

# ***California Native Plant Selection and Display for the Home Gardener and Professional Landscaper in the Monterey Bay Region***

**University of California, Santa Cruz Arboretum**  
**Brett Hall, Director of Horticulture and Living Collections**  
**Rick Flores, Curator of Native Collection**

The major objectives of the grant were:

- To develop better design and interpretation for the native plant areas in the Arboretum.
- To create a central California coastal bluff and maritime chaparral display
- To enhance the native plant collections through field collecting and other sources
- To distribute Arboretum selected forms of California natives more widely
- To build closer ties with local native plant growers and groups

The underlying goal for all this was to elevate the importance of our work with native plants so that native plant horticulture continues as a principal feature of the UCSC Arboretum. A special focus was the selection and display of natives suitable for growing in the Monterey Bay Region. We plan to continue this into the future.

*This project was co-funded by the Stanley Smith Horticultural Trust and the Community Foundation of Santa Cruz County*

## **Design & Interpretation Objective**

The Arboretum is making plans to develop 50 acres of land to California natives. We chose to first emphasize our design efforts on the 2 acre Entrance Native Garden because of its visibility and proximity to the “main hub” of the Arboretum. The Entrance Native Garden serves both as a repository and exhibit place for unusually attractive individuals found among our native species. Its functions include the encouragement of interest in our native flora, provision of a resource for plant breeders, and promotion of landscape design utilizing native plants. The Slosson grant made possible beautification, collection enhancement, and long range planning in this garden. While design and site planning were not the biggest part of the grant, we developed an enhancement design plan for the Entrance Native Garden. This proposal is appended to this document<sup>1</sup>. We presented this plan to the Campus Design and Review Board in March 2001 where it was enthusiastically approved. Now, we are developing cost estimates and working drawings for components of the design and have begun fund raising to develop the plan on the

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<sup>1</sup> Landscape Improvement Plan for the California Native Plant Garden at the Entrance to the Arboretum, University of California at Santa Cruz, Russell A. Beatty, ASLA, Landscape Architect

ground.<sup>1</sup>

The long Range Plan is displayed at the Entrance to the Garden near Norrie's Gift shop.

The other native sections make up the lion's share of Arboretum acreage dedicated to California natives. While thorough design efforts in these other sections was outside the scope of this grant, modest preparations for further site planning have gone forward. An additional Grant, *Master Planning a California Native Horticultural Teaching Garden at the UCSC Arboretum*, was awarded by the Slosson Foundation and is currently in progress for these areas.

One of our native sections occupies 11 acres in the northwestern portion of the Arboretum. By virtue of the current plantings, lay of the land, and local interest, we are identifying this area as the Northern California Province, focusing on natives from the San Francisco Bay region, North Coast Ranges, Klamath Ranges and the Sierra Nevada. The concept is for wild gardens, featuring plant communities, habitats, and ecological themes that combine species from different geographic areas within northern California. For example, woodland, riparian, conifer forest, mixed evergreen, Ponderosa pine, prairie, various chaparral and bushland communities will be represented. Localized regional themes, and specialized habitats and niches will be integrated into the overall design.

The third area for natives is contiguous with the Northern California Province, and is jointly-managed with the UCSC Natural Reserve, part of the Division of Natural Sciences. This area is reserved for natives from California's Central Western Province, the region extending from the Santa Cruz Mountains through the South Coast Ranges to San Simeon along the coast in San Luis Obispo County, or possibly as far south as Point Conception in Santa Barbara County. The California Central Western Province may also feature a California Channel Island garden because of the importance of Channel Island natives to horticulture, and because of the Arboretum's horticultural introductions of Channel Island plants. Other regions to receive much attention are the Santa Cruz Mountains, Santa Lucia Mountains, coastal bluff and coastal scrub communities, closed-cone conifer habitats, Monterey Bay area maritime chaparral, and the San Benito Range, among others. Endemics, endangered and threatened species, dominant species in local communities, exceptional forms of almost any species with horticultural value, riparian habitats, serpentine, populations of disjoints, and a host of other themes will receive special emphasis.

Elvenia J Slosson Funds allowed the site planning and implementation of a memorial bench in the California Central Western Province for the late UCSC Professor, Ken Norris. Funding for the bench was shared with the Campus Natural Reserve. We placed the bench above a seasonal creek in the Moore Creek watershed and have begun planting a canyon woodland with mixed oak species, bay trees, California nutmeg, elderberries, and many other forest and chaparral species that occur in our region. The dedication for the Ken Norris Bench took place on Saturday September 8, 2001.

Stanley Smith Funds enabled us to install interpretive signs and directional signs through the native plant areas. A large-sized information board made for directional signs was finished and is being installed near the main offices. This directory informs people where to find different

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gardens. Rustic wooden signs identifying theme gardens are almost complete throughout the native areas. The labeling and relabeling of nearly 2000 individual native plants for the public is ongoing.

With the help of the Slosson Funds we were able to link our Hummingbird Trail from the Australian and South African Garden to the Entrance Native Garden and completed a self-guided tour brochure for the walk. All the educational work we have accomplished with Slosson funds is being incorporated into our continuing work with k-12 and University classes that visit the Arboretum.

### **Coastal Bluff & Maritime Chaparral Display Objective**

The bluffs along the shores of central California coast are a beautiful and special part of our natural heritage. Parts of the central coast vie for the most stunning scenic beauty in the world. This heritage is not merely breath-taking coastal views with waves crashing over jagged rocks, but filled with unique plant associations to be found no where else in the world. The focus of this portion of the grant was to develop a display of plants for these unique plant associations. To do this we took advantage of granite boulders acquired earlier from the Monterey Peninsula that we had previously arranged into a naturalistic outcropping in an area about 65 X 50 ft. Roughly 200 cubic yards of soil was used to develop the raised area and we topped the mound with small sandy granite pebbles (1/4 X 10 screen size) from a local quarry to convey the look of eroding coastal granite and sandstone. We planted species that occur naturally in the central coastal bluff environs and made generous use of several of our selections and introductions from these habitats.

We also constructed an interpretive board and placed it in a half-moon shaped area on the western edge of the display where eventually we will include a drinking fountain and benches for people to sit. The coastal display is featured in our long-range conceptual plan for the Entrance Native Garden<sup>2</sup> and will receive further enhancement in the future.

Following is the list of species currently featured in the Coastal Bluff and Maritime Chaparral Displays:

<i>Aesculus californica</i>		<i>Arctostaphylos pajaroensis</i> ‘Warren Roberts’
<i>Agrostis diegoensis</i>		<i>Arctostaphylos pumila</i>
<i>Arctostaphylos edmundsii</i> ‘Little Sur’		<i>Arctostaphylos purissima</i> ‘Vandenberg’
<i>Arctostaphylos edmundsii</i> ‘Rosy Dawn’		<i>Arctostaphylos uva-ursi</i> ‘San Bruno
<i>Arctostaphylos edmundsii</i> ‘Carmel Sur’		Mountain’
<i>Arctostaphylos montereyensis</i>		<i>Armeria maritima</i> ssp. <i>californica</i>
<i>Arctostaphylos morroensis</i>		<i>Artemisia californica</i>
<i>Arctostaphylos pajaroensis</i>	‘Brett’s Beauty’	<i>Artemisia californica</i> ‘Canyon Grey’

<sup>2</sup> Landscape Improvement Plan for the California Native Plant Garden at the Entrance to the Arboretum, University of California at Santa Cruz, Russell A. Beatty, ASLA, Landscape Architect

<i>Artemisia pycnocephala</i>	<i>Ericameria ericoides</i>
<i>Calochortus alba</i>	<i>Erigeron glaucous</i>
<i>Calystegia macrostegia</i> ssp. <i>cyclostegia</i>	<i>Eriogonum latifolium</i>
<i>Carex</i> sp.	<i>Eriophyllum lanatum</i>
<i>Carex pansa</i>	<i>Eriophyllum stachaedifolium</i>
<i>Ceanothus arboreus</i>	<i>Fragaria chiloensis</i> 'Aulon'
<i>Ceanothus griseus</i> var. <i>horizontalis</i> 'Yankee Point'	<i>Fremontodendron californicum</i> ssp. <i>crassifolium</i>
<i>Ceanothus griseus</i> var. <i>horizontalis</i>	<i>Horkelia cuneata</i> ssp.?
<i>Ceanothus griseus</i> 'Louis Edmonds'	<i>Lessingia filaginifolia</i>
<i>Ceanothus impressus</i> 'Vandenberg'	<i>Lepechinia calycina</i>
<i>Ceanothus maritimus</i> 'Frosty Dawn'	<i>Leymus condensatus</i> 'Canyon Prince'
<i>Ceanothus maritimus</i> 'Pt Sierra'	<i>Lupinus arboreus</i>
<i>Ceanothus maritimus</i> 'Pt Sierra'	<i>Lupinus chamissonis</i>
<i>Ceanothus thyrsiflorus</i> 'Arroyo de la Cruz'	<i>Nassella pulchra</i> ( <i>Stipa pulchra</i> )
<i>Ceanothus thyrsiflorus</i> 'Snowflurry'	<i>Rhamnus californica</i> 'Mound San Bruno'
<i>Dudleya farinosa</i>	<i>Ribes menziesii</i>
<i>Elymus glaucous</i>	<i>Sambucus mexicana</i>
<i>Epilobium canum</i> (syn. <i>Zauschneria cana</i> ) 'Hurricane Pt'	<i>Sambucus racemosa</i>
	<i>Sisyrinchium bellum</i> 'Arroyo de la Cruz'
	<i>Sisyrinchium bellum</i> 'Greyhound Rock'
	<i>Sisyrinchium bellum</i> 'H Bar H White'
	<i>Sisyrinchium bellum</i> 'Rocky Point'
	<i>Tanacetum camphoratum</i>

## Collection Enhancement — Plantings Objective

Overall enhancement of our native plant collections was made possible with this grant. We were able to devote time to propagation and renewal, to obtain new plants from wild collections and from other botanical institutions, growers, and native plant nurseries.

Following is a partial list of the species and cultivars planted in the native areas during the grant period with the help of Slosson funds :

<i>Abies magnifica</i>
<i>Acaena pinnatifida</i>
<i>Acer macrophyllum</i>
<i>Acer negundo</i>
<i>Actaea rubra</i>
<i>Adiantum aleuticum</i>
<i>Adiantum Xtracyi</i> ( <i>A. aleuticum</i> X <i>A. jordanii</i> )
<i>Aesculus californica</i>
<i>Agrostis diegoensis</i>
<i>Arabis hoffmannii</i> —Santa Cruz Island, via SBBG

<i>Aralia californica</i>
<i>Arctostaphylos</i> 'Winter Glow'
<i>Arctostaphylos andersonii</i>
<i>Arctostaphylos confertiflora</i>
<i>Arctostaphylos edmundsii</i> 'Little Sur'
<i>Arctostaphylos edmundsii</i> 'Rosy Dawn'
<i>Arctostaphylos edmundsii</i> 'Carmel Sur'
<i>Arctostaphylos edmundsii</i> 'Little Sur'
<i>Arctostaphylos hookeri</i>
<i>Arctostaphylos insularis</i>

*Arctostaphylos manzanita* ‘Dr. Hurd’  
*Arctostaphylos montereyensis*  
*Arctostaphylos morroensis*  
*Arctostaphylos nevadensis*  
*Arctostaphylos nummularia* ‘Bear Belly’  
*Arctostaphylos nummularia* ‘Small Change’  
*Arctostaphylos pajaroensis*  
*Arctostaphylos pajaroensis* ‘Brett’s Beauty’  
*Arctostaphylos pajaroensis* ‘Warren Roberts’  
*Arctostaphylos pallida*  
*Arctostaphylos pumila*  
*Arctostaphylos purissima* ‘Vandenberg’  
*Arctostaphylos refugioensis* ‘Pink Glory’  
*Arctostaphylos tomentosa*  
*Arctostaphylos uva ursi*  
*Arctostaphylos uva-ursi* ‘San Bruno’  
Mountain’  
*Arctostaphylos purissima* ‘Vandenberg’  
*Aristolochia californica*  
*Artemisia douglasii*  
*Aster chilensis*  
*Astragalus nuttallii*  
*Atriplex lentiformis* ssp. *breweri*  
*Berberis nervosa*  
*Boykinia elata*  
*Calamagrostis nutkaensis*  
*Calamogrostis* ‘Sonora Paz’  
*Calochortus alba*  
*Calycanthus occidentalis*  
*Calystegia macrostegia* ssp. *cyclostegia*  
*Camissonia cheiranthifolia*  
*Carex* sp.  
*Carex pansa*  
*Carex praegracilis*  
*Carex* sp.  
*Ceanothus* ‘Wheeler Canyon’  
*Ceanothus arboreus*  
*Ceanothus cuneatus*  
*Ceanothus griseus* var. *horizontalis* ‘Yankee Point’  
*Ceanothus griseus* var. *horizontalis*  
*Ceanothus griseus* ‘Louis Edmonds’  
*Ceanothus hearstiorum*  
*Ceanothus impressus* ‘Vandenberg’  
*Ceanothus maritimus*

*Ceanothus maritimus* ‘Frosty Dawn’  
*Ceanothus maritimus* ‘Pt Sierra’  
*Ceanothus thyrsiflorus* ‘Arroyo de la Cruz’  
*Ceanothus thyrsiflorus* ‘Snowflurry’  
*Clintonia andrewsiana*  
*Coreopsis gigantea*  
*Cornus glabrata*  
*Corylus californica*  
*Cupressus guadelupensis*  
*Cynoglossum grande*  
*Danthonia californica*  
*Dendromecon harfordii*  
*Dudleya caespitosa*  
*Dudleya farinosa*  
*Elymus californica*  
*Elymus glaucous*  
*Epilobium canum* (syn. *Zauschneria cana*) ‘Hurricane Pt’  
*Ericameria ericoides*  
*Erigeron glaucous*  
*Eriogonum crocatum*  
*Eriogonum latifolium*  
*Eriophyllum stachaedifolium*  
*Eriophyllum lanatum*  
*Eriophyllum stachaedifolium*  
*Eschscholzia californica*  
*Festuca idahoensis*  
*Festuca idahoensis* ‘Warren Peak’  
*Festuca idahoensis* ‘Siskiyou Blue’  
*Festuca occidentalis*  
*Fragaria chiloensis*  
*Fragaria chiloensis* ‘Aulon’  
*Fremontodendron* ‘Ken Taylor’  
*Fremontodendron* ‘Pacific Sunset’  
*Fremontodendron* ‘San Gabriel’  
*Fremontodendron californicum* ssp. *crassifolium*  
*Fremontodendron californicum*—Fort Ord  
*Garrya elliptica*  
*Grindelia latifolia*  
*Hierochloe occidentalis*  
*Heteromeles arbutifolia*  
*Heuchera micrantha*  
*Horkelia cuneata* ssp.?  
*Horkelia* sp.  
*Iris longipetala*

<i>Iris macrosiphon</i>	<i>Ribes viburnifolium</i>
<i>Juncus effusus</i> var. <i>brunneus</i>	<i>Romneya coulteri</i>
<i>Juncus effusus</i> var. <i>pacificus</i>	<i>Rubus parviflorus</i>
<i>Juniperus californica</i>	<i>Salvia apiana</i>
<i>Lepechinia calycina</i>	<i>Salvia leucophylla</i>
<i>Leymus condensatus</i> ‘Canyon Prince’	<i>Salvia sonomensis</i> ‘Hanging Valley’
<i>Leymus triticoides</i>	<i>Sambucus mexicana</i>
<i>Lupinus arboreus</i>	<i>Sambucus racemosa</i>
<i>Lupinus chamissonis</i>	<i>Scrophularia californica</i>
<i>Lyonothamnus floribundus</i> ssp. <i>aspleniifolius</i>	<i>Sedum spathulifolium</i>
<i>Mimulus ‘Pumpkin’</i>	<i>Sidalcea malvaeflora</i>
<i>Mimulus bifidus</i> ssp. <i>fasciculatus</i>	<i>Sisyrinchium bellum</i> ‘Fort Bragg’, ‘Occidental’, —‘Greyhound Rock’, ‘Rocky Point’
<i>Monardella villosa</i>	<i>Sisyrinchium bellum</i> ‘Arroyo de la Cruz’
<i>Muhlenbergia rigens</i>	<i>Sisyrinchium bellum</i> ‘Greyhound Rock’
<i>Nassella pulchra</i> ( <i>Stipa pulchra</i> )	<i>Sisyrinchium bellum</i> ‘H Bar H White’
<i>Penstemon centranthifolius</i>	<i>Smilacina racemosa</i>
<i>Perideridia kelloggii</i>	<i>Solanum umbelliferum</i> ssp. <i>incanum</i>
<i>Plantago maritima</i>	<i>Solanum xantii</i> ‘Salmon Creek’
<i>Polypodium californicum</i>	<i>Symphoricarpus alnus</i>
<i>Potentilla gracilis</i>	<i>Tanacetum camphoratum</i>
<i>Prunus illicifolia</i>	<i>Tellima grandiflora</i>
<i>Quercus kelloggii</i>	<i>Thalictrum fendleri</i>
<i>Quercus lobata</i>	<i>Thysanotus multiflorus</i>
<i>Quercus tomentella</i>	<i>Torreya californica</i>
<i>Quercus wislezenii</i>	<i>Tritelia laxa</i>
<i>Rhamnus californica</i> ‘Mound San Bruno’	<i>Vaccinium ovatum</i> ‘Blue Madonna’
<i>Rhamnus crocea</i> var. <i>illicifolia</i>	<i>Veratrum fimbriatum</i>
<i>Rhamnus tomentosa</i>	<i>Viola adunca</i>
<i>Rhus trilobata</i>	<i>Viola glabella</i>
<i>Ribes californicum</i>	<i>Viola occellata</i>
<i>Ribes cereum</i>	<i>Yucca whipplei</i> ssp. <i>precursa</i>
<i>Ribes menziesii</i>	
<i>Ribes speciosum</i>	

We also made several field trips this year to the Santa Cruz Mountains, the Santa Lucia Range, the North Coast Ranges and the Northern Sierra Nevada, in addition to our horticulture work with field collections made in recent years. Among the species and selections from these field collections that appear to have promise for horticulture are the following:

*Arctostaphylos andersonii*—white and pink flowered individuals, Santa Cruz Mountains  
*Arctostaphylos insularis*—a very healthy, vigorous, clean and nicely flowering form from Santa Cruz Island

*Arctostaphylos nummularia*—interesting and large-leaved forms with red new growth

*Arctostaphylos pungens*—Santa Lucia Mountains

*Arctostaphylos tomentosa*—a white furry-leaved form from the Santa Cruz Mountains

*Arctostaphylos viscida*—attractive glaucous -foliage and pink flowers Sierra foothills. Easier to root

*Calystegia macrostegia* ssp. *cyclostegia*—an exceptionally beautiful pink form from the Santa Lucia Mountains

*Delphinium hutchinsoniae*—northern Santa Lucia Mountains

*Dudleya caespitosa*—first record from Santa Rosa Island. Very white and cespitose. Very promising.

*Dudleya edulis*—inland with variations in leaf shape including short, narrow-leaved forms, very fragrant.

*Dudleya greenei*—several promising horticultural forms from San Miguel Id. (some =*D. regalis*, *D. hoffmannii*, *D. echeverioides* -names no longer accepted, but considerable variation).

*Dudleya viscida*—(possible hybrid) with darker pink to pink-red flowers.

*Dudleya viscida*—forms with red-pink flowers

*Elymus* sp. —a narrow-leaved glaucous form Fish canyon, near San Gabriel Canyon

*Leucothae davisii*—a form from the North coast Ranges that is suitable for the Monterey Region

*Lobelia dunnii* var. *serrata*—Trialing

*Rhamnus californica*—low mounding form from southern Santa Lucia Mountains

*Rhododendron occidentale*—a snow white form from the North coast Range on Serpentine

*Ribes menziesii*—Santa Cruz and Santa Lucia Mountains

*Rosa californica*—nicely fragrant forms

*Rosa* sp. —from the Sierra Nevada. Attractive fruits.

*Rosa* sp.—Santa Monica Mountains. 5-8' decent sized pink flowers.

*Salvia sonomensis*—exceptional wide spreading floriferous form from the Santa Lucia Mountains

*Silene laciniata* from Santa Rosa Island to compare with previous collections

*Silene laciniata*—a form that is relatively easy to grow and floriferous

*Vaccinium ovatum*—Bonny Doon, Santa Cruz Mountains

Many other species were collected for habitat, regional and species representation. Many are from seed. Following is a partial list:

*Abies concolor*—Northern Sierra Nevada

*Alnus incana* ssp. *tenuifolia*—Northern Sierra Nevada

*Aquilegia formosa*—Northern Sierra Nevada

*Arctostaphylos hooveri*—Santa Lucia Mountains

*Arctostaphylos obispoensis*—South Coast Ranges

*Bloomeria*—Santa Lucia Mountains

*Calochortus albus rubellus*—Santa Lucia Mountains

*Calochortus albus*—Santa Lucia Mountains

*Carex* sp.—Northern Sierra Nevada

*Ceanothus* (aff. *C. Impressus*)—South Coast Ranges

*Ceanothus griseus*—Santa Lucia Mountains

*Ceanothus prostratus*—Northern Sierra Nevada  
*Clematis lasiantha*— Santa Lucia Mountains  
*Clintonia andrewsiana*— Santa Lucia Mountains  
*Clintonia andrewsiana*—Santa Lucia Mountains  
*Cornus sericea* ssp. *occidentalis*—Northern Sierra Nevada  
*Cryptogramma cascadensis*—Northern Sierra Nevada  
*Cupressus sargentii*—South Coast Ranges  
*Dendromecon rigida*—South Coast Ranges  
*Dichelostemma pulchella*—Santa Lucia Mountains  
*Dodocatheon clevelandii*—Santa Lucia Mountains  
*Dudleya caespitosa*—first record for Island. Especially white leaved-form  
*Dudleya greenei*—San Miguel Island  
*Ericameria ericoides*— Santa Lucia Mountains  
*Eriogomum arboescens*—Santa Cruz Island  
*Eriophyllum confertiflorum*—Santa Lucia Mountains  
*Fritillaria biflora*— Santa Lucia Mountains  
*Garrya elliptica*—South Coast Ranges  
*Hierochloe occidentalis*— Santa Lucia Mountains  
*Heuchera pilosissima*— Santa Lucia Mountains  
*Juniperus communis* ssp. *saxatalis*—Northern Sierra Nevada  
*KeckIELLA corymbosa*—South Coast Ranges  
*Lathyrus vestita*—Santa Lucia Mountains  
*Ledum glandulosum*—Northern Sierra Nevada  
*Lupinus albrfrons*— Santa Lucia Mountains  
*Madia elegans*—Santa Lucia Mountains  
*Pellaea bridgsii*—Northern Sierra Nevada  
*Phacelia californica*—Santa Lucia Mountains  
*Pinus lambertiana*— Santa Lucia Mountains  
*Prunus illicifolia*—South Coast Ranges  
*Rhamnus crocea*—South Coast Ranges  
*Ribes cereum*—Northern Sierra Nevada  
*Ribes* sp. — South Coast Ranges  
*Rosa californica*—South Coast Ranges  
*Rosa* sp— Sierra Nevada  
*Rubus parviflorus*—northern Santa Lucia  
*Salix greyiana*—Northern Sierra Nevada  
*Salix lemonii*— Northern Sierra Nevada  
*Salix ligulifolia*—Northern Sierra Nevada  
*Salvia columbariae*— Santa Lucia Mountains  
*Smilacina stellata*—Northern Sierra Nevada  
*Trichostema lanatum*—South Coast Ranges  
*Wyethia angustifolia*—Northern Sierra Nevada  
*Wyethia molis*—Northern Sierra Nevada

## **Distribution of Introductions Objective**

Distribution of native plants suitable for our region to the nursery and home gardener was among the objectives of the grant. This was accomplished through our regular sales at Norrie's Gift Shop, through our two major sales in the fall and spring, and through providing our plants directly to other gardens, nurseries, and growers.

Following is the list of plants that we made special efforts to distribute. Some of these were first-time introductions and some were plants that we had introduced previously but which needed more exposure to the growers and public.

***Arctostaphylos silvicola* 'Alma' 96.72.** First collected in 1996 and named after Alma Schreiber, defender of the South Ridge manzanitas and wallflowers of Ben Lomond in Santa Cruz County. Stephen McCabe from the UCSC Arboretum selected this individual for its health and beauty. Unlike many selections of *A. Silvicola*, that have difficulty growing away from their familiar hot summers in exceedingly well-drained sand, *A. silvicola* 'Alma' appears to be thriving in cultivation.

***Arctostaphylos* 'Sunset' 76.104** is not a discovery or introduction of the UCSC Arboretum but we chose to give it wider circulation and attention because of its adaptability to the central coast and because it is a hybrid between two local species, *A. pajaroensis* and *A. hookeri*. It was Introduced in 1976 by the Saratoga Horticultural Foundation and named to honor *Sunset Magazine*, during its 75th year. In recent decades it has not seen much circulation locally. Our oldest specimen was planted in 1976 and is still alive and thriving.

***Fragaria chiloensis* 'Aulon' 90.241** is a large-flowered selection of our coast strawberry. We collected our original cuttings from the sandy coastal bluffs near the Indian middens above the mouth of Laguna Creek in northern Santa Cruz County. We have distributed this selection far and wide and it is making significant headway locally and well into the Southern California nursery scene.

***Fremontodendron* 'Ken Taylor' 78.28** This is a low growing Fremontia cultivar that we jointly introduced several years ago with local nurseries. Since it is not widely available we targeted it for further promotion. It is a hybrid between *Fremontodendron californicum* ssp. *decumbens* X *Fremontodendron californica* ssp. *californicum* 'California Glory'. Richard Hildreth, while he was Director of Saratoga Horticultural Foundation, and the late Ken Taylor, Aromas Nurseryman, were responsible for the original crosses and plantings. The UCSC Arboretum and private nurseryman Nevin Smith were responsible for the original promotions and introductions in the mid 1980s. Successful propagation and production requires special attention and explains why there are never enough in the nursery trade. Hence our promotional efforts.

***Juniperus communis* —Smith River 82.36.** A lovely mat-growing individual with silvery gray to bluish foliage, collected in rocky serpentine soil along the South Fork of the Smith River in the

early 1980s. We've grown it for almost 2 decades and it is a very durable and ornamental individual. We have proposed introducing it under the cultivar name 'Smith River'.

***Mahonia pinnata* ssp. *insularis* 'Shnilemoon' 79.71.** We increased our promotion and distribution of our cultivar of this rare, endangered and beautiful Santa Cruz Island endemic. Plants have been distributed as far north as Portland Oregon in the last year.

***Philadelphus lewisii* — McDonnell Bar 75.457.** A choice selection of mock orange from the Klamath Ranges of Northern California. We have grown this plant for a quarter century and marveled at its beauty. We did not introduce it earlier because we had already introduced the form known as 'Goose Creek'. —McDonnell Bar finally got the better of us and our Nursery Manager, who put it into production.

***Salvia spathacea*—Arroyo Seco 82.19.** A choice form from the Arroyo Seco River Gorge in the Santa Lucia Mountains of Monterey County. We have been promoting this form for its many uses including attraction of humming birds, full sun, slopes, containers (large containers) and hot dry shade among oaks.

***Mimulus* 'Nick'.** A new Introduction collected originally near Blue Sky Preserve, in the area south of Escondido, California on the outskirts of Poway. It appears to have its closest affinities with *M. puniceus* and was discovered among a hybrid swarm with *Mimulus puniceus* and *Mimulus longiflorus*.

***Silene laciniata***—A vigorous growing form Santa Cruz Island. Perhaps best suited to container growing. More trials will tell. For the more watchful native plant gardener.

Additionally, the following were offered for distribution through our year round nursery sales: Plant selections followed by an asterisk are Arboretum Introductions.

*Arctostaphylos bakeri* ssp. *bakeri* 'Lois Edmunds'  
*Arctostaphylos cruzensis* X *A. hearstiorum*  
*Arctostaphylos edmundsii* 'Little Sur'  
*Arctostaphylos montaraensis*  
*Arctostaphylos nummularia* 'Bear Belly'\*  
*Arctostaphylos pajaroensis* 'Paradise'  
*Arctostaphylos pajaroensis* 'Brett's Beauty'  
*Arctostaphylos silvicola* 'Alma'\*  
*Carpenteria californica*\*  
*Ceanothus gloriosus* 'Anchor Bay'  
*Ceanothus impressus*  
*Ceanothus maritimus* 'Pt. Sierra'  
*Ceanothus maritimus* —87.205\*

*Ceanothus thyrsiflorus* var. *repens*  
*Cupressus sargentii*  
*Epilobium canum* 'Cloverdale'  
*Epilobium canum* 'Hurrican Point'  
*Epilobium septentrionalis* 'Select Mattole'  
*Eriogonum grande* var. *rubescens*\*  
*Fremontodendron californicum* ssp. *crassifolium* 'Butano Ridge'  
*Galvesia speciosa*  
*Iris*—tall purple  
*Lepechinia calycina*\*  
*Lepechinia fragrans* 'El Tigre'\*\*  
*Malacothamnus fasciculatus* var. *nesioticus*\*  
*Malacothamnus jonesii*\*  
*Malacothamnus arcuatus* 'Edgewood'  
*Maurandya antirrhiniflora*  
*Mimulus bifidus* ssp. *fasciculatus*  
*Mimulus longiflorus* 'Apricot Christie'\*  
*Mimulus longiflorus* 'San Justiano'\*\*  
*Mimulus X* —UC Davis  
*Penstemon azureus*\*  
*Penstemon cardinalis*  
*Ribes malvaceum* 'Wanderlich'  
*Ribes sanguinum* 'Barrie Coate'  
*Ribes speciosum*\*  
*Ribes viburnifolium*  
*Salvia* 'Winifred Gilman'  
*Salvia brandegei*  
*Salvia clevelandii*  
*Salvia sonomensis* 'Dara's Choice'  
*Salvia* 'Starlight'  
*Salvia clevelandii* 'Allen Chickering'  
*Salvia sonomensis* 'Hanging Valley'\*\*  
*Salvia sonomensis*—several selected forms

### **Building closer ties with local growers and native plant groups**

With the help of this grant we developed stronger working relations with local growers and groups involved in native plant horticulture. Some of the plants for the native collection came from native plant nurseries through exchange and purchase. Each of these groups listed below has key individuals dedicated to native plant conservation and horticulture who have become friends and colleagues. These working friendships will prosper more in the future.

**Central Coast Wilds**  
**Native Revival Nursery**  
**Elkhorn Native Plant Nursery**  
**Suncrest Nureries Inc.**  
**Rosendale Nurseries and Sierra Azul Nursery**  
**Santa Cruz Mountain Bioregional Council**  
**California Native Plant Society,**  
**Santa Cruz Chapter**

We thank the Elvenia J. Slosson Foundation for your support to the University of California Santa Cruz Arboretum which enabled us to enhance our work with California Native Plants.

# **Landscape Improvement Plan for the California Native Plant Garden at the Entrance to the Arboretum**

University of California at Santa Cruz

Russell A. Beatty, ASLA  
Landscape Architect

October 6, 2000

## **Introduction**

The California Native Garden at the entrance to the UCSC Arboretum was originally designed to display showy native plants and to serve as a teaching garden for students and the general public. Many choice cultivars have been introduced by the Arboretum as a result of their success in this garden. The location of the Native Garden at the entrance to the Arboretum is adjacent to the main parking area and Norrie's Gift Shop. This location creates a unique opportunity to develop an attractive and welcoming front door to the Arboretum.

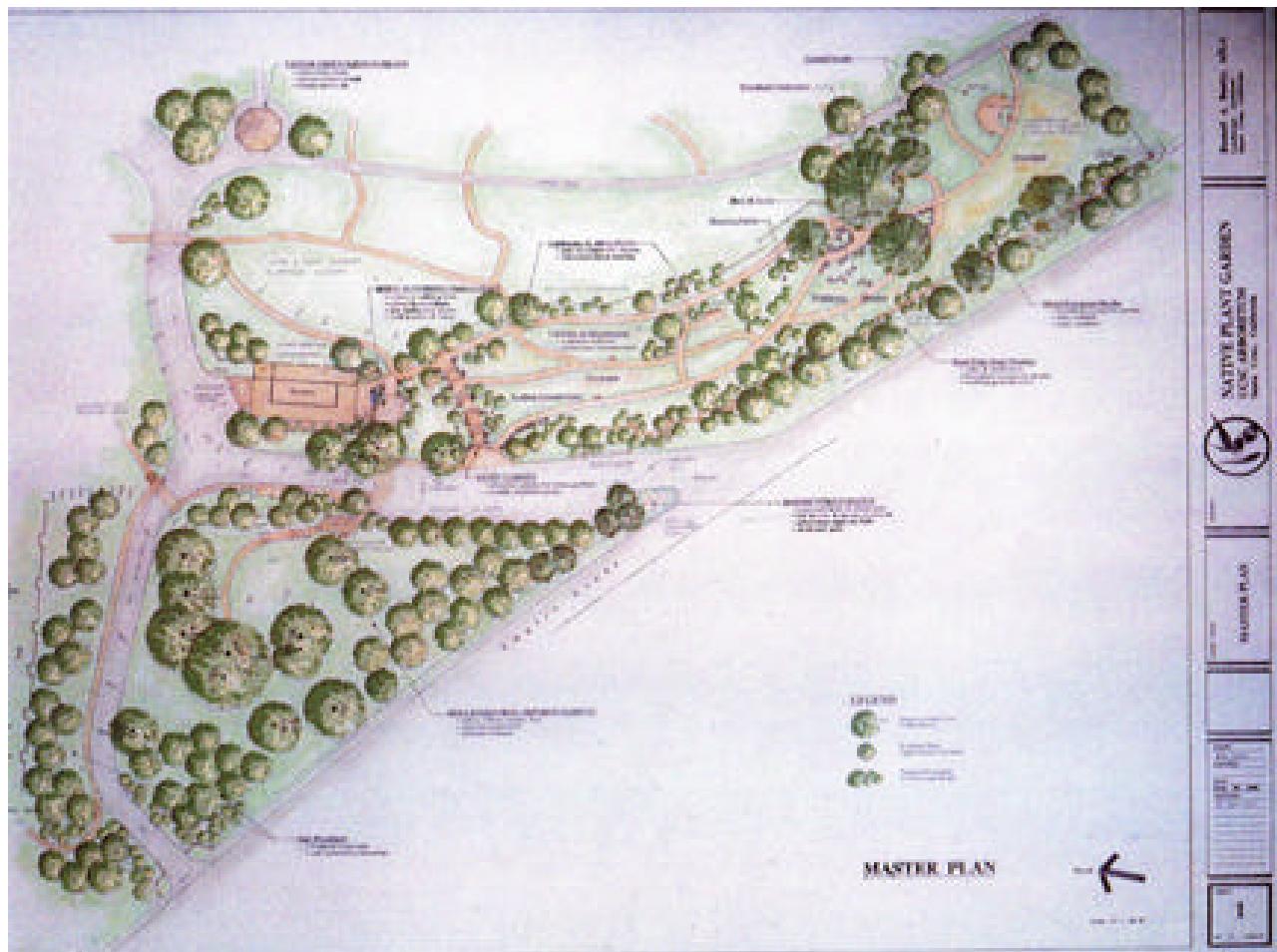
Through this planning project, the Arboretum has begun a process of revitalization and enhancement of the Native Garden in collaboration with Brett Hall, Assistant Director and members of his staff. The Native Garden at the entrance to the Arboretum is part of a broad based Native Plant Program that includes two other areas located further back in the Arboretum. These areas are located in more natural portions of the Arboretum and will be developed with strong ecological and conservation themes following the successful revitalization of the Native Garden at the entrance.

## **Opportunities**

The Native Garden at the Arboretum entrance is rather small and can be expanded to display a broader range of plant types and environments. The recent improvement to the lower dam west of the arboretum entrance has left an exposed, graded slope on the dam face above the creek. The riparian zone below the dam affords the opportunity to expand the native garden. On the mesa south of the existing garden area, an undeveloped landscape also affords the opportunity to expand the garden to demonstrate the coastal bluff plant association.

Combined with the redesign of the native garden is the need for interpretation of the garden. The redesign incorporates new interpretive themes as the basis for organization of the garden and its parts. Interpretive displays will be located in logical places, as shown on the Master Plan, with an overall garden interpretive exhibit opposite the parking area.

Redesign and expansion of the Native Garden will necessitate the modification of such existing site features as the arboretum entrance, existing parking lot, access drive and pathway system within the garden, and the removal of the Docent's Shed and phasing out of the concrete restroom. Such modifications will not only enhance visitor access and experience of the native garden, but also will serve to integrate the native garden into a whole that will envelop the arboretum entrance area and the gift shop. Thus, the landscape design will integrate both natural and man-made features of the site to demonstrate and interpret the use, ecological value and aesthetic benefit of California native plants in a prominent setting from which students and visitors can learn.



## **Concepts and Interpretive Themes**

The overriding concepts behind the Master Plan of the California Native Garden at the Arboretum entrance include:

1. Provide a setting for the display and demonstration of native plants and cultivars suitable for planting in the home landscape and similar settings.
2. Develop a limited representation of ecological plant associations within the Central Coastal Region.
3. Expand this portion of the Arboretum's collection of native plants to encompass the riparian area and red legged frog habitat below the dam as well as into several areas along the edges of the existing garden.
4. Identify sub-areas within the native garden for detailed interpretation for garden visitors.
5. Improve the arboretum entrance, circulation and accommodations for visitors.

## **Master Plan Components**

### **1. Arboretum Entrance**

The existing entrance to the Arboretum off Empire Garden has been simplified and clarified by:

- a. removal of the existing island containing the Arboretum sign
- b. making the vehicular entrance one way into the garden, exiting onto Empire Grade across the dam to the west by adding a new driveway
- c. providing a handsome masonry, stucco or rammed earth wall at the entrance to display arboretum signage
- d. installing a well designed electronic gate in association with the wall
- e. planting attractive low shrubs and colorful native perennials in front of the wall and a small grove of coast redwoods behind it where the creek goes under Empire Grade

### **2. Parking and Circulation**

- a. The existing parking lot has been widened slightly to accommodate 13 spaces, including one handicapped space, arranged at a 60° angle diagonal configuration.
- b. Bicycle parking has been moved from beneath the oaks below Norrie's to the location of the existing Docent's Shed, which will be removed.
- c. Vehicular circulation is a one way loop into and exiting the garden with the road from Norris's widened to accommodate two way traffic up to the Horticulture Buildings.
- d. Pedestrian circulation is accommodated in pathways along the entry drive with marked crosswalks linking to paths into the garden at four locations.

e. A new stairway into the garden links the parking lot with Norrie's as well as the Jane and Dean McHenry South African Garden.

f. Disabled access is provided within the garden by combining certain existing accessible paths with several new paths allowing for access to Norrie's from the parking lot and into virtually all areas of the Native Garden.

### **3. Visitor Accommodations**

a. A new restroom, accessible to disabled persons, is located at the northeast corner of Norrie's to be incorporated into the expansion of Norrie's Gift Shop. The existing concrete restroom along the entry drive should be removed once the new restroom is built.

b. Interpretive signs are located at strategic places within the Native Garden in relation to certain plant collections or displays. A display panel for orientation to the larger Arboretum is located at the base of the new stairway opposite the parking lot.

c. Comfortable benches and drinking fountains are located at selected spots throughout the garden. Several benches are located to take advantage of distant views to Monterey Bay and to the meadow across Empire Grade.

d. A deck overlook is located below the entry drive roughly behind the existing Docent's Shed which will be removed. This overlook will accommodate small touring groups for interpretation of the red legged frog/riparian habitat below.

e. A large seat wall and gathering place is provided at the south end of the garden for interpretation of the surrounding plant associations (coastal scrub, grassland, woodland under story).

f. A sound wall constructed using straw bale technology is proposed to reduce noise from Empire Grade. This wall will extend along the western edge from the entry gate to the south end of the Native Garden.

g. Visitor's pavilion: A pavilion for orientation of visitors to the larger Arboretum is suggested to be located near the existing handicapped parking above Norrie's. This structure would serve as the starting point for visitors to radiate into the rest of the Arboretum. It could also contain a restroom and a place for docents to greet visitors.

### **4. Home Demonstration Garden**

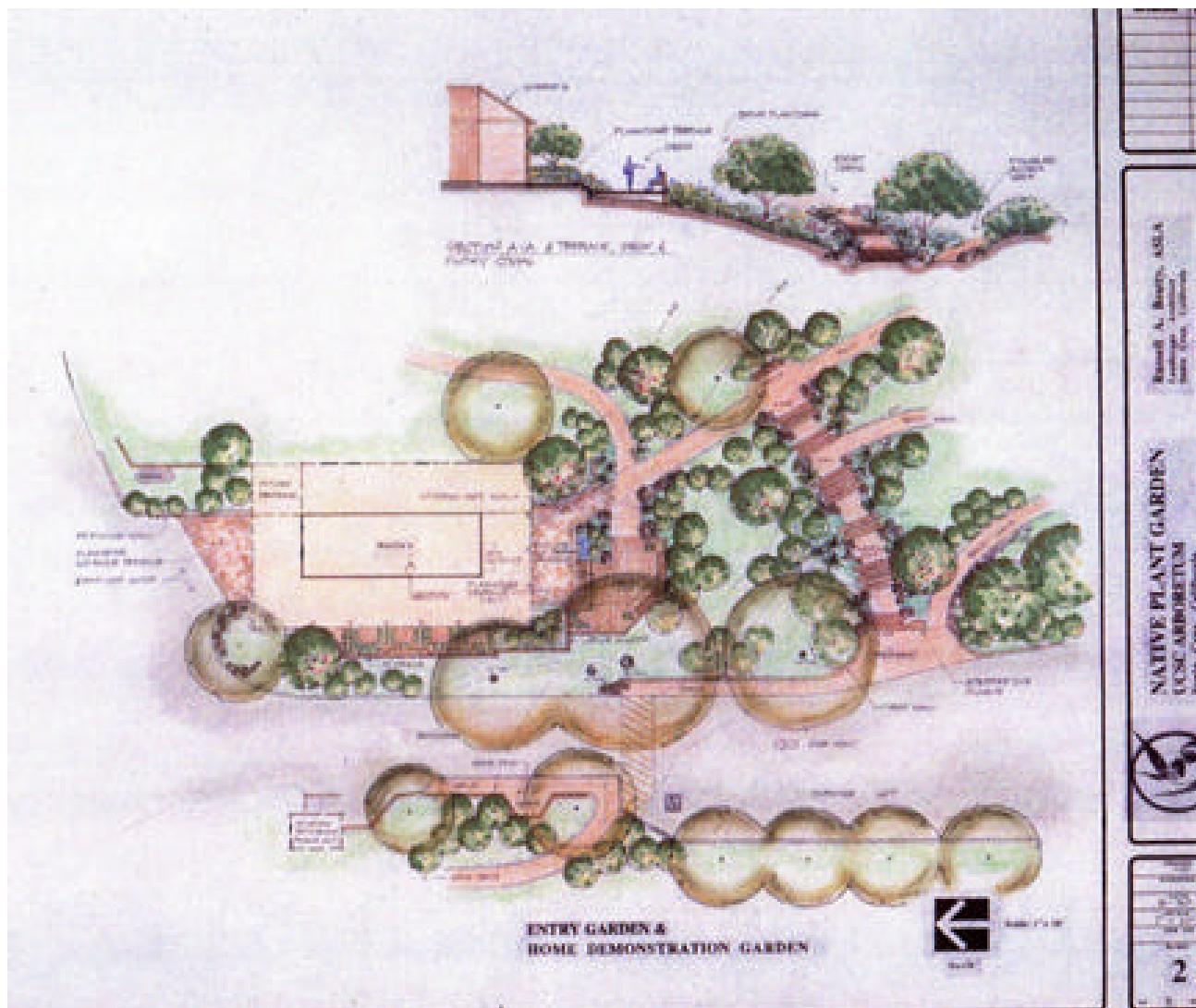
A demonstration garden is designed for the south end of Norrie's to serve both as the major entrance to Norrie's and to show how California native plants can be incorporated into a residential garden. This garden includes a flagstone terrace off the existing concrete apron stepping down onto a deck beneath the canopy of live oaks. An old concrete trough that is now hidden in the plantings below is relocated and converted as a water feature between the terrace and the deck. The terrace and deck will also serve as a gathering place for tour groups and for occasional social events.

Walls step up the slope along the proposed addition to Norrie's, affording the opportunity to demonstrate slope plantings in tiered beds. Containers on the deck will be planted with natives; a vine on an open screen above the deck and other plantings will demonstrate planting situations

common to residential gardens. The path from the McHenry South African Garden has been relocated to link the Home Demonstration Garden with the rest of the Arboretum.

The existing railroad tie beds containing sale plants will be converted to a flagstone terrace with portable tables to hold sale plants at waist level for easier viewing and a more flexible arrangement of sale plants. A five foot screen fence along the back of this terrace can be used to display plants on wall hangers and for wall sculptures or garden art. This fence also serves to screen Norrie's from the drive below and may act to improve security.

A flagstone terrace is repeated at the north end of Norrie's to serve as a drop-off place for disabled visitors and for deliveries. The existing handicapped parking space is relocated to the redesigned parking lot.



## **Plant Collections and Displays**

The Native Garden has been divided into fifteen more or less distinct sections to display a variety of plant associations. These groupings are intended to build on many of the mature existing plantings as well as to take advantage of the most suitable site conditions. The plantings in and around the Entry Garden at the new stairway and the Home Demonstration Garden are intended to demonstrate good landscape design in well composed compositions of compatible native trees, shrubs, groundcovers, grasses and perennials.

Further away from this core area the plant groupings gradually become more ecological in their associations, with several intermediate beds of such plants as native perennials, and cultivars and Arboretum introductions. The eastern edge is envisioned as a transition border mixing California natives with culturally and visually compatible plants from South Africa. The old ranch fence has been relocated to serve as a loose edge to define the Native Garden.

Along the western edge above Empire Grade, a border of mixed evergreen trees and shrubs adds to many existing plants such as oak, toyon and ceanothus. This dense planting will help buffer the sound of Empire Grade along with the sound wall.

A summary of the various plant collections and displays envisioned in this Master Plan follows:

### **1. Entry Garden**

- attractive plants for the home garden that are readily available in nurseries
- a combination of existing shrubs such as *Ceanothus gloriosus* and *Arctostaphylos edmundsii* with compatible groundcover plants, small trees, bunch grasses, poppies and such perennials as iris hybrids and penstemon as colorful accents along the steps and around the boulders.
- suitable under story plants for dry shade beneath the mature live oaks below Norrie's

### **2. Home Demonstration Garden**

- attractive, common native landscape plants such as toyon, *Ceanothus*, manzanita, monkey flower, *Mahonia* and flowering currant
- plants suitable for growing in containers
- plants for spilling over retaining walls
- small trees suitable for home gardens such as western redbud and large forms of manzanita and *Ceanothus*

### **3. Trailing Groundcovers**

- plants for erosion control on slopes such as prostrate forms of manzanita, sage, *Baccharis* and *Ceanothus*

### **4. Perennials**

- colorful perennials such as iris, penstemon, sea thrift, and California fuchsia
- colorful small shrubs and sub-shrubs such as the buckwheats and some sages

### **5. Cultivars and Introductions**

- popular cultivars of selected natives not planted elsewhere in the garden
- cultivars and other native plants introduced by the Arboretum

6. Wildflower Meadow

- seasonal display of spring wildflowers such as meadow foam, gold fields, *Nemophila* poppy and tidy tips.

7. Grassland

- a variety of perennial bunch grasses from the Central Coast plus selected perennials such as blue-eyed grass

8. Mixed Evergreen Border

- retain the best of the existing trees and shrubs
- add such compatible plants as tall forms of *Ceanothus*, *Fremontia*, evergreen oaks, California nutmeg and such small conifers as shore pine

9. Coastal Scrub

- plants from coastal scrub plant association of the Central Coast

10. Woodland Under story

- plants for dry shade such as island alum root and evergreen currant

11. Rock and Scree

- rock garden plants such as bulbs, perennials and small shrubs

12. Montane Plants

- plants found in higher elevations of the Coast Range, primarily shrubs

13. Arboretum Entrance and Parking Lot

- low shrubs and colorful annuals and perennials outside and below the new wall
- small cluster of coast redwoods behind the wall and at the end of the stream
- add such trees as island oak and live oak to shade the parking lot
- attractive shrubs such as *Fremontia* and *Ceanothus* along the entry drive

14. Riparian Zone and Red Legged Frog Habitat

- riparian trees and shrubs such as alder, big leaf maple, elderberry, currant, hazelnut and western azalea

15. Oak Woodland

- retain existing live oaks at the base of the dam and around the exit drive
- add such species as island oak, valley oak, canyon oak, interior and canyon live oak, and black oak
- plant suitable under story shrubs as alum root, *Mahonia*, snowberry and Sonoma sage

A more complete and detailed list of plants for each of the above collections will be developed to guide future planting. Also, a planting plan for each of the areas should be made with special attention to the composition of plants in the core landscape areas #1 through 5.