

Sepulveda Basin
Wildlife Park

Conceptual Master Plan

Landscape Revegetation Concepts



Public Workshop

Prepared for:
Department of the Army, Corps of Engineers

Prepared by:
EDAW, Inc.

JULY 29, 1995

LANDSCAPE REVEGETATION

The general revegetation approach or philosophy for the whole site would be to preserve and enhance existing native vegetation and habitats, and to increase the amount and diversity of native plant communities. Infestations of exotic species would be removed and replaced with species that are components of the natural habitat assemblages.

The revegetation efforts would be to establish self-sustaining and functional habitats that are suitable for wildlife use to the extent feasible based on past and present uses of the area. Special efforts would be focused on targeting plantings for wildlife species, particularly the Canada goose (*Branta canadensis*). Self-sustaining, functional habitat is defined by the occurrence of natural processes which include plant succession, soil development, nutrient cycling, natural regeneration, resistance to invasion by exotic species, recovery from disturbance, and wildlife use and movement.

Increasing diversity of native species and plantings within existing native vegetation and new revegetation areas would further the goal of self-sustaining plant communities. A wide diversity of native species is considered to be an indication of a functioning habitat suitable for a wide variety of wildlife species.

Review of numerous previous reports, revegetation efforts and evaluations of portions the Sepulveda Basin, and on-site evaluations indicate suitability for enhancement and revegetation of the following plant communities:

- A. Native Grassland/Forage Area**
- B. Mulefat Scrub**
- C. Riparian Woodland**
- D. Oak/Sycamore Woodland**
- E. Oak Savannah**
- F. Lake Vegetation**
- G. Managed Goose Forage**
- H. Coastal Sage Scrub**
- I. Hummingbird Hill**

Descriptions of locations where revegetation of these habitats that may be established and/or integrated with existing native plant communities are provided below. Refer to the Conceptual Master Plan for proposed locations of these habitats.

Revegetation Approach

West Area

The primary focus of this area would be to establish a sustainable foraging area suitable for Canada goose. The majority of grassland and forb species chosen for planting would be those reported as occurring in Canada goose foraging sites in southern California.

A band of riparian woodland may be established in the area adjacent to the Los Angeles River. This band of riparian woodland would convert to an oak/sycamore woodland as it meets Burbank Boulevard and would continue to Woodley Avenue.

Along Woodley Creek, areas with existing mulefat would be preserved as a buffer to the forage areas. Additionally, the northern area along Woodley Avenue would receive plantings of oak savannah as a buffer to the roads.

Middle Area

An open oak savannah is proposed for planting in the majority of this area. A native stipa (*Nassella spp.*) grassland and other forbs would be planted as the understory. Limited plantings of other species such as California walnut (*Juglans californica*), sugar bush (*Rhus ovata*), Mexican elderberry (*Sambucus mexicana*), and toyon (*Heteromeles arbutifolia*) may be included in parts the oak woodland areas such as near Haskell Creek and Woodley Park.

Parallel to Burbank Blvd an oak/sycamore woodland would be established, also with a stipa grass understory and large shrubs. Where the oak savannah and oak/sycamore woodland meet the riparian vegetation along Haskell Creek, the plantings would begin to integrate more riparian species to provide a natural transition between habitats.

Haskell Creek

The existing, functional riparian woodland and mulefat scrub along Haskell Creek would be preserved. Haskell Creek would be enhanced and expanded as riparian woodland corridor. In areas with existing canopy components of riparian woodland, understory components would be added to reduce weed infestation and further incorporate more diversity of plant species naturally found in the understory of riparian plant assemblages. Other areas without existing native trees or understory plants would be planted with riparian canopy tree and understory species, which would increase the size and diversity of the riparian areas.

East Area (previously labeled the North Area)

The existing, functional riparian woodland and mulefat scrub along the wildlife lake would be preserved. In areas where patches of weeds are present they would be removed and native plants installed and maintained until established. One focus of the new plantings would be to increase diversity of the plant community by introducing a number of understory and canopy habitat appropriate species which are either not found on-site or are present in low concentrations.

The areas historically used by Canada goose for foraging would be enhanced through planting of sustainable grassland and forb species. The majority of grassland and forb species chosen for planting in these areas would be those reported as occurring in Canada goose foraging sites in southern California.

The disturbed area resulting from bulldozer earthwork is currently being successfully managed as goose forage by the City and would be maintained.

South Area

The existing, functional riparian woodland and mulefat scrub would be preserved. In areas where weeds are present they would be removed and native plants installed and maintained until established. The focus of the new plantings would be to increase diversity of the plant community by introducing a number of understory and canopy habitat appropriate species which are either not found on-site or are present in low concentrations.

North Area

The north reserve is currently landscaped with turf and ornamental trees. The intent is to transform the area into native habitats. The East Area would transition from the wildlife lake to mulefat scrub to an oak/sycamore community and to the north an oak savannah. Sycamore trees would be used as shade trees for the parking lot, amphitheater and picnic area. The existing ornamental trees would be removed.

Preliminary Lists of Proposed Dominant Species For Each Habitat

The following lists provide the proposed dominant species for each habitat. Once the habitat and dominant species are approved, an expanded, highly diversified container and seed mix plant lists would be developed.

A. Native Grassland/Forage Area

<u>Scientific Name</u>	<u>Common Name</u>
<i>Amsinckia intermedia</i> †	common fiddleneck
<i>Elymus triticoides</i> †	creeping wild rye
<i>Hordeum brachyantherum</i> †	meadow barley
<i>Lepidum spp.</i> †	peppergrass
<i>Leymus condensatus</i> †	giant wild rye
<i>Melica imperfecta</i> †	coastal melic
<i>Nasella spp.</i> †	stipa

B. Mulefat Scrub

<u>Scientific Name</u>	<u>Common Name</u>
<i>Baccharis salicifolia</i>	mulefat
<i>Baccharis emoryi</i>	Emory's baccharis
<i>Leymus condensatus</i> †	giant wild rye
<i>Rubus ursinus</i> †	black berry
<i>Rosa californica</i>	California rose

C. Riparian Woodland

<u>Scientific Name</u>	<u>Common Name</u>
<i>Anemopsis californica</i>	yerba mansa
<i>Baccharis salicifolia</i>	mulefat
<i>Platanus racemosa</i> *	California sycamore
<i>Populus fremontii</i> *	Fremont's cottonwood
<i>Rosa californica</i> *	wild rose
<i>Rubus ursinus</i> * †	black berry
<i>Salix goodingii</i> †	black willow
<i>Salix hindsiana</i> †	sandbar willow
<i>Salix lasiolepis</i> †	arroyo willow
<i>Sambucus mexicana</i> * †	Mexican elderberry
<i>Vitis girdiana</i> †	desert grape

* To be planted in the upper elevations of area.

D. Oak/Sycamore Woodland

<u>Scientific Name</u>	<u>Common Name</u>
<i>Heteromeles arbutifolia</i> †	toyon
<i>Juglans californica</i>	California walnut
<i>Leymus condensatus</i> †	giant wild rye
<i>Nasella</i> spp. †	stipa
<i>Platanus racemosa</i>	California sycamore
<i>Quercus agrifolia</i>	live oak
<i>Quercus lobata</i>	valley oak
<i>Rhus ovata</i> †	sugar bush
<i>Ribes speciosum</i> †	gooseberry
<i>Rosa californica</i>	California rose
<i>Sambucus mexicana</i> †	Mexican elderberry

E. Oak Savannah

<u>Scientific Name</u>	<u>Common Name</u>
<i>Heteromeles arbutifolia</i> †	toyon
<i>Juglans californica</i>	California walnut
<i>Leymus condensatus</i> †	giant wild rye
<i>Nasella</i> spp. †	stipa
<i>Quercus agrifolia</i>	live oak
<i>Quercus lobata</i>	valley oak
<i>Rhus ovata</i> †	sugar bush
<i>Ribes speciosum</i> †	gooseberry
<i>Rosa californica</i>	California rose
<i>Sambucus mexicana</i> †	Mexican elderberry

Constraints

The predominance of exotic, invasive weed species throughout California presents a formidable challenge to most revegetation and restoration projects. Weed species are opportunistic, and they have mechanisms for dispersal and establishment that leads to displacement of native species. The exotic seed bank in the soil often presents an equal or greater threat to a native community, and may pose a threat for several years.

The Sepulveda Basin and surrounding areas have numerous weed species occurring in various densities. It appears that many of the past and current revegetation efforts receiving weed control from different groups who have worked at the site, have been and continue to be relatively effective. This indicates that initial and long-term eradication/management of exotic species is not only effective but necessary to establish native habitats on-site. Because of the existing weed growth, comprehensive weed control efforts would be required both prior to revegetation plantings and during establishment of the plantings.

In addition to eradication of weed species at the time of planting new areas and during establishment, a long-term weed control, management plan would be required to ensure the long-term viability of native plantings and wildlife habitat. A long-term management plan would also be useful in addressing other issues such as herbivore control and pest management. Performing on-going weed control throughout the Basin and areas surrounding the site would help to greatly minimize the potential for new infestations into revegetation areas. Haskell Creek, upstream from Woodley Park, is an example of an area where weed control would help to reduce infestations downstream into the site.

Weed control would also improve the site's biological values by increasing its usable habitat. The primary focus of the weed control/eradication efforts would be to revegetate weed infested areas using site appropriate native plant species. Weed control activities would likely include a combination of eradication methods such as spot-spray herbicide treatments applied to exotic plants and noxious weeds that require root kill, manual removal of annual species prior to planting with natives, and possibly soil solarization for large areas.

MEMORANDUM

To: Ann Cutner, EDAW
From: Martha Blane, Martha Blane & Associates
Date: July 28, 1995
Re: Sepulveda Basin, Site Observation Notes and Plant Species List

During our site visit and meeting with Steve Hartman on July 10, 1995, the following observations and plant species were noted:

The site and surrounding areas have a large variety of weed species occurring in various densities. It appears that the revegetation areas receiving weed control from different groups has been and continues to be relatively effective.

This indicates that initial and long-term eradication/management of exotic species is not only effective but necessary to establish native habitats on-site. In addition to eradication of weed species at the time of planting new areas, a long-term weed control plan would be required to ensure the long-term viability of native plantings. Additionally, to reduce new infestations of weeds in the future, areas surrounding the site should receive weed control treatments as well. Haskell Creek, upstream from Woodley Park, is an example of an area where weed control would help to reduce infestations into the site.

From the biological perspective, a long-term management plan would also be useful in addressing other issues such as herbivore control and pest management.

The attached plant species list is based on casual observation made during our site visit with Steve Hartman. This list is not intended to be a complete listing of species occurring on-site or as a floral assessment of the site. Species marked with an asterisk (*) indicate exotic species noted.

SCIENTIFIC NAME	COMMON NAME
ACERACEAE	MAPLE FAMILY
<i>Acer negundo</i>	box elder
AGAVACEAE	AGAVE FAMILY
<i>Yucca whipplei</i>	our Lord's candle
ANACARDIACEAE	SUMAC FAMILY
<i>Malosma laurina</i>	laurel sumac
<i>Rhus ovata</i>	sugar bush
<i>Schinus terebinthifolius</i> *	Brazilian pepper
APIACEAE	CARROT FAMILY
<i>Foeniculum vulgare</i> *	sweet fennel
APOCYNACEAE	DOGBANE FAMILY
<i>Nerium oleander</i> *	oleander
ARECACEAE	PALM FAMILY
<i>Washingtonia filifera</i> *	fan palm
ASCLEPIADACEAE	MILKWEED FAMILY
<i>Asclepias fascicularis</i>	
ASTERACEAE	SUNFLOWER FAMILY
<i>Ambrosia acanthicarpa</i>	spiny ragweed
<i>Ambrosia psilostachya</i>	western ragweed
<i>Artemisia californica</i>	California sagebrush
<i>Artemisia douglasiana</i>	mugwort
<i>Baccharis emoryi</i>	Emory's baccharis
<i>Baccharis glutinosa</i>	mulefat
<i>Baccharis pilularis</i>	coyote bush
<i>Centaurea melitensis</i> *	Italian star thistle

* Indicates exotic species.

SCIENTIFIC NAME	COMMON NAME
<p><i>ASTERACEAE (Cont'd)</i></p> <p><i>Cirsium spp.</i> * <i>Conyza canadensis</i> * <i>Helianthus annuus</i> <i>Heterotheca grandiflora</i> <i>Latuca serriola</i> * <i>Senecio douglasii</i> <i>Silybum marianum</i> * <i>Xanthium strumarium</i> *</p>	<p>SUNFLOWER FAMILY (Cont'd)</p> <p>thistle common horseweed western sunflower telegraph weed prickly lettuce butterweed milk thistle cocklebur</p>
<p><i>BETULACEAE</i></p> <p><i>Alnus rhombifolia</i></p>	<p>BIRCH FAMILY</p> <p>white alder</p>
<p><i>BORAGINACEAE</i></p> <p><i>Amsinckia intermedia</i> <i>Heliotropium curvassavicum</i></p>	<p>BORAGE FAMILY</p> <p>common fiddleneck heliotrope</p>
<p><i>BRASSICACEAE</i></p> <p><i>Brassica geniculata</i> * <i>Brassica nigra</i> * <i>Raphanus sativus</i> * <i>Rorippa nasturtium-aquaticum</i> <i>Sisymbrium altissimum</i> *</p>	<p>MUSTARD FAMILY</p> <p>summer mustard black mustard wild radish water-cress tumble mustard</p>
<p><i>CACTACEAE</i></p> <p><i>Opuntia littoralis</i></p>	<p>CACTUS FAMILY</p> <p>prickly pear cactus</p>
<p><i>CAPRIFOLIACEAE</i></p> <p><i>Sambucus mexicana</i></p>	<p>HONEYSUCKLE FAMILY</p> <p>Mexican elderberry</p>
<p><i>CHENOPODIACEAE</i></p> <p><i>Atriplex semibaccata</i> * <i>Chenopodium album</i> * <i>Chenopodium ambrosioides</i> * <i>Salsola iberica</i> *</p>	<p>GOOSEFOOT FAMILY</p> <p>Australian saltbush lamb's quarters Mexican tea Russian thistle</p>

* Indicates exotic species.

SCIENTIFIC NAME	COMMON NAME
<p><i>CONVOLVULACEAE</i></p> <p><i>Convolvulus arvensis</i> * <i>Cuscuta californica</i></p>	<p>MORNING-GLORY FAMILY</p> <p>bindweed California dodder</p>
<p><i>CUCURBITACEAE</i></p> <p><i>Cucurbita foetidissima</i></p>	<p>GOURD FAMILY</p> <p>stinking gourd</p>
<p><i>CYPERACEAE</i></p> <p><i>Cyperus spp.</i> *</p>	<p>SEDGE FAMILY</p> <p>umbrella-sedge</p>
<p><i>EUPHORBIACEAE</i></p> <p><i>Ricinus communis</i> *</p>	<p>SPURGE FAMILY</p> <p>castor bean</p>
<p><i>FABACEAE</i></p> <p><i>Lotus scoparius</i> <i>Lupinus sp.</i> <i>Medicago polymorpha</i> * <i>Melilotus albus</i> *</p>	<p>LEGUME FAMILY</p> <p>deerweed lupine bur-clover white sweet-clover</p>
<p><i>FAGACEAE</i></p> <p><i>Quercus agrifolia</i> <i>Quercus lobata</i></p>	<p>OAK FAMILY</p> <p>coast live oak valley oak</p>
<p><i>GERANIACEAE</i></p> <p><i>Erodium cicutarium</i> *</p>	<p>GERANIUM FAMILY</p> <p>red-stemmed filaree</p>
<p><i>HYDROPHYLLACEAE</i></p> <p><i>Phacelia sp.</i></p>	<p>WATER-LEAF FAMILY</p> <p>phacelia</p>
<p><i>JUGLANDACEAE</i></p> <p><i>Juglans californica</i></p>	<p>WALNUT FAMILY</p> <p>California walnut</p>

* Indicates exotic species.

SCIENTIFIC NAME	COMMON NAME
<p><i>LAMIACEAE</i></p> <p><i>Marrubium vulgare</i> *</p> <p><i>Salvia apiana</i></p> <p><i>Salvia leucophylla</i></p>	<p>MINT FAMILY</p> <p>horehound</p> <p>white sage</p> <p>purple sage</p>
<p><i>LAURACEAE</i></p> <p><i>Umbellularia californica</i></p>	<p>LAUREL FAMILY</p> <p>California bay laurel</p>
<p><i>MALVACEAE</i></p> <p><i>Malva parviflora</i> *</p>	<p>MALLOW FAMILY</p> <p>cheeseweed</p>
<p><i>MYRTACEAE</i></p> <p><i>Eucalyptus camaldulensis</i> *</p> <p><i>Eucalyptus globosus</i> *</p>	<p>MYRTLE FAMILY</p> <p>red gum</p> <p>blue gum</p>
<p><i>OLEACEAE</i></p> <p><i>Fraxinus velutina</i></p>	<p>OLIVE FAMILY</p> <p>Arizona ash</p>
<p><i>PINACEAE</i></p> <p><i>Pinus sp.</i> *</p>	<p>PINE FAMILY</p> <p>pine</p>
<p><i>PLANTAGINACEAE</i></p> <p><i>Plantago major</i> *</p>	<p>PLANTAIN FAMILY</p> <p>common plantain</p>
<p><i>PLANTANACEAE</i></p> <p><i>Platanus racemosa</i></p>	<p>SYCAMORE FAMILY</p> <p>California sycamore</p>

* Indicates exotic species.

SCIENTIFIC NAME	COMMON NAME
<i>POACEAE</i>	GRASS FAMILY
<i>Arundo donax</i> *	giant reed
<i>Avena barbata</i> *	slender wild oat
<i>Bromus diandrus</i> *	ripgut brome
<i>Bromus rubens</i> *	red brome
<i>Cynodon dactylon</i> *	bermuda grass
<i>Hordeum leporinum</i> *	foxtail barley
<i>Paspalum dilatatum</i> *	dallis grass
<i>Sorghum halepense</i> *	Johnson grass
<i>Zea mays</i> *	cultivated corn
<i>POLYGONACEAE</i>	BUCKWHEAT FAMILY
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Polygonum spp.</i> *	
<i>Rumex crispus</i> *	curly dock
<i>RHAMNACEAE</i>	BUCKTHORN FAMILY
<i>Ceanothus cuneatus</i>	buckbrush
<i>Rhamnus californica</i>	coffeeberry
<i>ROSACEAE</i>	ROSE FAMILY
<i>Heteromeles arbutifolia</i>	toyon
<i>Rosa californica</i>	wild rose
<i>SALICACEAE</i>	WILLOW FAMILY
<i>Populus fremontii</i>	western cottonwood
<i>Populus spp.</i>	
<i>Salix spp.</i>	willow
<i>SAXIFRAGACEAE</i>	SAXIFRAGE FAMILY
<i>Ribes aureum</i>	golden currant
<i>Ribes speciosum</i>	fuchsia-flowering gooseberry
<i>SIMAROUBACEAE</i>	QUASSIA FAMILY
<i>Alianthus altissima</i> *	tree of heaven

* Indicates exotic species.

SCIENTIFIC NAME	COMMON NAME
<i>SOLANACEAE</i>	NIGHTSHADE FAMILY
<i>Datura meteloides</i> <i>Nicotana glauca</i> *	jimson weed Indian tree tobacoo
<i>TYPHACEAE</i>	CAT-TAIL FAMILY
<i>Typha sp.</i>	cat-tail
<i>ULMACEAE</i>	ELM FAMILY
<i>Ulmus parvifolia</i> *	Chinese elm
<i>VERBENACEAE</i>	VERVAIN FAMILY
<i>Verbena lasiostachya</i>	vervain, verbena
<i>VITACEAE</i>	GRAPE FAMILY
<i>Vitis girdiana</i>	California grape

* Indicates exotic species.