11. Madrona Marsh Preserve SEA

Location

General

The Madrona Marsh Preserve Significant Ecological Area (SEA) lies on the northeast corner of Madrona Avenue and Sepulveda Boulevard, within the City of Torrance. The SEA boundaries encompass the natural part of the Madrona Marsh Preserve, which is a remnant of one of the last natural vernal wetlands in the County. Vernal marshes fill in the rainy season (winter and spring in our area) and dry completely by the end of summer. They are heavily used by migrant birds in the spring, and in the fall if rains are early. They usually have other resident flora and fauna that are specially adapted to the seasonal cycle of wetting and gradual complete dessication.

The SEA is located within the Torrance United States Geological Survey (USGS) 7.5' California Quadrangle.

General Boundary and Resources Description

The SEA boundaries generally follow the Madrona Marsh Preserve boundary, which is surrounded by urban development. The Madrona Marsh Preserve is a park of the City of Torrance that is situated to the west of Maple Avenue, north of West Sepulveda Boulevard, east of Madrona Avenue and directly south of Plaza Del Amo. The Madrona Marsh Nature Center has offices and visitor activities to the north of Plaza Del Amo. The Nature Center supports an active volunteer and educational program for natural areas in this part of the Los Angeles Basin.

The SEA supports one of three remaining freshwater wetlands that once covered much of the southern and western Los Angeles Basin area. In the lowland are vernal marshes and an alkaline margin, and the upland supports a back dune system and vernal pools.

The freshwater plants and animals found here are completely surrounded by residential development and industrial facilities. This type of habitat has been filled, drained, and lost to development throughout most of the County. In some areas, man-made lakes and ponds have created small freshwater marshes along their edges, but this is minimal in comparison to the large expanses of freshwater marsh that were once found in the Los Angeles Basin.

Freshwater marsh habitat supports a great diversity of wildlife. Most of the bird species are dependent in some way on the surface moisture and vegetation, and would not be able to survive without it. It is also a habitat that supports several species of amphibians. Frogs and toads can be found here that are becoming extremely difficult to find throughout Southern California. The marsh is also an important area for migratory birds. Over 150 bird species have been recorded as using Madrona Marsh. Because the remnant freshwater marshes like Madrona Marsh are the only habitat of this type in southern portion of the County, they serve as miniature wildlife refuges. Kenneth Malloy Harbor Regional Park (Harbor Lake Regional Park SEA) and Ballona Freshwater Marsh (Ballona Wetlands SEA) are the two other freshwater marshes in this area. Waterfowl, shorebirds, marsh birds, and others can be found on the marsh in numbers during the spring and fall migration.

Vegetation

The SEA encompasses formations of vernal pool aquatics and emergent species, alkaline marsh and coastal bluff and dune scrub. The vernal pool margins support limited densities of native

grasses, but these do not form separate communities and are included within the vernal pool floral matrix. Sensitive plant species occurring or potentially occurring within the SEA are discussed in the Sensitive Biological Resources section.

Descriptions and general locations of the each plant community present within the SEA are given below.

Vernal Marsh: Develops in areas of still or slow-moving freshwater for 6 to 11 months of the year. This community is dominated by the perennial, emergent cattails (*Typha* spp.), which reach a height of four to five meters and often form a closed canopy. Bulrushes (*Schoenoplectus* spp.) are dominant below the cattail canopy. Vernal marsh is relatively uncommon; it occurs in small patches in natural or created sinks with water sources.

Corresponding MCV communities:

- *Phragmites australis* (common reed marshes) Herbaceous Alliance and Semi-Natural Stands
- *Lepidium latifolium* (perennial pepper weed patches) Semi-Natural Herbaceous Stands
- *Eleocharis macrostachya* (pale spike rush marshes) Herbaceous Alliance
- *Schoenoplectus californicus* (California bulrush marsh) Herbaceous Alliance
- *Typha* (*angustifolia, domingensis, latifolia*) (cattail marshes) Herbaceous Alliance
- *Sarcocornia* [*Salicornia*] *pacifica* (*Salicornia depressa*) (pickleweed mats) Herbaceous Alliance
- *Juncus articus* (var. *balticus, mexicanus*) [*Juncus balticus* ssp. *ater, J. mexicanus*] (Baltic and Mexican rush marshes) Herbaceous Alliance
- *Juncus effusus* (soft rush marshes) Herbaceous Alliance
- *Lemna* (*minor*) and relatives (duckweed blooms) Provisional Herbaceous Alliance

Vernal Pool Sites: Occur in several different areas within the SEA where unique sub-surface conditions of shallow layers of less permeable horizons allow for seasonal accumulations of freshwater. True vernal pools, which are rare in Southern California and extremely rare in the County, form seasonally in shallow, closed basins, usually where a lens of heavy clay soil holds surface water following rainfall events.

Corresponding MCV communities:

- *Eleocharis macrostachya* (pale spike rush marshes) Herbaceous Alliance
- *Juncus arcticus* (var. *balticus, mexicanus*) [*Juncus balticus* ssp. *ater, J. mexicanus*] (Baltic and Mexican rush marshes) Herbaceous Alliance
- *Juncus* (*oxymeris, xiphioides*) (iris-leaf rush seeps) Provisional Herbaceous Alliance

Alkali Marsh: Found on the margins of the vernal pools and is similar to the freshwater marsh, but with more salt-tolerant hydrophytes present. Species associated with this community include saltgrass (*Distichlis spicata*), mulefat (*Baccharis salicifolia*), alkali mallow (*Malvella leprosa*), toadrush (*Juncus bufonis*), spikeweed (*Centromadia pungens ssp. pungens*), cotton batting (*Gnaphalium stramineum*), and alkali heliotrope (*Heliotropium curassavicum var. oculatum*).

Corresponding MCV communities:

- *Distichlis spicata* (salt grass flats) Herbaceous Alliance
- *Spartina foliosa* (California cordgrass marsh) Herbaceous Alliance
- *Arthrocnemum subterminale* (Parish's glasswort patches) Herbaceous Alliance
- *Atriplex lentiformis* (quailbush scrub) Shrubland Alliance

Coastal Bluff and Dune Scrub: Here is a remnant of the El Segundo Dune System that occupied coastal areas along much of the Santa Monica Bay. The system consists of fine, sandy soil that dries rapidly. Plants typical of the dune scrub include dune buckwheat (*Eriogonum parvifolium*), rattle pod (*Astragalus trichopodus var. lonchus*), bladderpod (*Peritoma arborea*), deer weed (*Acmispon glaber*), sawtooth goldenbush (*Hazardia aquarrosa*), and California sunflower (*Helianthus californicus*).

Corresponding MCV communities:

- *Baccharis pilularis* (coyote brush scrub) Shrubland Alliance
- *Lupinus arboreus* (yellow bush lupine scrub) Shrubland Alliance and Semi-Natural Shrubland Stands
- *Lupinus chamissonis-Ericameria ericoides* (silver dune lupine–mock heather scrub) Shrubland Alliance

Wildlife

Wildlife diversity and abundance within the SEA is moderate, commensurate with the relative homogeneity of the natural open space habitat types. Wildlife within much of the SEA is comprised of species that typically occur within freshwater marsh and vernal pools. Birds of prey frequently forage over the pools and open grasslands, which form following the seasonal drying of the surface water. The Madrona Marsh vernal pools provide rare surface water habitat for wildlife in an otherwise developed region, and the ponds attract moderate numbers and diversity of migratory waterfowl. A number of local wildlife species are strictly limited to seasonal pool habitats. The vernal pool system in the Madrona Marsh and those in nearby Harbor Lake Regional Park SEA and the Ballona Wetlands freshwater marsh constitute the only local functional ecosystems of this unique type for wildlife species. The Madrona Marsh is the only one of these freshwater wetlands that has the yearly cycle of filling in the spring and complete dessication by late summer.

Analysis of invertebrates on any particular site usually is limited by a lack of specific data, but has sufficient acreage to support healthy populations of whatever invertebrate species are present, which is probably several hundred terrestrial species. The vernal pools, when ponded, form aquatic habitats for a moderately diverse fauna of freshwater arthropods and other invertebrates, including native fairy shrimp, aquatic flies, diving beetles, water scavengers, ostracods, and snails. Amphibians generally are relatively common in the pond. Frogs and toads are frequently seen.

Madrona Marsh, nearby Kenneth Malloy Harbor Regional Park, and Ballona freshwater marsh are the only habitats of this type in the southern portion of the County, and they serve as miniature wildlife refuges for bird species of open fresh water, waterfowl, shorebirds, marsh birds, and others can all be found on the marsh in numbers during the spring and fall migration.

Wildlife Movement

The vernal pools situated within this SEA serve as an isolated, high-quality resource providing habitat linkage for migratory waterfowl. The vernal pools teem with arthropod and amphibian activity, and provide essential feeding grounds for long-distance migrants, as well as for resident species of reptiles, birds and mammals. The ponds do not lie within any identified terrestrial movement routes for wildlife.

Sensitive Biological Resources

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, and/or rare. This is due to the species' declining or limited population sizes, which usually results from

habitat loss. Watch lists of such resources are maintained by the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), and special groups, such as the California Native Plant Society (CNPS). The following sections indicate the habitats as well as plant and animal species present, or potentially present within the SEA, which have been accorded special recognition.

Sensitive Plant Communities and Habitats

The SEA supports several habitat types considered sensitive by resource agencies. These are inventoried by California Department of Fish and Game (CDFG) in the California Natural Diversity Database (CNDDB) [2011]. The CNDDB includes state and federally-listed endangered, threatened, and rare vascular plants, as well as several sensitive vertebrate species. The SEA is configured to encompass regionally significant communities, which include pickleweed mats, California cordgrass marsh, Parish's glasswort patches, silver dune lupine-mock heather scrub, and all vernal pools. These communities or closely related designations are considered highest priority communities by the CDFG, indicating that they are declining in acreage throughout their range due to land use changes. These communities, or closely related designations, are considered high priority communities by the CDFG, which indicates that they are experiencing a decline throughout their range. The array and composition of these communities has been discussed in the Vegetation section. Changes to the classification system in some cases divides plant communities into many possible vegetation alliances communities, not all of which may be considered sensitive. For the purposes here previously listed communities with a least one sensitive alliance in the new format have been listed.

Sensitive Plant Species

The statuses of rare plants are hierarchically categorized by the CNPS using a rank and decimal system. The initial category level of Rare Plant Rank is indicated by the ranks 1A (presumed extinct in California), 1B (rare or endangered in California and elsewhere), 2 (rare or endangered in California but more common elsewhere), 3 (more information needed, a review list), and 4 (limited distribution). In cases where the CNPS has further identified the specific threat to the species, a decimal or Threat Code is added: .1 (seriously endangered in California), .2 (fairly endangered in the California), or .3 (not very endangered in the California).

The following special-status plant taxa have been reported or have the potential to occur within the SEA, based on known habitat requirements and geographic range information:

- Aphanisma (*Aphanisma blitoides*) RPR 1B.1
- Ventura marsh milk-vetch (*Astragalus pycnostachyus var. lanosissimus*) FE, SE, RPR 1B.1
- Coastal dunes milk-vetch (*Astragalus tener var. titi*) FE, SE, RPR 1B.1
- Coulter's saltbush (*Atriplex coulteri*) RPR 1B.2
- South coast saltscale (*Atriplex pacifica*) RPR 1B.2
- Parish's brittlescale (*Atriplex parishii*) RPR 1B.1
- Davidson's saltscale (*Atriplex serenana var. davidsonii*) RPR 1B.2
- Southern tarplant (*Centromadia parryi ssp. australis*) RPR 1B.1
- Orcutt's pincushion (*Chaenactis glabriuscula var. orcuttiana*) RPR 1B.1
- Coastal goosefoot (*Chenopodium littoreum*) RPR 1B.2
- Salt marsh bird's-beak (*Chloropyron maritimum ssp. maritimum*) FE, SE, RPR 1B.2
- Beach spectaclepod (*Dithyrea maritima*) ST, RPR 1B.1
- Coulter's goldfields (*Lasthenia glabrata ssp. coulteri*) RPR 1B.1
- Mud nama (*Nama stenocarpum*) RPR 2.2
- Moran's navarretia (*Navarretia fossalis*) FT, RPR 1B.1

- Prostrate vernal pool navarretia (*Navarretia prostrata*) RPR 1B.1
- Coast woolly-heads (*Nemacaulis denudata var. denudata*) RPR 1B.2
- South coast branching phacelia (*Phacelia ramosissima var. austrolitoralis*) RPR 4.2
- Brand's star phacelia (*Phacelia stellaris*) FC, RPR 1B.1
- Ballona cinquefoil (*Potentilla multijuga*) RPR 1A
- Estuary seablite (*Suaeda esteroa*) RPR 1B.2
- Vernal barley (*Hordeum intercedens*) RPR 3.2
- California Orcutt grass (*Orcuttia californica*) FE, SE, RPR 1B.1

Sensitive Animal Species

The following special-status animal species are reported or are likely to be present within the SEA based on habitat requirements and known range attributes:

- Mimic tryonia (*Tryonia imitator*) CDFG Special Animals List
- Belkin's dune tabanid fly (*Brennania belkini*) CDFG Special Animals List
- Busck's gallmoth (*Carolella busckana*) CDFG Special Animals List
- Sandy beach tiger beetle (*Cicindela hirticollis gravida*) CDFG Special Animals List
- Western beach tiger beetle (*Cicindela latesignata latesignata*) CDFG Special Animals List
- Senile tiger beetle (*Cicindela senilis frosti*) CDFG Special Animals List
- Globose dune beetle (*Coelus globosus*) CDFG Special Animals List
- Henne's eucosman moth (*Eucosma hennei*) CDFG Special Animals List
- El Segundo blue butterfly (*Euphilotes battoides allyni*) FE, Xerces: Critical
- Lange's El Segundo Dune weevil (*Onychobaris langei*) CDFG Special Animals List
- Wandering skipper (*Panoquina errans*) CDFG Special Animals List
- El Segundo flower-loving fly (*Rhaphiomidas terminatus terminatus*) CDFG Special Animals List
- Dorothy's El Segundo Dune weevil (*Trigonoscuta dorothea dorothea*) CDFG Special Animals List
- Silvery legless lizard (*Anniella pulchra pulchra*) FSS, SSC
- Western pond turtle (*Emys marmorata*) BLMS, FSS, SSC
- Coast horned lizard (*Phrynosoma blainvillii*) BLMS, FSS, SSC
- Tricolored blackbird (*nesting colony*) (*Agelaius tricolor*) BCC, BLMS, SSC, USBC, AWL, ABC
- Western snowy plover (*Charadrius alexandrinus nivosus*) FT, BCC, SSC, ABC, AWL, USBC
- California black rail (*Laterallus jamaicensis coturniculus*) BCC, ST, CDFG Fully Protected, USBC, AWL, ABC (*all listings include full species*)
- Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) SE
- California least tern (*Sternula antillarum browni*) FE, SE, CDFG Fully Protected, USBC, ABC (*both listings include full species*)
- South coast marsh vole (*Microtus californicus stephensi*) SSC
- Pacific pocket mouse (*Perognathus longimembris pacificus*) FE, SSC
- Southern California saltmarsh shrew (*Sorex ornatus salicornicus*) SSC

Ecological Transition Areas (ETAs)

There are no ETAs designated within this SEA.

Regional Biological Value

The SEA meets several SEA designation criteria and supports many regional biological values. Each criterion and how it is met is described below.

Criteria Analysis of the Madrona Marsh Preserve SEA

Criterion		Status	Justification
A)	The habitat of core populations of endangered or threatened plant or animal species.	Not Met	Not met, although the Madrona Marsh contains vernal pools, which may harbor threatened and endangered species in a unique location for the County.
B)	On a regional basis, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution.	Met	Madrona Marsh is one of three remaining wetlands with freshwater marsh in the County. (The others are Kenneth Malloy Harbor Regional Park and the Ballona Wetlands freshwater marsh.) This type of habitat once covered the South Bay area of the Los Angeles Basin, and supports several species of amphibians and vernal pools that are becoming rare throughout Southern California.
C)	Within the County, biotic communities, vegetative associations, and habitat of plant or animal species that are either unique or are restricted in distribution	Met	Madrona Marsh is one of three remaining wetlands with freshwater marsh in the County. This type of habitat once covered the South Bay area, and supports several species of amphibians including frogs and toads that are becoming rare throughout Southern California. In addition it has some vernal pools, which are very rare in the County.
D)	Habitat that at some point in the life cycle of a species or group of species, serves as concentrated breeding, feeding, resting, or migrating grounds and is limited in availability either regionally or in the County.	Met	Any natural wetland like the Madrona Marsh is an important area for amphibians, which need water for their aquatic larvae to complete their life cycle. The Marsh is very important for migratory birds as a waypoint during the spring and fall migration periods.
E)	Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent unusual variation in a population or community.	Met	Because the Madrona Marsh is one of only three remnants of the formerly extensive habitat, there is much interest in the local community and at academic and scientific institutions in preserving the area and acquiring adjacent habitat currently used for gas and oil extraction that can be restored to marsh habitat.
F)	Areas that would provide for the preservation of relatively undisturbed examples of the original natural biotic	Met	The Madrona Marsh is a remnant of the freshwater marsh once prevalent in this area of the County, and it is important to recognize

	communities in the County.		protection of the habitat.

In conclusion, the area is an SEA because it contains: B-C) biotic communities, vegetative associations, and habitat of plant and animal species that are either unique or are restricted in distribution in the County and regionally; D) concentrated breeding, feeding, resting, and migrating grounds, which are limited in availability in the County; E) unique habitat that is of scientific and educational value; and F) a very rare habitat of vernal marsh that has retained its unique yearly cycle.

11. Madrona Marsh Preserve SEA Sources

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