do cross over ridge lines.
4. There is evidence for some species misidentifications in the Dames & Moore report (e.g., *Dipodomys heermanni* is not known from south of the San Joaquin Valley); any discrepancies in details (e.g., agricultural and disturbed lands are not dominant habitats, page 9; unclear why coastal sage scrub is not likely habitat for California gnatcatcher, page 13) need to be corrected.
5. The resumes or qualifications of biological field consultants need to be provided.
6. Discussion of potential impacts must also include reference to sensitive species that may occur on the project site.
7. The written constraints analysis is disjointed and the independent studies are not adequately tied together.
8. Habitat value discussion is misleading (e.g., mixed chaparral); provide accurate discussion of wildlife use in each habitat.
9. For the SEATAC Biota Report, identify adjacent landowners and include water quality and hydrology analyses (especially for the proposed waste water treatment plant) with a discussion of any potential impacts to biota.

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

10. For planning purposes, SEATAC considers the entire Santa Clara River watershed to be SEA buffer region.
11. SEATAC recommends that they review each development phase proposed in the finalized Specific Plan; SEATAC recommends that they conduct a field visit to the project site (to be coordinated between Newhall Land & Farming and the L.A. County Planning Department).

ACTION TAKEN: Revise the Biological Constraints Analysis to address above comments and recommendations; County biologist to review final constraints analysis; SEATAC to receive copy of final constraints analysis; SEATAC to review required Biota Report.

Los Angeles County
Department of Regional Planning
Director of Planning, James E. Hartl, AICP

File: N12, SEATAC

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF OCTOBER 2, 1995

3202

PERSONS IN ATTENDANCE:

SEATAC MEMBERS

Jonathan Baskin, PhD
Janet Fahey, PhD
Richard Friesen, PhD
Tim Laughlin
Carl Wishner

REGIONAL PLANNING STAFF

Kishore Manandhar
Frank Meneses
Lee Stark

Project 94-114/PM23793 Representatives

Scott Cameron	(714) 250-5555

Project 94-087 Representatives

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Dave Crowder	(805) 222-2592
Paul Fromer	(619) 542-1611
Gloria Glenn	(805) 222-2594
Eric Sakowicz	(805) 494-6600
Gerry Scheid	(619) 542-1611
Tom Worthington	(805) 494-6600

MINUTES
OCTOBER 2, 1995

AGENDA ITEMS

1. Friesen moved and Wishner seconded to approve the September 11, 1995 Minutes as amended.

NEW BUSINESS

2. **Project 94-141/PM23793** - See Attachment Item 2

3. **Project 94-087** - See Attachment Item 3

SEATAC REPORT AND COMMENTS

PROJECT 94-114/PM 23793 - LOT SPLIT

SEATAC MEETING DATE OCTOBER 2, 1995 ITEM 2

BIOLOGICAL CONSTRAINTS ANALYSIS Dated July, 1995

Initial SEATAC meeting

PROPOSED PROJECT: 94-114/PM 23793. The project is a proposed two-lot split of 25.38 acres within SEA No. 21 (Santa Susana Pass).

SEA DESCRIPTION: Santa Susana Pass Significant Ecological Area (SEA No. 21) is the original and primary location for *Hemizonia minthornii*, the Santa Susana tarweed. For this reason, the species has been placed on the Federal endangered species list. Six populations have been recorded on these rocky chaparral covered hillsides, four of which are in Los Angeles County.

In addition to supporting this endangered species, the Santa Susana Pass is an important wildlife migration route. As urbanization continues in the San Fernando and Simi Valleys, the Simi Hills and Santa Susana Mountains are becoming isolated from each other. The Pass, however, remains in a relatively natural condition and serves as a corridor for gene flow and species movement.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. Prepare document using both sides of paper; Jepson Manual plant taxonomy (e.g. *Lessingia filaginifolia* instead *Corethrogyne filaginifolia*, page 5) should be followed throughout document; provide photo key map for all photographs; include consulting biologist's resume.
2. The building pads should be clustered and situated to conform with the least sensitive biological constraints; applicant should consult with project biologist on where best to locate building pads relative the biological resources; provide a map depicting the biological constraints of project site; recommend that the western pad be located closer to existing disturbed site.
3. Discuss with Forester & Fire Warden the fire clearance for project area and analyze significance of fuel modification impacts; review previous biota reports for the area.
4. Correct word processing errors (e.g., San Diego horned lizard, page 10); plot the distribution of *Calochortus plummerae*; provide fire history of project site and vicinity, if available; *Hemizonia minthornii* is perennial and abundant at all times of year (not just those months mentioned in report); Los Angeles pocket mouse is at the northern edge of its distribution in project vicinity.

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

5. Focused survey for *Hemizonia minthornii* must be undertaken; survey project site and adjacent property; discussions of sensitive species need specific comments; make statement of relevance (e.g. likely or unlikely to occur) of each species to project site; include estimate of population sizes within project vicinity; note whether or not the San Diego woodrat exists on site.
6. Clearly assess the possibility of animal movement through project site; rate site for overall value to wildlife.
7. Provide clarification of relevance of "Not A Part" property and intervening parcel to the proposed project; discuss ownership of proposed project site and that of "Not A Part" property; discuss surrounding area in cumulative impact analysis and include map of planned, approved, etc. projects.

ACTION TAKEN: Further SEATAC review is required; prepare full biota report including responses to above comments/recommendations.

DRAFT

SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE OCTOBER 2, 1995 ITEM 3

BIOTA REPORT Dated September 7, 1995

Initial SEATAC meeting (biological constraints analysis reviewed December 5, 1994)

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the northwesternmost examples of this community.

The Santa Susana Mountains are the main representative of these low, dry interior mountain ranges in Los Angeles County. The core of this range is in good condition and has not been heavily disturbed by human use. These mountains are becoming isolated from surrounding natural areas by continued urban expansion in the San Fernando, Simi, and Santa Clarita Valleys. The Santa Susana Mountains have become an important wildlife corridor for gene flow and species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.

DRAFT

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. Need to know overall impacts to habitat by proposed land use designations; habitat in low-lying areas will be fragmented by proposed land uses.
2. Golf course has little biological value and should not be considered part of conservation plan; provide the river wildlife corridor keyed to the corridor map.
3. SEATAC requests that applicant agree to SEATAC review of all future tract maps even if severed from the SEA as a result of other land divisions.
4. Piecemeal and general use of significance conclusions is unacceptable; support with reasons all significance conclusions; separate significance determination before and after mitigations; define significance criteria; significant impact analysis needs to be reevaluated; SEATAC concludes that biological impacts (especially loss of wildlife habitat) of project are significant.
5. SEATAC would like to see property ownership both up and down the Santa Clara River.
6. SEATAC wants applicant to make commitment to Los Angeles County concerning perpetuity of wildlife corridor connection of Salt Creek with Santa Clara River.
7. Provide details of mammal trapping concerning trap sensitivity for *Perognathus longimembris brevinasus* (Los Angeles pocket mouse); southern willow riparian woodland is strange habitat for *Dipodomys agilis*; check proper infraspecific identification of *Calochortus clavatus*.
8. SEATAC to review Draft EIR during County circulation, including alternatives analysis and conservation plan; document whether conservation plan will change if alternative project selected.
9. Elimination of grassland habitat (which does function as wildlife habitat) will diminish value of other adjacent habitats; preservation of riparian corridor should be given highest conservation priority; width of riparian corridor is crucially important; disturbed habitats may still have conservation value; terraces above riparian corridor may also have habitat value with appropriate vegetation.

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

10. Proposed Specific Plan must include SEA design compatibility criteria.
11. Applicant should be willing to allow SEATAC more than the maximum of three reviews of biota report.

ACTION TAKEN: Further SEATAC review required; continue discussion of biota report at next SEATAC meeting. Applicant may submit additional items prior to the meeting.

DRAFT

Post-it™ brand fax transmittal memo 7671	# of pages ▸ 5
To PAUL CALDERWOOD	From DARYL KOUTNIK
Co. IMPACT SCIENCES	Co. REGIONAL PLANNING
Dept.	Phone # 213 974-6461
Fax # 805 494-0651	Fax # 213 626-0434

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Los Ang
Department of
Director of Planning

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF NOVEMBER 6, 1995

PERSONS IN ATTENDANCE:

SEATAC MEMBERS	REGIONAL PLANNING STAFF
Jonathan Baskin, PhD	Kishore Manandhar
Richard Friesen, PhD	Frank Meneses
Frank Hovore	Daryl Koutnik, PhD
Gary Wallace, PhD	
Carl Wishner	

Project 94-087 Representatives

Brian Arnold	(805) 494-6600
Paul Fromer	(619) 542-1611
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Project 95-124/TR46029 Representatives

Brian Arnold	(805) 494-6600
Paul Calderwood	(805) 494-6600
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Eric Sakowicz	(805) 494-6600

MINUTES

NOVEMBER 6, 1995

AGENDA ITEMS

1. Wishner moved and Wallace seconded to approve the October 2, 1995 Minutes as amended.

DRAFT

SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE NOVEMBER 6, 1995 ITEM 2

BIOTA REPORT Dated September 7, 1995

Previous SEATAC meeting: October 2, 1995 (biological constraints analysis reviewed December 5, 1994)

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

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DRAFT

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. All grading impacts should be removed along wildlife corridors.
2. Provide comparison between General Plan zoning density and density of proposed plan.
3. *Arundo* control must be included in the Resource Management Plan.
4. Provide details of bank stabilization, include evaluation of impacts from construction and straightening of channels.
5. Summarize changes in significant impacts.
6. Implementation of proposed plan should make no changes to water quality or water quantity.
7. Provide responses to December 5, 1994 SEATAC Comments and Recommendations.

ACTION TAKEN: Further SEATAC review required; discuss existing biota report and provide recommendations to proposed Resource Management Plan.

DRAFT

SEATAC REPORT AND COMMENTS

PROJECT 95-124/TR 46029 - Zone Change, Conditional Use Permit

SEATAC MEETING DATE NOVEMBER 6, 1995 ITEM 3

BIOTA REPORT Dated October 12, 1995

Initial SEATAC meeting (biological constraints analysis for 87-437/PM19091 reviewed 1995)

PROPOSED PROJECT: 95-124/TR 46029. The proposed project is to develop about 1400 dwelling units, a 9-hole golf course, a 23-acre commercial site, bank stabilization and 4 open space lots (66.3 acres) on 247 acres. The project site is located within and adjacent to SEA No. 19 (San Francisquito Canyon). An EIR is required.

SEA DESCRIPTION: San Francisquito Canyon (SEA No. 19) possesses two populations of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a species formerly present in Los Angeles, San Gabriel, and Santa Ana Rivers, and listed as endangered at both the state and federal levels. In San Francisquito Canyon, the fish is confined to permanent streams and pools below Drinkwater Reservoir and above Baird Canyon. Legally mandated water releases from Drinkwater Reservoir maintain the populations below the dam. Survival of the unarmored threespine stickleback is dependent upon preserving its habitat.

The watershed supplying San Francisquito Canyon was until recently relatively undisturbed. The hillsides support a dense cover of coastal sage scrub and chaparral. The San Francisquito stream course is mostly natural and maintains riparian woodland. Intermittent areas with surface water connect perennial streams during the rainy season. The natural vegetation along the intermittent portion of the stream slows heavy runoff during the rainy season, decreases destruction and siltation of habitat in downstream areas, and provides habitat for migration between populations.

The unarmored threespine stickleback populations in San Francisquito Canyon are the only ones for which the possibility exists to plan and control development in the majority of the watershed. This is certainly not true for populations in the Santa Clara River valley.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. SEATAC recommends that all development be outside the 100-year floodplain.
2. Bullfrogs, *Gambusia*, and *Telopia* should be included in invasive control program within artificial water features; management program is needed to control *Xenopus*; (page 4.0-1) exotic species control should include *Tamarix*; Shawna Bautitsa (National Forest Service, Saugus District) is a good contact person for *Arundo* control.
3. Trails do not act as appropriate buffers for riparian habitats.

DRAFT

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

4. Provide details for proposed riparian vegetation replacement; (page 4.0-1) the revegetation plan must be based on natural models.
5. (Page 3.0-2) SEATAC disagrees that a golf course has the same impacts to resources that ruderal areas possess; sensitive species can survive in a ruderal, grassland community but not within a golf course setting (since the habitat values are different).
6. (Page 3.0-3) Alluvial sage scrub is a natural disturbance community and is considered rare and sensitive (category S1.1, the highest sensitivity level by State Fish & Game); the 24 acres of impact to alluvial scrub community must be considered to be significant.
7. (Page 3.0-8) Human impacts discussion is not well thought out (discussion includes birds but not insects); (section 3.3.2) domestic animal impacts are potentially significant since cats will prey on sensitive species (discussion not worded accurately).
8. (Page 3.0-11) Native species only, using local genetic material as much as possible, should be part of the revegetation plan including complementary vegetation associations.
9. Integrated Pest Management plan for golf course is needed (contact New York Audubon Society for details).
10. SEA boundary is inaccurate; include map indicating where bank stabilization is proposed; mitigation measures lack sufficient details for appropriate evaluation; discuss impacts from proposed river crossings (Decoro and Copperhill); trapping techniques are needed to make definitive statement concerning the two-striped garter snake (*Thamnophis hammondii*).

ACTION TAKEN: Further SEATAC review is required.

Los Angeles County
Department of Regional Planning
Director of Planning. James E. Hartl, AICP

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF DECEMBER 4, 1995

(Approved January 8, 1996)

PERSONS IN ATTENDANCE:

SEATAC MEMBERS

Jonathan Baskin, PhD
Gary Wallace, PhD
Carl Wishner

REGIONAL PLANNING STAFF

Lee Stark
Daryl Koutnik, PhD

Project 94-087 Representatives

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MINUTES

DECEMBER 4, 1995

AGENDA ITEMS

1. Wishner moved and Baskin seconded to approve the November 6, 1995 Minutes as written.

OLD BUSINESS

2. **Project 94-087** - See Attachment Item 2

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NOTE:
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SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE DECEMBER 4, 1995 ITEM 2

BIOTA REPORT Dated September 7, 1995

Previous SEATAC meetings: October 2, and November 6, 1995

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the northwesternmost examples of this community.

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SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. Provide summary of biological constraints (map and brief discussion).
2. Provide response to comments/recommendations from all previous SEATAC meetings of project, reference existing Biota Report pages where appropriate.
3. Loss of habitat is considered significant; impacts to rare or sensitive species should be considered significant (page 134).
4. Grasslands are valuable habitat; mesic meadow habitat (nearest to cismontane alkali marsh of Holland) should be high sensitivity; Salt Creek may be habitat for stickleback (since fish habitat is where water occurs).
5. Any proposed bank stabilization must allow the river to meander between its present natural banks; all existing waterbodies should remain in natural condition.
6. Planting of oak trees (in compliance with oak ordinance) does not mitigate loss of habitat; reproductive viability of oak trees need to be discussed.
7. Wildlife corridor must be open to Ventura County portion of Santa Clara River; provide discussion of wildlife corridor alternatives (since Los Angeles County has no control of Ventura County development); discuss cumulative impacts to Santa Clara River of adjacent projects on property owned by Newhall Land & Farming; discuss all bridge crossings of river, including expected lighting (which should be low and directed); bridge span design should place footings at widest part of floodplain to allow river meandering.
8. Reduction in project footprint (i.e., fewer residential units) will reduce impacts to habitat loss.
9. Make statement concerning which SEA No. 20 resources (e.g., *Pseudotsuga macrocarpa*) are not relevant to the project site.
10. Water quality impacts need to be detailed; provide specific details as to how water quality will remain the same after urbanization of site; discuss how much change in river water flow is likely after project construction.
11. Resource Management Plan: provide definition of "enhancement"; *Arundo* removal should include upstream areas (within context of riverwide framework); river recreation should include river trail only; southwestern pond turtle does not tolerate human interference so habitat areas need controls; include triggers for remedial response and establish action thresholds; oak habitat in High Country should be restored (to pre-grazing conditions).

ACTION TAKEN: Further SEATAC review required; address above comments and resubmit.

Los Angeles County
Department of Regional Planning

Director of Planning James E. Hartl, AICP

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF JANUARY 8, 1996

(Approved as amended March 4, 1996)

PERSONS IN ATTENDANCE:

SEATAC MEMBERS	REGIONAL PLANNING STAFF
Jonathan Baskin, PhD	Kishore Manandhar
Janet Fahey, PhD	Frank Meneses
Richard Friesen, PhD	Lee Stark
Frank Hovore	Daryl Koutnik, PhD
Tim Laughlin	
Gary Wallace, PhD	
Carl Wishner	

Project 95-124/TR46029 Representatives

Brian Arnold	(805) 494-6600
Paul Calderwood	(805) 494-6600
Greg Medeiros	(805) 255-4003
Eric Sakowicz	(805) 494-6600

Project 94-087 Representatives

Brian Arnold	(805) 494-6600
Gloria Glenn	(805) 222-2594
Eric Sakowicz	(805) 494-6600
Tom Worthington	(805) 494-6600

Project 94-129 Representatives

Paul Taylor	(310) 575-4850
Russ Watson	(805) 527-9330

MINUTES

JANUARY 8, 1996

AGENDA ITEMS

1. Wishner moved and Fahey seconded to approve the December 4, 1995 Minutes as written.

OLD BUSINESS

2. **Project 95-124/TR46029** - See Attachment Item 2

3. **Project 94-087** - See Attachment Item 3

NEW BUSINESS

4. **Project 94-129** - See Attachment Item 4

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NOTE:
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SEATAC REPORT AND COMMENTS

PROJECT 95-124/TR 46029 - Zone Change, Conditional Use Permit

SEATAC MEETING DATE JANUARY 8, 1996 ITEM 2

SUPPLEMENTAL BIOTA REPORT Dated December 16, 1995

Previous SEATAC meeting: November 6, 1995

PROPOSED PROJECT: 95-124/TR 46029. The proposed project is to develop about 1400 dwelling units, a 9-hole golf course, a 23-acre commercial site, bank stabilization and 4 open space lots (66.3 acres) on 247 acres. The project site is located within and adjacent to SEA No. 19 (San Francisquito Canyon). An EIR is required.

SEA DESCRIPTION: San Francisquito Canyon (SEA No. 19) possesses two populations of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), a species formerly present in Los Angeles, San Gabriel, and Santa Ana Rivers, and listed as endangered at both the state and federal levels. In San Francisquito Canyon, the fish is confined to permanent streams and pools below Drinkwater Reservoir and above Baird Canyon. Legally mandated water releases from Drinkwater Reservoir maintain the populations below the dam. Survival of the unarmored threespine stickleback is dependent upon preserving its habitat.

The watershed supplying San Francisquito Canyon was until recently relatively undisturbed. The hillsides support a dense cover of coastal sage scrub and chaparral. The San Francisquito stream course is mostly natural and maintains riparian woodland. Intermittent areas with surface water connect perennial streams during the rainy season. The natural vegetation along the intermittent portion of the stream slows heavy runoff during the rainy season, decreases destruction and siltation of habitat in downstream areas, and provides habitat for migration between populations.

The unarmored threespine stickleback populations in San Francisquito Canyon are the only ones for which the possibility exists to plan and control development in the majority of the watershed. This is certainly not true for populations in the Santa Clara River valley.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. The supplemental information makes no response to comment No. 10 (concerning unarmored threespine stickleback issues) of the November 5, 1995 SEATAC review; SEATAC needs to review the results of future arroyo and western spadefoot toad surveys.
2. Identify specific cumulative impacts to biological resources.
3. Everywhere in the document that proposes the development of a resource management plan, include the words "and implement" after "develop".
4. (1.0-3) Direct loss of sensitive riparian habitat must include alluvial scrub; wildlife corridor must be considered to have direct impacts.

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

5. (Page 1) The goal should be to avoid all impacts, not just "direct" impacts to the riparian habitat; (page 2) design criteria for free movement of animals must provide for a wider than 50 feet migration (access) corridor; (page 2) design criteria for revegetation program (1st paragraph) will be designed and reviewed by SEATAC, and (2nd paragraph) should develop and implement the removal of *Arundo*; (last blue page after 4.0-2, response 2) provide performance standards by which *Arundo* control will be documented; (blue page after 3.0-12) 150 feet is not an adequate buffer for protection of native resources against African clawed frog.
6. (First blue page, response 2) Discuss how and when the invasive animal management program will be developed; SEATAC will review this program.
7. Provide diagram and logic for both existing and proposed wildlife movement corridors; discuss to and from where these corridors lead; (3.0-6) be specific in discussion of wildlife corridors; discuss what exists and does not exist within San Francisquito Creek and what is this project's share of the impacts; impacts to wildlife corridor are listed as direct here and indirect in summary (1.0-3); this project will have significant impacts on wildlife corridor.
8. (2.0-6) Alluvial scrub is variable in composition and the on-site alluvial scrub may not be identical with "Riversidean" scrub; the on-site alluvial scrub meets criteria for sensitivity and must be considered a sensitive vegetative habitat; (blue page opposite 3.0-4, response 6) discuss if the alluvial scrub habitat is within the 100-year floodplain; this habitat is sensitive because it is rare (not because sensitive species are present) and the impacts to this habitat are to be considered significant; use of alluvial scrub by 'generalist' species is inaccurate (e.g., northern harrier or white-tailed kite) since the species is specific to this habitat utilization; (2.0-22) silvery legless lizard is difficult to locate and no definitive statement can be made concerning presence on-site; San Bernardino ringneck snake is not found only in leaf litter since they move above ground; include discussion of all candidate bat species within sensitive species section.
9. (blue page after 3.0-2, response 5) ruderal habitat has conservation value which is lost once developed and which a golf course does not possess; (blue page after 3.0-8, 3.3.1) statement should be that human presence will degrade (all) biological resources present (there is no need to qualify the kind of resources); (3.3.2) there are no data to support statement concerning cats; (second blue page after 3.0-12) pesticide use should be a last resort within the integrated pest management (IPM) and used only when other parts of plan do not work; provide criteria for when pesticides might be needed; SEATAC wants to review the IPM plan (to include rodent control plans since rodents provide food for raptors); the New York Audubon Society must be contacted for development of IPM plan.
10. (page 3.0-12&13, a-d) Remove the word "requested" before development and replace with "proposed".

ACTION TAKEN: Further SEATAC review is required; SEATAC to review response to Comments and Recommendations.

SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE JANUARY 8 1996 ITEM 3

BIOTA REPORT Dated September 7, 1995

Previous SEATAC meetings: October 2, November 6, and December 4, 1995

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the northwesternmost examples of this community.

The Santa Susana Mountains are the main representative of these low, dry interior mountain ranges in Los Angeles County. The core of this range is in good condition and has not been heavily disturbed by human use. These mountains are becoming isolated from surrounding natural areas by continued urban expansion in the San Fernando, Simi, and Santa Clarita Valleys. The Santa Susana Mountains have become an important wildlife corridor for gene flow and species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. SEATAC advises the Planning Department on General Plan provisions and assists in the implementation of General Plan.
2. It is SEATAC's conclusion that the implementation of the proposed project will have significant impacts on biological resources.
3. A new biota report reflecting current project design must be prepared with a separate response to comments section from all previous meetings at the beginning of report.

ACTION TAKEN: Further SEATAC review is required.

SEATAC REPORT AND COMMENTS

PROJECT 94-129 - SURFACE MINING OPERATION

SEATAC MEETING DATE JANUARY 8, 1996 ITEM 4

BIOTA REPORT Dated December 1995

Initial SEATAC meeting

PROPOSED PROJECT: 94-129. The proposed project is a surfacing mining operation of 43 acres on a 247 acres site. The project site is located within and adjacent to SEA No. 23 (Santa Clara River). An EIR is required.

SEA DESCRIPTION: Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. SEATAC Biota Report guidelines were not fully followed; submitted report was based on 1991 inventory and the information is out-of-date.
2. Sensitive species list is not current.
3. Figure 6 is incorrect and the project site is within essential habitat for the unarmored threespine stickleback.
4. This meeting does not count as one of the three SEATAC review meetings as a result of the inadequacy of the submitted report.

ACTION TAKEN: Further SEATAC review is required; new biota report (with current and up-to-date information) to be submitted.

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF MAY 6, 1996

(Approved June 3, 1996)

PERSONS IN ATTENDANCE:

SEATAC MEMBERS	REGIONAL PLANNING STAFF
Richard Friesen, PhD	Lee Stark
Tim Laughlin	Daryl Koutnik, PhD
Gary Wallace, PhD	
Carl Wishner	

Project 94-087 Representatives

Brian Arnold	(805) 494-6600
Paul Fromer	(619) 542-1611
Gloria Glenn	(805) 222-2594
Eric Sakowicz	(805) 494-6600
Tom Worthington	(805) 494-6600

MINUTES

MAY 6, 1996

AGENDA ITEMS

1. Friesen moved and Wishner seconded to approve the March 4, 1996 Minutes as written.

OLD BUSINESS

2. **Project 94-087** - See Attachment Item 2

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SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE MAY 6, 1996 ITEM 2

DRAFT SCREENCHECK EIR Dated March 25, 1996 and RESPONSES TO SEATAC COMMENTS, Not Dated

Previous SEATAC meetings: October 2, November 6, and December 4, 1995 and January 8, 1996

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the most northwestern examples of this community.

The Santa Susana Mountains are the main representative of these low, dry interior mountain ranges in Los Angeles County. The core of this range is in good condition and has not been heavily disturbed by human use. These mountains are becoming isolated from surrounding natural areas by continued urban expansion in the San Fernando, Simi, and Santa Clarita Valleys. The Santa Susana Mountains have become an important wildlife corridor for gene flow and species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. Maps and Tables need better identification; update the Table of Contents; SEATAC has previously made a number of comments which have not been addressed.
2. Without applicant assurance that Salt Creek will remain undisturbed in perpetuity in Ventura County, SEATAC considers wildlife movement to be significantly impacted by the proposed project design and requests that an alternative wildlife movement corridor be located within the Los Angeles County boundary of project.
3. Identify an alternative in the DEIR that will meet the SEA design compatibility criteria.
4. The mesic meadow habitat is significantly impacted by the proposed project; appropriate mitigation (avoidance being the first priority) must be included.
5. The proposed estate lots will significantly impact the Santa Susana Mountains SEA (No. 20); SEATAC recommends that these lots be removed from the project design.
6. A biological resources alternative project should be included in the DEIR (see 3 above).
7. Significance discussion should be on a regional basis and SEATAC significance thresholds (including for biological resources outside of the designated SEAs) should be reflected in the DEIR.
8. Analysis discussion is inconsistent; provide reasons why details in some discussions are not presented; some details of water reclamation plant are missing.
9. Biota report summary (page 12) should remove the word "cumulative" and replace with "project specific" (or include both) in regard to impacts
10. Response to SEATAC Comments did not fully address all of SEATAC's concerns; page 3 (comment 10) - the entire Santa Clara River watershed buffers the unarmored threespine stickleback habitat.
11. Provide complete discussion of bank stabilization (including map) in comparison with the 100-year flood boundary.
12. Oaks are treated as trees in discussion instead of a more appropriate habitat discussion; SEATAC needs to know the oak resource habitat evaluation (e.g., reproductive success).
13. Clearly identify in DEIR which biological impacts are considered to be significant; discuss phasing strategy as possible protection for biological resources.

ACTION TAKEN: No further SEATAC review is required; SEATAC wants to see complete Draft EIR; additional SEATAC comments may be submitted in writing during remainder of County EIR circulation period.

MINUTES OF THE SIGNIFICANT ECOLOGICAL AREA TECHNICAL ADVISORY COMMITTEE (SEATAC) MEETING OF JUNE 3, 1996

(Approved July 1, 1996)

PERSONS IN ATTENDANCE:

SEATAC MEMBERS	REGIONAL PLANNING STAFF
Jonanthan Baskin, PhD	Pamela Holt
Richard Friesen, PhD	Lee Stark
Frank Hovore	Daryl Koutnik, PhD
Gary Wallace, PhD	

Project 89-251/TR47927 Representatives

Christine Burton	(818) 578-7000
Bob Sims	(818) 578-7000

No representatives for Project 94-087 were present

MINUTES

JUNE 3, 1996

AGENDA ITEMS

1. Friesen moved and Hovore seconded to approve the May 6, 1996 Minutes as written.

OLD BUSINESS

2. **Project 89-251/TR47927** - See Attachment Item 2

3. **Project 94-087** - See Attachment Item 3

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07/25/96 12:53 FAX 805 288 1052 NEWHALL RANCH CO +++ IMPACT SCIENCES 002

SEATAC REPORT AND COMMENTS

PROJECT 89-251/TR 47927 - SUBDIVISION

SEATAC MEETING DATE JUNE 3, 1996 ITEM 2

SCREENCHECK DRAFT EIR Dated May, 1996

Previous SEATAC meetings: August 28, 1990, March 9 and July 6, 1992, April 3, and September 11, 1995

PROPOSED PROJECT: 89-251/TR 47927. The project is located in the Santa Monica Mountains, adjacent to the Ventura Freeway (Highway 101) and Las Virgenes Road. The project includes a zone change, oak tree permit, conditional use permit and a specific plan amendment to allow the development of 1 single family lot, 4 multi-family lots, 136 townhouse units, 11 commercial lots (281,000 square feet), and 3 open space lots (110 acres) on 207.5 acres. The site is located in SEA No. 12 (Palo Comado Canyon). Project requires an EIR.

SEA DESCRIPTION: The Palo Comado Significant Ecological Area (SEA No. 12) is one of the last examples of southern oak woodland/savannah of any significant size remaining in Los Angeles County. Other localities in the area support southern oak woodland on steep hillsides. However, the savannah type that is found in the Palo Comado Canyon area is on gently rolling slopes, and has an open grassy understory. Once widely distributed, this habitat has been widely utilized for agriculture and urban development.

The few remaining areas have been heavily impacted by grazing. Most native grasses and forbs have been replaced by Eurasian invasive species. In many cases, grazing cattle consume oak seedlings and prevent recruitment of new trees while older individuals continue to age and eventually die. Nevertheless, the trees support an abundant population of raptorial birds and woodpeckers. Large mammals and quail often utilize the watering troughs and saltlicks provided for cattle. The western gray squirrel is also found in these trees. The understory vegetation is utilized by grassland birds, especially migratory species.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. Good aerial photograph.
2. Area proposed for addition to SEA does not have comparable habitat value as that proposed for deletion.
3. Coastal sage scrub should be considered as sensitive in Los Angeles County (California gnatcatcher habitat recorded as far west and north as Moorpark) and treated the same as coastal sage scrub covered by NCCP program; include coastal sage scrub as a sensitive habitat and provide appropriate analysis and mitigations.

SEATAC COMMENTS AND RECOMMENDATIONS (continued):

4. U.S. Fish & Wildlife sensitive species listings should be updated to February 1996 Federal Register.
5. Butterfly survey not comprehensive; survey should include report of food plant availability; bat species evaluation should be updated (e.g., pallid bat probably occurs on project site).
6. SEATAC does not recommend the current proposed project design because the oak woodland resource is critical to the viability of the SEA; oak woodland resource is the most unique part of the SEA.
7. Wildlife corridors are relevant only for surveyed species (not applied only to generalist species); both grassland and oak resource habitats contribute to the value of the wildlife corridor.
8. Trails discussion does not include the effects of increased human use traffic.
9. *Quercus lobata* must be included in oak tree replanting efforts if any of this species is removed by project.
10. Bibliography of Biota Report (Appendix G) should correct typographical errors (e.g., Jim Hickman for "Nickman", Abrams 1923-1960).
11. SEATAC prefers Alternative 3 ("Commercial Uses") over the proposed project because there are less impacts to the SEA and that residential uses adjacent to the SEA would have greater impacts than commercial uses.

ACTION TAKEN: No further SEATAC review is required.

SEATAC REPORT AND COMMENTS

PROJECT 94-087 - NEWHALL RANCH SPECIFIC PLAN

SEATAC MEETING DATE JUNE 3, 1996 ITEM 3

PARTS OF DRAFT NEWHALL RANCH SPECIFIC PLAN Dated March 25, 1996

Previous SEATAC meetings: October 2, November 6, and December 4, 1995, January 8, and May 6, 1996

PROPOSED PROJECT: 94-087. The project proposes to develop 24,700 housing units, 490 acres of mixed use, 65 acres of commercial uses, 200 acres of business park, 35 acres of visitor serving uses on a total of approximately 12,000 acres. 3,530 acres of open space and 670 acres of river corridor open area are also proposed as well as 215 acres of golf course and a waste water treatment facility. The project site is located within SEA No. 20 (Santa Susana Mountains) and SEA No. 23 (Santa Clara River).

SEA DESCRIPTIONS: The Santa Susana Mountains (SEA No. 20) are one of several relatively small ridges that form the Transverse Ranges and blend eastward into the larger San Gabriel and San Bernardino Mountains. The Santa Monica Mountains are also part of this system and form a coastal barrier shielding the interior ridges from the direct influences of moist marine air, making these interior ridges drier than the coastal ones. The vegetation of the Santa Susana Mountains consists of coastal sage scrub on south-facing slopes, dense chaparral on north-facing slopes, and oak, walnut and riparian woodlands in valleys. The oak woodland communities are extremely diverse, supporting six species of oaks. These include coast live oak (*Quercus agrifolia*), valley oak (*Q. lobata*), canyon live oak (*Q. chrysolepis*), scrub oak (*Q. berberidifolia*), interior live oak (*Q. wislizenii*), and a single known location of Palmer's oak (*Q. palmeri*). The latter species is known in Los Angeles County only from this area. The walnut woodlands are frequently found in canyons of intermittent streams and consist primarily of California black walnut (*Juglans californica*), flowering ash (*Fraxinus dipetala*), Mexican elderberry (*Sambucus mexicana*), and coast live oak. Fires appear to promote the expansion of walnut woodlands. Unusual California walnut-flowering ash woodlands occur at mid-elevations within canyons of the north slopes. This community appears to be unique to the Santa Susana Mountains. The bigcone spruce (*Pseudotsuga macrocarpa*)-canyon live oak forest at higher elevations represents one of the most northwestern examples of this community.

The Santa Susana Mountains are the main representative of these low, dry interior mountain ranges in Los Angeles County. The core of this range is in good condition and has not been heavily disturbed by human use. These mountains are becoming isolated from surrounding natural areas by continued urban expansion in the San Fernando, Simi, and Santa Clarita Valleys. The Santa Susana Mountains have become an important wildlife corridor for gene flow and species movement between the San Gabriel and Santa Monica Mountains via the Simi Hills.

SEA DESCRIPTIONS (continued): Santa Clara River (SEA No. 23) is so designated because it accommodates the habitat of the unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*). The reason the unarmored threespine stickleback has been able to survive in the Santa Clara River is that its habitat has not been disturbed. The vegetation consists of fresh water marsh, coastal sage scrub, oak woodland, and riparian woodland communities. The primary concern for the survival of the unarmored threespine stickleback is the loss of suitable habitat. It requires clean, free-flowing perennial streams and ponds surrounded by native vegetation.

The entire watershed of the Santa Clara River should be considered as a buffer zone. No developments should be allowed that will change natural drainage patterns or increase runoff and water pollution.

SEATAC COMMENTS AND RECOMMENDATIONS:

1. The full Specific Plan should have been provided to SEATAC.
2. Bridges crossing river will have large scale impacts to sensitive species through the disruption of suitable habitat for least Bell's vireo and southwestern flycatcher.
3. The estate lots must be removed from SEA No. 20.
4. SEATAC should forward a letter to Ventura County planning authorities alerting them to the vital nature of the Salt Creek and Santa Clara River junction as wildlife corridor.
5. SEATAC recommends that all new grading activities within the High Country be prohibited (change in Permitted Uses Matrix).

ACTION TAKEN: No further SEATAC review of Specific Plan is required; SEATAC review of future proposed projects within SEA Nos. 20 & 23 is required.

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Appendix: RESPONSES TO SEATAC COMMENTS

SEATAC Meeting 5 December 1994
Comments and Recommendations: Biological Constraints Analysis October 13, 1994

Comment 1. An overlay of sensitive species over the identified sensitive habitats is suggested; sensitive habitats are not completely identified in priorities; need more detailed discussion of sensitive species; explain how the sensitive species information was used to set project priorities/sensitivities; update sensitive species since not all currently listed species are discussed.

Response 1. A map depicting the locations of all sensitive species is included as Appendix N of the Biota Report (EIR Appendix 4.6); sensitive habitats and sensitive species are described in detail in Section II. g. beginning on page 49 of the Biota Report; explanation of how sensitive biological resources were considered in the design of the Specific Plan is provided in Section II. h. (4) beginning on page 117 of the Biota Report; all currently listed species are considered in Section II. g. beginning on page 49 of the Biota Report.

Comment 2. Plant species should be arranged by plant family; plant names should be updated to reflect current taxonomy found in Jepson Manual (1993).

Response 2. In Appendix G of the Biota Report, a complete list of vascular plants observed on the Newhall Ranch site is provided arranged alphabetically by plant family; all plant names used in the Biota Report reflect current taxonomy as indicated in Jepson (1993), with the possible exception of certain sensitive species which may follow taxonomy used by state and federal resource agencies or CNPS (Skinner and Pavlik, 1994).

Comment 3. Corridor discussion too general; provide details of reasoning in discussion and be specific concerning currently available information; include in discussion use by endangered species; objectives of corridors should be stated; include discussion of off-site Ventura County corridor connections; include discussion of genetic exchange within species (e.g., *Quercus lobata*); animals do cross over ridge lines.

Response 3. Wildlife movement corridors are discussed in Section II. h. (1) beginning on page 108 and Section II. h. (3) (a) on page 115 of the Biota Report; not all of the details mentioned in the comment have been discussed given that the analysis is at a Specific Plan level of detail rather than that required for a subdivision, or tract map. As indicated in the

Draft EIR, Biota Section 4.6, regional wildlife conservation is based in part on connectivity, or the ability of an area to provide for wildlife movement and connections to other large blocks of natural open area. From this perspective, portions of the Newhall Ranch occupy an important location (see EIR Figure 4.6-4, Regional Wildlife Movement).

The primary connectivity of the Newhall Ranch is to large undeveloped areas of open area to the south and west in the Santa Susana Mountains, including the recently dedicated Santa Clarita Woodlands Park. The eastern end of the Santa Susana Mountains is potentially connected to several other surrounding undeveloped areas, including the Simi Hills and the Santa Monica Mountains to the south. However, these connections are limited by intervening urban development in Simi Valley, the San Fernando Valley, other communities in Ventura and Los Angeles counties, and the existing State Route 118 (SR-118) and the U.S. 101 freeway. Connections between the Santa Susana Mountains and the Angeles National Forest to the north and east are also problematic because of the presence of Interstate 5 (I-5) and State Route 14 (SR-14) freeways, and because of urban development in the City of Santa Clarita, unincorporated portions of Los Angeles County and the San Fernando Valley. Such barriers act to limit connectivity and the potential movement of species between these large blocks of open area.

In addition, wildlife move between large blocks of open area that occur in a north/south orientation west of Interstate 5. Important wildlife movement corridors exist between the Newhall Ranch Specific Plan area and the Santa Clara River. The Santa Clara River is an important riparian corridor that connects the Specific Plan area with habitat to the east and west. The River and its tributaries serve as connections between the upland habitats to the north and south of the River, as well as upstream and downstream. Large expanses of undeveloped land in the Santa Susana Mountains to the south allow for the movement of wildlife down to the River and back primarily through a series of ridges and canyons (e.g., Salt Creek Canyon, Rawhide Canyon, and to a lesser extent Potrero Canyon). North of the River, wildlife movement from the surrounding hills to the River is somewhat facilitated by existing canyon connections (e.g., San Martinez Grande Canyon and to a lesser degree Chiquito Canyon), although SR-126 poses a barrier to wildlife movement. Proposed Caltrans improvements to SR-126 in Ventura County include the provision of three agricultural undercrossings which may function as wildlife undercrossings. Connection to the west along the Santa Susana Mountains and rugged terrain of the lower foothills above the River is still good due to lack of development. Viable upland connections to the east are very restricted by the I-5 freeway, Stevenson Ranch, the Magic Mountain Theme Park, and the continued development of the Santa Clarita Valley.

In addition to the east/west corridor that occurs along the Santa Clara River, other large blocks of open area occur in a north/south orientation west of Interstate 5. These large open areas are also important from a regional conservation context. Few animals typically maintain a specific movement or migration corridor. Rather, most large mammals move in patterns throughout large territories in response to feeding and other life history requirements. Animals with large home range sizes require large contiguous open areas to facilitate their life history requirements and, as such, the large areas of open area that occur west of Interstate 5 are of substantial biological importance.

Comment 4. There is evidence for some species mis-identifications in the Dames & Moore report (e.g., *Dipodomys heermanni* is not known from south of the San Joaquin Valley); any discrepancies in details (e.g., agricultural and disturbed lands are not dominant habitats, page 9; unclear why coastal sage scrub is not likely habitat for California gnatcatcher, page 13) need to be corrected.

Response 4. Wildlife species observed on the Newhall Ranch site are correctly identified in Appendix H of the Biota Report; all references to agricultural and disturbed lands being dominant habitats has been deleted; as indicated in the Biota Report (subsection II. g. 2. (c)), the Newhall Ranch property encompassed in this study contains a large acreage of coastal sage scrub classified by CDFG as Venturan coastal sage scrub (Holland 1986). Although this sage scrub habitat is within the historic range of the species, significant populations of this species have all been extirpated from Los Angeles County (USFWS 1993b) and the Ranch property is outside of its known current distribution. In 1995, a coastal California gnatcatcher was recorded from the Moorpark area in Ventura County. In 1996, there have been two pairs of gnatcatchers recorded in this same area, and a nest has been recently discovered (Greaves, personal communication, 1996). In addition, there have been reports of these birds from the Bonnelli Regional Park and west of Cal Poly State University, Pomona campus areas in eastern Los Angeles County. It is not known whether the current breeding range will expand into the Santa Susana Mountains. Several of the RECON personnel conducting the 1995 field surveys on the Newhall Ranch have permits from the USFWS to survey for this species and are qualified to recognize the bird. No individuals of this species were sighted or heard on the property. Based on these observations and the current geographic range of this bird, the likelihood of occurrence of the coastal California gnatcatcher on the Newhall Ranch is low.

Comment 5. The resumes or qualifications of biological field consultants need to be provided.

Response 5. Resumes of biological field consultants are provided in Appendix F of the Biota Report.

Comment 6. Discussion of potential impacts must also include reference to sensitive species that may occur on the project site.

Response 6. The discussion of potential impacts includes reference to sensitive species that may occur on the Specific Plan site in Section III. b. (3) beginning on page 134 of the Biota Report.

Comment 7. The written constraints analysis is disjointed and the independent studies are not adequately tied together.

Response 7. Comment noted, the Biota Report ties the various studies together. The Biota Report was prepared in September, 1995 and reviewed by SEATAC in October, November, and December 1995, and January and May, 1996.

Comment 8. Habitat value discussion is misleading (e.g., mixed chaparral); provide accurate discussion of wildlife use in each habitat.

Response 8. A discussion of wildlife use in each habitat type (including mixed chaparral) is presented in Section II. f. (2) (b) beginning on page 25 of the Biota Report.

Comment 9. For the SEATAC Biota Report, identify adjacent landowners and include water quality and hydrology analyses (especially for the proposed wastewater treatment plant) with a discussion of any potential impacts to biota.

Response 9. For a discussion of water quality and hydrology analyses, please refer to EIR Section 4.2, Flood; a complete list of adjacent landowners has not been identified, but known landowners include The Newhall Land and Farming Company to the west and the Bureau of Land Management to east.

Comment 10. For planning purposes, SEATAC considers the entire Santa Clara River watershed to be SEA buffer region.

Response 10. It is agreed that the County's description of SEA 23 indicates that the entire watershed of the Santa Clara River should be considered as a buffer zone. The cumulative impact analysis presented in Draft EIR Section 4.6, Biota, (and the Biota Report) discusses cumulative development which is proposed for the Santa Clarita Valley portion of the Santa Clara River watershed. The flood related effects of cumulative development in the watershed area are discussed in EIR Section 4.2, Flood.

Comment 11. SEATAC recommends that they review each development phase proposed in the finalized Specific Plan; SEATAC recommends that they conduct a field visit to the project site (to be coordinated between Newhall Land & Farming and the L.A. County Planning Department).

Response 11. Under the existing County of Los Angeles process, SEATAC would have a continuing role in reviewing future actions in SEAs. SEATAC has taken two field visits to the Newhall Ranch Specific Plan site.

SEATAC Meeting of 2 October 1995
SEATAC Comments and Recommendations: Biota Report September 7, 1995

Comment 1. Need to know overall impacts to habitat by proposed land use designations; habitat in low-lying areas will be fragmented by proposed land uses.

Response 1. SEATAC members were provided with a clear mylar of the Land Use Plan which can be placed over the vegetation map to permit review of the impacts of certain land uses on vegetation types.

Comment 2. Golf course has little biological value and should not be considered part of conservation plan; provide the river wildlife corridor keyed to the corridor map.

Response 2. As shown on Figure BIO-5 in the Biota Report, the golf course is no longer considered a part of the conversation plan; the entire River Corridor is considered a wildlife corridor.

Comment 3. SEATAC requests that applicant agree to SEATAC review of all future tract maps even if severed from the SEA as a result of other land divisions.

Response 3. SEATAC review policy is established by the Regional Planning Commission and is uniform for all projects. Under the existing County of Los Angeles process, SEATAC would have a continuing role in reviewing future actions in SEAs.

Comment 4. Piecemeal and general use of significance conclusions is unacceptable; support with reasons all significance conclusions; separate significance determination before and after mitigations; define significance criteria; significant impact analysis needs to be reevaluated; SEATAC concludes that biological impacts (especially loss of wildlife habitat) of project are significant.

Response 4. Section III. Project Impacts beginning on page 123 has been revised; all significance conclusions are supported with reasons in Section III.; significance criteria are defined in Section III. a. on page 123 of the Biota Report; significant impact analysis has been reevaluated in Section III., see Section III.

Comment 5. SEATAC would like to see property ownership both up and down the Santa Clara River.

Response 5. A complete list of adjacent landowners has not been identified. Section 2.0 of the EIR, Environmental and Regulatory Setting, discusses environmental and regulatory conditions, including land uses in the vicinity of the site.

Comment 6. SEATAC wants applicant to make commitment to Los Angeles County concerning perpetuity of wildlife corridor connection of Salt Creek with Santa Clara River.

Response 6. The applicant has no plans to develop the portion of Salt Creek that lies in Ventura County. That land is zoned in Ventura County for agricultural uses. Based on this information, it can only be presumed that this portion of Salt Creek will remain in open agricultural land for the foreseeable future..

Comment 7. Provide details of mammal trapping concerning trap sensitivity for *Perognathus longimembris brevinasus* (Los Angeles pocket mouse); southern willow riparian woodland is strange habitat for *Dipodomys agilis*; check proper infraspecific identification of *Calochortus clavatus*.

Response 7. Details of mammal trapping relative to trap sensitivity are provided in Section II. f. (2) (a) on page 22 of the Biota Report; Section II. f. (2) (b) on page 43 has been revised, although *Dipodomys agilis* likely occurs on open terrace areas adjacent to the river channels which were mapped as southern willow riparian woodland; Section II. g. (1) (b) on page 57 has been revised.

Comment 8. SEATAC to review Draft EIR during County circulation, including alternatives analysis and conservation plan; document whether conservation plan will change if alternative project selected.

Response 8. During the internal County circulation period of the Screencheck Draft EIR, SEATAC was provided with portions of the Specific Plan including the Resource Management Plan (part of Specific Plan Chapter 2), Development Regulations (Specific Plan Chapter 3), Design Guidelines (Specific Plan Chapter 4), and Glossary (Specific Plan Chapter 6). SEATAC was also provided with portions of the County Screencheck Draft EIR including EIR Section 4.6, Biota, EIR Appendix 4.6 (Biota Report), EIR Section 4.2, Flood, and Section 8.0, Alternatives. Changes in the conservation aspects of the project under different alternatives are discussed in the EIR Section 8.0, Alternatives.

Comment 9. Elimination of grassland habitat (which does function as wildlife habitat) will diminish value of other adjacent habitats; preservation of riparian corridor should be given highest conservation priority; width of riparian corridor is crucially important; disturbed habitats may still have conservation value; terraces above riparian corridor may also have habitat value with appropriate vegetation.

Response 9. The Draft EIR (and Biota Report) indicates that the overall loss of natural habitat is a significant impact. The Specific Plan has been designed in such a way that primary riparian habitats and corridors in the Santa Clara River and in Salt Creek are being preserved as part of the Specific Plan, and any riparian habitats impacted by the Specific Plan would be replaced.

Comment 10. Proposed Specific Plan must include SEA design compatibility criteria.

Response 10. See EIR Appendix 2.0.

Comment 11. Applicant should be willing to allow SEATAC more than the maximum of three reviews of biota report.

Response 11. The Specific Plan has been discussed as a formal agenda item in seven (7) SEATAC meetings, the first on December 5, 1994, including one meeting to review the Biota Constraints Report, four meetings to review the Biota Report, one meeting to review EIR sections, and one meeting to review portions of the Specific Plan.

SEATAC Meeting of 6 November 1995
SEATAC Comments and Recommendations: Biota Report September 7, 1995

Comment 1. All grading impacts should be removed along wildlife corridors.

Response 1. The primary wildlife corridors on the site, the Santa Clara River and Salt Canyon corridors, would be preserved as part of the Specific Plan. Grading is proposed in the more minor corridors, or within corridors with limited access. The Draft EIR concludes that the impact on the ability of animals to move across portions of the site is significant.

Comment 2. Provide comparison between General Plan zoning density and density of proposed plan.

Response 2. Alternative 2 of the Draft EIR compares developing the site under current General Plan designations with developing the site as proposed with the Specific Plan.

Comment 3. *Arundo* control must be included in the Resource Management Plan.

Response 3. Removal of non-native species such as giant cane (*Arundo donax*) is included in mitigation measure BIO 15 provided on page 216 in Section IV. b. (1) (a) 2. of the Biota Report.

Comment 4. Provide details of bank stabilization, include evaluation of impacts from construction and straightening of channels.

Response 4. Details of the proposed bank stabilization are provided in Section III. b. (3) (b) on page 156 of the Biota Report. Also see EIR Section 4.2, Flood. Detailed construction impacts will be determined as part of future subdivisions, at which time additional environmental review will be required.

Comment 5. Summarize changes in significant impacts.

Response 5. A summary of significant impacts is provided in Section I. d. on page 12 of the Biota Report.

Comment 6. Implementation of proposed plan should make no changes to water quality or water quantity.

Response 6. See EIR Section 4.2, Flood for discussion of water quality and quantity.

Comment 7. Provide responses to December 5, 1994 SEATAC Comments and Recommendations.

Response 7. Responses to the December 5, 1994 SEATAC Comments and Recommendations are provided in this document, with references to the Biota Report and EIR.

SEATAC Meeting of 8 January 1996
SEATAC Comments and Recommendations: Biota Report September 7, 1995

Comment 1. SEATAC advises the Planning Department on General Plan provisions and assists in the implementation of General Plan.

Response 1. This comment is not related to the content of the subject Biota Report. SEATAC's role the County review process is determined by the County and not by the applicant. Therefore, no response is necessary.

Comment 2. It is SEATAC's conclusion that the implementation of the proposed project will have significant impacts on biological resources.

Response 2. The conclusions of the Biota Report are consistent with SEATAC's conclusion of significance. In numerous locations within the Report a conclusion of significance is reached. Specific language from the Biota Report includes: (1) the impact potential (post mitigation) of implementation of the Newhall Ranch Specific Plan on the diminishment of habitat for wildlife or plants is considered significant; (2) the impact potential (post mitigation) of implementation of the Newhall Ranch Specific Plan on the movement of resident wildlife species is considered significant due to the reduction in open land available for wildlife movement between the River and upland areas; (3) the project would significantly impact (post mitigation) several sensitive wildlife species generally considered to occur in upland habitats. Given the criteria set forth in Subsection 4.a., Significance Threshold Criteria, this project would significantly affect (before mitigation) endangered, rare or sensitive plants or animals; (4) the proposed project has the potential to significantly impact several sensitive habitat types (some before and some after mitigation) that include Venturan coastal sage scrub, valley oak woodland/savanna, southern willow scrub, southern cottonwood-willow riparian forest and valley freshwater marsh and ponds; (5) implementation of the Newhall Ranch Specific Plan has the potential to indirectly impact (post mitigation) adjacent natural areas and sensitive biological resources that occur proximal to the site. This would occur as a result of increased use of the Santa Clara River and upland areas by humans and domestic animals, increased use of adjacent natural areas by animals typical of an urban environment, and the potential effects of light, glare, and sediment- and urban pollutant-laden runoff, unless mitigated. Given implementation of the mitigation measures identified above, indirect impacts would be reduced and or eliminated. However, others would remain significant; (6) neither implementation of the Newhall

Ranch Specific Plan nor any other similar large scale project proposed on the edge of the existing urban environment can mitigate from a biological perspective the permanent conversion of large blocks of open area. It is for this reason that the cumulative impact is considered unavoidably significant.

Comment 3. A new biota report reflecting current project design must be prepared with a separate response to comments section from all previous meetings at the beginning of the report.

Response 3. A revised Biota Report was submitted to SEATAC for the May 6, 1996 meeting. Included with the report was a separate response to comments section from previous meetings.

SEATAC Meeting of 6 May 1996

SEATAC Comments and Recommendations: Biota Report September 7, 1995 as revised, Draft Screencheck EIR Dated March 25, 1996 and Responses to SEATAC Comments, Not Dated

Comment 1. Maps and Tables need better identification; update the Table of Contents; SEATAC has previously made a number of comments which have not been addressed.

Response 1. The maps and tables in the report have been updated for better identification as has the Table of Contents. The Draft EIR (including its Appendix 4.6) have responded to all specific comments raised by SEATAC.

Comment 2. Without applicant assurance that Salt Creek will remain undisturbed in perpetuity in Ventura County, SEATAC considers wildlife movement to be significantly impacted by the proposed project design and requests that an alternative wildlife movement corridor be located within the Los Angeles County boundary of project.

Response 2. The revised Biota Report (Appendix 4.6 of the Draft EIR) and EIR Section 4.6, Biota, conclude that the impact potential of implementation of the Newhall Ranch Specific Plan on the movement of resident wildlife species is considered significant due to the reduction in open land available for wildlife movement between the River and upland areas. The Draft EIR contains alternatives which include areas large enough to be considered alternative wildlife movement corridors (see EIR Alternatives 3, 5 and 6).

Comment 3. Identify an alternative in the DEIR that will meet the SEA design compatibility criteria.

Response 3. The applicant believes that the Specific Plan as proposed meets the County SEA Design Compatibility Criteria (See Draft EIR Appendix 2.0). The Draft EIR contains alternatives which have similar or smaller development footprints than the proposed Specific Plan which would also meet the SEA Design Compatibility Criteria (see Alternatives 2, 3, 4, 5 and 6).

Comment 4. The mesic meadow habitat is significantly impacted by the proposed project; appropriate mitigation (avoidance being the first priority) must be included.

Response 4. The Biota Report and Draft EIR Section 4.6, Biota, conclude that the impact to the mesic meadow habitat is significant. The Draft EIR indicates as a mitigation measure that riparian resources impacted by buildout of the Newhall Ranch Specific Plan shall be restored with similar habitat at the rate of one acre replaced for each acre lost.

Comment 5. The proposed estate lots will significantly impact the Santa Susana Mountains SEA (No. 20); SEATAC recommends that these lots be removed from the project design.

Response 5. The Draft EIR Section 4.6, Biota, states "plans indicate that construction of the estate lots and roads would disturb approximately 45 acres of natural habitat within the SEA." Additional impacts would occur as a result of the indirect impacts of human use that are discussed later in this report section. However, the County General Plan allows development in SEAs, and the estate lots would not significantly impact SEA 20 given the low intensity of development associated with them.

Comment 6. A biological resources alternative project should be included in the DEIR (see 3 above).

Response 6. The Draft EIR analyzes six on-site alternatives, four of which (Alternatives 3, 4, 5, and 6) are intended to reduce the biological impacts of the Specific Plan.

Comment 7. Significance discussion should be on a regional basis and SEATAC significance thresholds (including for biological resources outside of the designated SEAs) should be reflected in the DEIR.

Response 7. The Draft EIR and Biota Report present a discussion regarding the impact of the project on a regional basis (See EIR Section 4.6, Biota, Subsections 3. b. (7) Regional Conservation Context, and 6. Cumulative Impacts), and conclude that the Specific Plan is regionally significant. The significance thresholds used in the Draft EIR are based on the California Environmental Quality Act (CEQA) Guidelines. Communication with the County Biologist indicated that the County SEATAC does not maintain its own significance thresholds for use in this EIR.

Comment 8. Analysis discussion is inconsistent; provide reasons why details in some discussions are not presented; some details of water reclamation plant are missing.

Response 8. With the exception of the impacts of the proposed water reclamation plant (WRP), the Draft EIR employs a level of detail that is appropriate for analysis of a Specific Plan. Section 5.0 of the Draft EIR specifically addresses the impacts associated with the WRP at a project-level of detail. See that section for the required analysis.

Comment 9. Biota report summary (page 12) should remove the word "cumulative" and replace with "project specific" (or include both) in regard to impacts.

Response 9. This page now reads "the project's individual and cumulative impacts on the site's and the regional biotic environment are considered significant impacts that cannot be mitigated."

Comment 10. Response to SEATAC Comments did not fully address all of SEATAC's concerns; page 3 (comment 10) - the entire Santa Clara River watershed buffers the unarmored threespine stickleback habitat.

Response 10. Regarding page 3 (comment 10) above, that response now reads "[i]t is agreed that the County's description of SEA 23 indicates that the entire watershed of the Santa Clara River should be considered as a buffer zone." Please refer to EIR Sections 4.2, Flood, and 4.6, Biota, for a complete discussion of how this Specific Plan could impact the Santa Clara River watershed.

Comment 11. Provide complete discussion of bank stabilization (including map) in comparison with the 100-year flood boundary.

Response 11. Section 4.2, Flood, of the Draft EIR, Subsection 5. a. indicates that the locations of open and closed drainage systems, inlets, outlets, bank stabilization, NPDES water quality basins are shown in EIR Figure 4.2-5, Conceptual Backbone Drainage Plan, and the FIA 100 year flood plain boundary is shown on Figure 4.2.2, FIA 100 Year Flood Plain. EIR Subsection 5. b. indicates that bank stabilization would occur on approximately 30 percent of the southern side and 80 percent of the northern side of the River Corridor to protect adjacent development from erosion. Bank stabilization is proposed to be ungrouted rock in all areas except at outlet structures, access ramps, bridge abutments, and only in other areas where it is expected that grouted rock or reinforced concrete will be required to meet Los Angeles County Department of Public Works standards for public health and safety. Increased stabilization (e.g., concrete stabilizers within the channel bottom) in the River Corridor will not be necessary as velocities in the River will not be materially increased as a result of the Specific Plan. See EIR Section 4.2, Flood, for additional detail.

Comment 12. Oaks are treated as trees in discussion instead of a more appropriate habitat discussion; SEATAC needs to know the oak resource habitat evaluation (e.g., reproductive success).

Response 12. The Draft EIR and Specific Plan now refer to oak resources. The appendix to the Biota Report and the Draft EIR (Appendix 4.6) both contain a complete survey of the site's oak resources. In addition, the Biota Report and the Draft EIR (Section 4.6, Biota) both discuss the site's oak resources, including general conclusions regarding health.

Comment 13. Clearly identify in the DEIR which biological impacts are considered to be significant; discuss phasing strategy as possible protection for biological resources.

Response 13. The Draft EIR and the Biota Report (EIR Appendix 4.6) clearly indicate which impacts are significant. Also, please refer to Response 2 above from the SEATAC Meeting of January 8, 1996. Regarding the phasing strategy as possible protection for biological resources, the applicant has not developed a phasing program for the Specific Plan.

SEATAC Meeting of 3 June 1996
SEATAC Comments and Recommendations: Draft Newhall Ranch Specific Plan dated March 25, 1996

Comment 1. The full Specific Plan should have been provided to SEATAC.

Response 1. The portions of the Screencheck Draft Specific Plan that were provided to SEATAC include: Chapter 2, Development Plan (including the Resource Management Plan); Chapter 3, Development Regulations; and the Specific Plan Consistency Analysis. SEATAC will be provided with the complete Draft Specific Plan for their review as part of the EIR public review period.

Comment 2. Bridges crossing the river will have large scale impacts to sensitive species through the disruption of suitable habitat for least Bell's vireo and southwestern flycatcher.

Response 2. The Draft EIR indicates that potential impacts to least Bell's vireo and southwestern flycatcher can be mitigated to below a level of significance as outlined in the Resource Management Plan.

Comment 3. The estate lots must be removed from SEA No. 20.

Response 3. This comment is a recommendation of SEATAC and is not directed at the content of the EIR or Biota Report. Therefore, no response is necessary.

Comment 4. SEATAC should forward a letter to Ventura County planning authorities alerting them to the vital nature of the Salt Creek and Santa Clara River junction as wildlife corridor.

Response 4. This comment is a recommendation of SEATAC and is not directed at the content of the EIR or Biota Report. Therefore, no response is necessary.

Comment 5. SEATAC recommends that all new grading activities within the High Country be prohibited (changed in the Permitted Uses Matrix).

Response 5. This comment is a recommendation of SEATAC and is not directed at the content of the EIR or Biota Report. Therefore, no response is necessary.

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