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WILDLIFE MANAGEMENT ALTERNATIVES

The following summaries describe the conceptual wildlife management alternatives for the Sepulveda Basin wildlife area. The three alternatives have been evaluated for the following factors:

- ▶ maintenance management
- ▶ wildlife value
- ▶ educational opportunities
- ▶ volunteer contribution
- ▶ safety conditions

The comparison of alternatives for these factors is presented in Table 1.

Exclusive Waterfowl Management Alternative

This alternative would design the wildlife area to attract waterfowl, with an emphasis on management for migrating species such as the Canada goose. The management emphasis would maintain an open area for wildlife foraging. Forage could be provided through farming of crops such as barley or sorghum in the open, flat fields of the wildlife area. Grain or seed crops would provide a food source for rodents as well as bird species. Therefore, raptors would be expected to be key species in the area. Fallow fields would attract other bird species such as the California horned lark and the tricolor blackbird.

Waterfowl/Multispecies Management Alternative

This alternative would manage the wildlife area to increase the diversity of habitats and species, while still attracting waterfowl. Habitat enhancement would increase the riparian woodland and scrub to provide appropriate areas for the least Bell's vireo, yellow breasted chat, and warblers. Upland areas would be planted with native shrubs and grass species to allow as much diversity as possible. An increase in plant diversity would attract invertebrates such as insects to serve as a food source for insectivorous wildlife species.

Minimal Management Alternative

This alternative would rely on the range of existing habitats and wildlife species. In general, the area would be enhanced where practical in terms of additional vegetation and trails. Perennial and annual native grasses would be used in the open areas to provide low maintenance forage for the migratory waterfowl. As with the other alternatives, the lake and pond would be available for educational opportunities.

The main differences of this alternative from the preceding two alternatives is that the forage areas for waterfowl would not be intensively managed. In addition, the riparian areas would remain small and not be managed for structural diversity.

Table 1

COMPARISON OF MANAGEMENT ALTERNATIVES

Management Options	Routine Management	Flood Management	Wildlife Value	Educational Opportunities	Volunteer Help	Safety Conditions
Waterfowl Exclusive Management	<ul style="list-style-type: none"> • High annual maintenance in farming for Canada goose food crop 	<ul style="list-style-type: none"> • Some maintenance for Canada goose food crop • Maintenance cleanup after flood events 	<ul style="list-style-type: none"> • Provides low height cover • Provides food resources for migratory and other waterfowl • Provides food resources for raptors 	<ul style="list-style-type: none"> • Pond ecology • Waterfowl identification and behavior • Raptor identification and behavior 	<ul style="list-style-type: none"> • Medium requirement; planting and trash cleanup • Docent tours 	<ul style="list-style-type: none"> • Fair, dense vegetation in a narrow band at wildlife lake
Waterfowl/ Multispecies Management	<ul style="list-style-type: none"> • Some maintenance of perennial plants for Canada goose food crop • High maintenance for initial establishment of perennial plants 	<ul style="list-style-type: none"> • Some maintenance in potential replanting of perennial plants • Maintenance cleanup after flood events 	<ul style="list-style-type: none"> • Provides multi-storied cover for a diversity of wildlife • Provides food resources for waterfowl • Provides food resources for raptors 	<ul style="list-style-type: none"> • Pond ecology • Species interaction • Plant succession • Waterfowl identification and behavior • Raptor identification and behavior 	<ul style="list-style-type: none"> • High requirement; planting and trash cleanup • Wildflower area displays • Docent tours 	<ul style="list-style-type: none"> • Low, increased vegetation in many areas will be tall and dense
Minimal Management	<ul style="list-style-type: none"> • Some maintenance to maintain multistoried riparian vegetation • Low maintenance • High maintenance for initial establishment of perennial plants 	<ul style="list-style-type: none"> • Low maintenance in potential replanting of perennial plants • Maintenance cleanup after flood events 	<ul style="list-style-type: none"> • Provides limited multistoried cover • Provides food resources for waterfowl • Provides resources for raptors 	<ul style="list-style-type: none"> • Pond ecology • Waterfowl identification and behavior • Raptor identification and behavior 	<ul style="list-style-type: none"> • Medium requirement; planting and trash cleanup • Docent tours 	<ul style="list-style-type: none"> • Fair, dense vegetation in a narrow band at wildlife lake

ALTERNATIVE MANAGEMENT PLAN FOR THE SEPULVEDA BASIN WILDLIFE AREA

INTRODUCTION

108 48 The Sepulveda Basin Wildlife Management area is located in the eastern portion of the Sepulveda Dam and Flood Control Basin. This designated area comprises approximately 48 acres, which includes an 11 acre wildlife lake. The purpose of this document is to develop a range of conceptual alternative wildlife management plans for the area. All alternative plans considered here have been developed based on several management criteria:

- ▶ the wildlife management area is within the 50 year floodplain and will be subject to periodic flooding,
- ▶ the wildlife lake and pond receive a perennial flow of water,
- ▶ particular standards for public safety must be maintained relative to vegetation density, and
- ▶ the management plan should increase the educational value of the wildlife area.

Existing Conditions

In general, the Sepulveda basin is considered an important area for birds, especially migrating waterfowl. The bird list for the basin is near 200 species of birds, including some species that are considered rare. The wildlife management area supports several vegetation communities, including willow-cottonwood woodland, willow scrub, mulefat scrub, and ruderal vegetation. Figure 1 shows the existing vegetation in the wildlife management area.

Along the Haskell Channel, dense riparian stands of cottonwoods (*Populus fremontii*) and willows (*Salix* sp.) were present with adjacent stands of mulefat (*Baccharis salisifolia*).

Sod farming covers the area west of the channel to Woodley Avenue and south of Woodley Avenue Park to Burbank Boulevard. The wildlife lake east of Haskell Channel supports few riparian species, but is ringed with wild rhubarb (*Rumex hymenosepalus*). This lake has a capacity of 13.1 million gallons, and currently is flushed with 4.7 million gallons of water each day from the Tillman reclamation plant. The lake and the surrounding vegetation support a diversity of wildlife species including both migratory and resident species. Some of the wildlife observed utilizing the lake include, the Canada goose (*Branta canadensis*), American wigeon (*Anas americana*), blue-winged teal (*Anas discors*), green-winged teal (*Anas crecca*), northern shoveler (*Anas clypeata*), Ross's goose (*Chen rossii*) and snow goose (*Chen caerulescens*). The vegetation between the lake and the channel has been planted, and includes cottonwoods,

willows, golden currant (*Ribes aureum*), and wild rose (*Rosa californica*). The wildlife species utilizing this vegetation include yellow-rumped warbler (*Dendroica coronata*), palm warbler (*Dendroica palmarum*), Anna's hummingbird (*Calypte anna*), song sparrow (*Melospiza melodia*), California towhee (*Pipilo crissalis*), and red-winged blackbird (*Agelaius phoeniceus*). Evidence of the presence of other wildlife included coyote (*Canis latrans*), fox and rabbit tracks, and scat from skunk, fox and coyote. The area east of the lake and extending to the dam contains ruderal species, including mustards (*Brassica* sp.), annual grasses (*Bromus* sp.), Russian thistle (*Salsola iberica*) and some mulefat. The open grasslands east of the lake provides forage for great egrets (*Casmerodius albus*), snowy egret (*Egretta thula*), Canada geese and several raptor species, including American kestrel (*Falco sparverius*) and Cooper's hawk (*Accipiter cooperii*). At the south end of the pond is an ephemeral wetland which presently supports mustards and grasses, but no sedges, cattails or other marsh plants.

Revegetation has been initiated along the north and south sides of Burbank Boulevard, and plantings include oaks (*Quercus agrifolia* and *Q. lobata*), sugar bush (*Rhus ovata*), laurel sumac (*Malosma laurina*), fuchsia-flowering gooseberry (*Ribes speciosum*), California sagebrush (*Artemisia californica*) and other coastal sagescrub components. Wildlife species typical of coastal sage scrub were observed in the scrubby vegetation south of Burbank Boulevard. These include the California thrasher (*Toxostoma redivivum*), white-crowned sparrow (*Zonotrichia leucophrys*), California towhee, bushtit (*Psaltriparus minimus*), Western kingbird (*Tyrannus verticalis*), and western fence lizard (*Sceloporus occidentalis*).

South of Burbank Boulevard, the wildlife area contains a small pond which has been surrounded with planted ash (*Fraxinus dipetala*), bay laurel (*Umbellularia californica*) and willows. Some of the wildlife species observed near this small pond include mallard (*Anas platyrhynchos*), cinnamon teal (*Anas cyanoptera*), black-crowned night heron (*Nycticorax nycticorax*), belted kingfisher (*Ceryle alcyon*), American coot (*Fulica americana*), common yellowthroat (*Geothlypis trichas*) and black phoebe (*Sayornis nigricans*). Large stands of mulefat and broom (*Baccharis emoryi*) also occur. Approaching the southern part of the dam, annual grasses and cocklebur (*Xanthium strumarium*) make up a major component of the vegetation. The areas adjacent to the Los Angeles River are either devoid of vegetation or are densely vegetated with cocklebur, conditions which likely were caused by flooding in these areas. Turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk, and American kestrel were observed foraging over the open areas south of Burbank Boulevard.

The riparian zones south of Burbank Boulevard (both the Haskell Channel and the Los Angeles River) contain trash (plastic bags, shopping carts, etc.) from the recent flood events.

All of the communities that presently exist provide an indication of areas that can be managed to increase the habitats for a variety of wildlife species. In addition, conditions noted after recent flood events demonstrate the need for certain management and planning for appropriate vegetation for the area.

WILDLIFE MANAGEMENT ALTERNATIVES

This section describes the wildlife management alternatives. Key wildlife species targeted for each alternative are noted, and potential plant palettes are described. Each alternative is evaluated for the following factors:

- ▶ maintenance management
- ▶ wildlife value
- ▶ educational opportunities
- ▶ volunteer contribution
- ▶ safety conditions

Exclusive Waterfowl Management Alternative

This alternative would design the wildlife area to attract waterfowl, with an emphasis on management for migrating species such as the Canada goose. The management emphasis would maintain an open area for wildlife foraging. Forage could be provided through farming of crops such as barley or sorghum in the open, flat fields of the wildlife area. Grain or seed crops would provide a food source for rodents as well as bird species. Therefore, raptors would be expected to be key species in the area. Fallow fields would attract other bird species such as the California horned lark and the tricolor blackbird. Figure 2 illustrates a conceptual habitat layout under the waterfowl management alternative.

The following list represents targeted wildlife species with this waterfowl plan:

Waterfowl	
Canada goose	<i>Branta canadensis</i>
Ross's goose	<i>Chen rossii</i>
snow goose	<i>Chen caerulescens</i>
greater white-fronted goose	<i>Anser albifrons</i>
Western grebe	<i>Aechmophorus occidentalis</i>
pied-billed grebe	<i>Podilymbus podiceps</i>
horned grebe	<i>Podiceps auritus</i>
eared grebe	<i>Podiceps nigricollis</i>
bufflehead	<i>Bucephala albeola</i>
mallard	<i>Anas platyrhynchos</i>
blue-winged teal	<i>Anas discors</i>
green-winged teal	<i>Anas crecca</i>
cinnamon teal	<i>Anas cyanoptera</i>
American wigeon	<i>Anas americana</i>
Northern shoveler	<i>Anas clypeata</i>
Canvasback	<i>Aythya valisineria</i>
ring-necked duck	<i>Aythya collaris</i>
ruddy duck	<i>Oxyura jamaicensis</i>
common merganser	<i>Mergus merganser</i>
hooded merganser	<i>Lophodytes cucullatus</i>
American coot	<i>Fulica americana</i>
Aquatic Species	
mosquito fish	<i>Gambusia</i> sp.
California red-legged frog	<i>Rana aurora draytonii</i>
Southwestern pond turtle	<i>Clemmys marmorata pallida</i>

The following list represents a range of plant species suitable for this management alternative:

Grain Crops	
Barley	<i>Hordeum</i> sp.
Corn	<i>Zea mays</i>
Rice	<i>Oryza sativa</i>)
Millet	<i>Setaria italica</i> **
Sorghum	<i>Sorghum</i> sp.
Rye	<i>Secale cereale</i>
Wheat	<i>Triticum aestivum</i>

Grasses	
Bromes Dropseed Blue grass Panic grass Saltgrass	<i>Bromus</i> sp.* <i>Sporobolus</i> sp. <i>Poa</i> sp. <i>Panicum</i> sp. <i>Distichlis spicata</i>
Upland Species	
Oaks Gooseberries and Currants Wild Rose Lemonadeberry Laurel sumac California lilac Toyon Saltbush California sagebrush Pepper grass Tansy mustard Popcorn flower	<i>Quercus agrifolia</i> *, <i>Q. lobata</i> *, <i>Q. engelmannii</i> <i>Ribes</i> sp.* <i>Rosa californica</i> * <i>Rhus ovata</i> * <i>Malosma laurina</i> * <i>Ceanothus</i> sp.* <i>Heteromeles arbutifolia</i> * <i>Atriplex lentiformis</i> ssp. <i>breweri</i> <i>Artemisia californica</i> * <i>Lepidium</i> sp. <i>Descuriana pinnata</i> <i>Plagiobothrys</i> sp.
Riparian	
Mulefat	<i>Baccharis salisifolia</i> *
Emergent	
Cat-tails Bulrush Sedge Pickleweed	<i>Typha latifolia</i> <i>Scirpus</i> sp. <i>Carex</i> sp. <i>Salicornia virginica</i>
Submergent	
Pondweed Duckweed	<i>Potamogeton</i> sp. <i>Lemna</i> sp.
*already found on-site **great for all seed-eaters	

Management Considerations

Initial construction of fences designed to protect foraging areas for geese would be relatively labor intensive over the short-term. Routine maintenance of the wildlife area under this approach would be relatively easy once the initial hydroseeding is accomplished. If seeding is done just prior to the rainy season, the plantings should not require irrigation unless drought

conditions persist. Maintenance after flooding would require seeding of those areas damaged by flood conditions. If repair of damaged areas is delayed until after the potential flooding season then there would be a loss of potential foraging areas for migratory and wintering waterfowl. Areas most frequently flooded would be managed by either leaving or enhancing the present habitat found there.

Wildlife Value

The wildlife expected under this management approach would consist mainly of migratory and resident waterfowl. The grassy foraging areas would be tailored for Canada geese but other wildlife would also benefit. Raptors would be expected to utilize the grasslands as well as a variety of passerine birds, small mammals, and reptiles. Small passerine birds, rodents, and reptiles would also utilize the shrubs in the vicinity of the existing lake. The primary benefit of the area would be for waterfowl.

Educational Opportunities

The waterfowl exclusive approach would have some educational value in creating public awareness of migrating waterfowl. School groups and local Audubon chapters could utilize the area to observe resident and migratory waterfowl. In addition, the wildlife lake and pond would provide an opportunity to demonstrate aspects of pond ecology. The wildlife lake would provide habitat for sensitive pond species such as the California red legged frog and the southwestern pond turtle. There would be limited educational benefits in regards to other types wildlife, especially birds and invertebrates that would normally inhabit larger areas of riparian vegetation and scrub communities.

Volunteer Contribution

Volunteer groups could be enlisted to assist in keeping the area clear of trash and in limited maintenance of the area. Docent tours could be provided on a seasonal basis.

Safety Conditions

Under this plan, safety for visitors to the wildlife area would be easy to accomplish due to the lack of dense vegetation. The areas around the lakes would remain open with low growing shrubs occurring around portions of the lake and wide expanses of grasses around the remainder of the lake. This would provide good visibility throughout the wildlife area, and thus provide little cover for any unlawful activity.

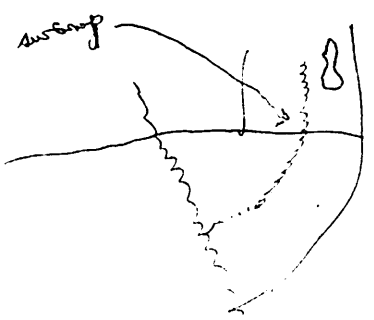
Waterfowl/Multispecies Management Alternative

This alternative would manage the wildlife area to increase the diversity of habitats and species, while still attracting waterfowl. Habitat enhancement would increase the riparian woodland and scrub to provide appropriate areas for the least Bell's vireo, yellow breasted chat and warblers. upland areas would be planted with native shrubs and grass species to allow as much diversity as possible. An increase in plant diversity would attract invertebrates such as insects to serve as a food source for insectivorous wildlife species. Figure 3 presents a conceptual plan for the habitats under the waterfowl/multispecies alternative.

The following list represents the targeted wildlife species for this multi-species plan:

Waterfowl	
Canada goose	<i>Branta canadensis</i>
Ross's goose	<i>Chen rossii</i>
snow goose	<i>Chen caerulescens</i>
greater white-fronted goose	<i>Anser albifrons</i>
Western grebe	<i>Aechmophorus occidentalis</i>
pied-billed grebe	<i>Podilymbus podiceps</i>
horned grebe	<i>Podiceps auritus</i>
eared grebe	<i>Podiceps nigricollis</i>
bufflehead	<i>Bucephala albeola</i>
mallard	<i>Anas platyrhynchos</i>
blue-winged teal	<i>Anas discors</i>
green-winged teal	<i>Anas crecca</i>
cinnamon teal	<i>Anas cyanoptera</i>
American wigeon	<i>Anas americana</i>
Northern shoveler	<i>Anas clypeata</i>
Canvasback	<i>Aythya valisineria</i>
ring-necked duck	<i>Aythya collaris</i>
ruddy duck	<i>Oxyura jamaicensis</i>
common merganser	<i>Mergus merganser</i>
hooded merganser	<i>Lophodytes cucullatus</i>
American coot	<i>Fulica americana</i>
Aquatic species	
mosquito fish	<i>Gambusia sp.</i>
California red-legged frog	<i>Rana aurora draytonii</i>
Southwestern pond turtle	<i>Clemmys marmorata pallida</i>

horn + rails →
 barn owl
 great horned owl
 tree shrew
 swift?



Other Wildlife	
great blue heron	<i>Ardea herodias</i>
great egret	<i>Casmerodius albus</i>
snowy egret	<i>Egretta thula</i>
black-crowned night heron	<i>Nycticorax nycticorax</i>
least Bell's vireo	<i>Vireo bellii pusillus</i>
southwestern willow flycatcher	<i>Empidonax traillii extimus</i>
yellow-breasted chat	<i>Icteria virens</i>
California yellow-billed cuckoo	<i>Coccyzus americanus</i>
common yellowthroat	<i>Geothlypis trichas</i>
yellow warbler	<i>Dendroica petechia</i>
horned lark	<i>Eremophila alpestris</i>
loggerhead shrike	<i>Lanius ludovicianus</i>
Cooper's hawk	<i>Accipiter cooperii</i>
sharp-shinned hawk	<i>Accipiter striatus</i>
Northern harrier	<i>Circus cyaneus</i>
black-shouldered kite	<i>Elanus caeruleus</i>
Osprey	<i>Pandion haliaetus</i>
American peregrine falcon	<i>Falco peregrinus anatum</i>
short-eared owl	<i>Asio flammeus</i>

The following list represents a range of plant species appropriate for use with this management alternative:

Grain Crops (Optional)	
Barley	<i>Hordeum sp.</i>
Corn	<i>Zea mays</i>
Millet	<i>Setaria italica*</i>
Sorghum	<i>Sorghum sp.</i>
Wheat	<i>Triticum aestivum</i>
Grasses	
Bromes	<i>Bromus sp.*</i>
Dropseed	<i>Sporobolus sp.</i>
Blue grass	<i>Poa sp.</i>
Panic grass	<i>Panicum sp.</i>
Saltgrass	<i>Distichlis spicata</i>
Needlegrass	<i>Stipa sp.</i>

Upland Species	
Oaks Gooseberries and Currants Wild Rose Lemonadeberry Laurel sumac Saltbush California sagebrush California lilac Toyon California Fuchsia Pepper grass Tansy mustard Popcorn flower Assorted wildflowers including: poppies lupines owl's clover tidy tips	<i>Quercus agrifolia*</i> , <i>Q. lobata*</i> , <i>Q. engelmannii</i> <i>Ribes</i> sp.* <i>Rosa californica*</i> <i>Rhus ovata*</i> <i>Malosma laurina*</i> <i>Atriplex lentiformis</i> ssp. <i>breweri</i> <i>Artemisia californica*</i> <i>Ceanothus</i> sp.* <i>Heteromeles arbutifolia*</i> <i>Zauchneria californica</i> <i>Lepidium</i> sp. <i>Descuriana pinnata</i> <i>Plagiobothrys</i> sp. <i>Eschscholtzia californica</i> (orange) <i>Lupinus</i> sp. (purple) <i>Orthocarpus purpurascens</i> (pink) <i>Layia platyglossa</i> (yellow)
Riparian	
Mulefat Willows Cottonwood Sycamore	<i>Baccharis salisifolia*</i> <i>Salix</i> sp.* <i>Populus fremontii*</i> <i>Platanus racemosa*</i>
Emergent	
Cat-tails Bulrush Sedge Pickleweed	<i>Typha latifolia</i> <i>Scirpus</i> sp. <i>Carex</i> sp. <i>Salicornia virginica</i>
Submergent	
Pondweed Duckweed	<i>Potamogeton</i> sp. <i>Lemna</i> sp.
*excellent for all seed eaters	

Management Considerations

Initial plantings of seedlings and cuttings would be very labor intensive. Since irrigation is not considered a beneficial practice in the long run, there would be no maintenance of an irrigation system. Periodic checks of survivability of plantings would be conducted followed by replanting of those that do not survive. As survivability increases, the maintenance time for replanting would decrease. Until the time that plantings do become established, a regular weeding schedule would have to be implemented. This would be expected to decrease in frequency as more plantings survive and outcompete the weeds. There would be some maintenance associated with periodic trimming of vegetation that encroaches onto trails. Following flooding episodes, the

WV need spray down
↓

maintenance associated with multispecies plantings would be relatively minimal. The riparian species that would be planted are adapted to periodic inundation so mortality would not be expected to be high. Periodic checks following flooding incidents should be conducted to determine the survivorship of plantings. Those plantings damaged by intensive flooding episodes would have to be replaced once the threat of floods has diminished.

In addition, management for particular species such as the least Bell's vireo eventually would include the thinning of mature riparian vegetation in order to provide the appropriate under- and mid-story structure required for this species.

Wildlife Value

The wildlife value of the area would be expected to be high. Riparian woodlands and associated ponds support a high diversity of wildlife that includes raptors, numerous passerine birds, limited waterfowl, reptiles, amphibians, rodents, and other small and medium-sized mammals. Numerous sensitive wildlife species utilize riparian habitats and thus would have the potential to occur in the habitat in the wildlife area. Invertebrates would increase in the wildlife area.

Educational Opportunities

The waterfowl/multispecies alternative would have a high educational value for school and other community groups as well as Audubon chapters. There would be a good opportunity for education focused on the ecosystem concept since the area would support a high diversity of wildlife and plants. Although still present, there would be less focus on migratory and resident waterfowl.

Volunteer Contribution

Volunteer groups could be utilized to assist in the initial and follow-up plantings of riparian plant species. In addition, they could also assist in the trash pick-up, clearing of trails and general maintenance of the wildlife area. Docent tours could be provided year around.

Safety Conditions

Managing the wildlife area for a multitude of wildlife species would mean the creation of a dense growth of vegetation. This would include tall trees and a dense understory. This type of habitat could create some safety hazards for the general viewing public. These hazards include the potential for pedestrian injury. The dense vegetation in trail areas could provide cover for unlawful activities.

Minimal Management Alternative

This alternative would rely on the range of existing habitats and wildlife species. In general, the area would be enhanced where practical in terms of additional vegetation and trails. Perennial and annual native grasses would be used in the open areas to provide low maintenance forage for the migratory waterfowl. As with the other alternatives, the lake and pond would be available for educational opportunities.

The main differences of this alternative from the proceeding two alternatives is that the forage areas for waterfowl would not be intensively managed. In addition, the riparian areas would remain small and not be managed for structural diversity. Figure 4 presents a conceptual plan for the habitats under the minimal management alternative.

The following list represents the targeted wildlife with the minimal management plan:

Waterfowl	
Canada goose	<i>Branta canadensis</i>
Ross's goose	<i>Chen rossii</i>
snow goose	<i>Chen caerulescens</i>
greater white-fronted goose	<i>Anser albifrons</i>
Western grebe	<i>Aechmophorus occidentalis</i>
pied-billed grebe	<i>Podilymbus podiceps</i>
horned grebe	<i>Podiceps auritus</i>
eared grebe	<i>Podiceps nigricollis</i>
bufflehead	<i>Bucephala albeola</i>
mallard	<i>Anas platyrhynchos</i>
blue-winged teal	<i>Anas discors</i>
green-winged teal	<i>Anas crecca</i>
cinnamon teal	<i>Anas cyanoptera</i>
American wigeon	<i>Anas americana</i>
Northern shoveler	<i>Anas clypeata</i>
Canvasback	<i>Aythya valisineria</i>
ring-necked duck	<i>Aythya collaris</i>
ruddy duck	<i>Oxyura jamaicensis</i>
common merganser	<i>Mergus merganser</i>
hooded merganser	<i>Lophodytes cucullatus</i>
American coot	<i>Fulica americana</i>
Aquatic species	
mosquito fish	<i>Gambusia sp.</i>

Other Wildlife	
great blue heron	<i>Ardea herodias</i>
great egret	<i>Casmerodius albus</i>
snowy egret	<i>Egretta thula</i>
black-crowned night heron	<i>Nycticorax nycticorax</i>
Cooper's hawk	<i>Accipiter cooperii</i>

The following list represents a range of plant species suitable for use in this alternative:

Grain Crops (Optional)	
Millet	<i>Setaria italica**</i>
Grasses	
Bromes	<i>Bromus sp.*</i>
Blue grass	<i>Poa sp.</i>
Needlegrass	<i>Stipa sp.</i>
Upland Species	
Oaks	<i>Quercus agrifolia*</i> , <i>Q. lobata*</i> , <i>Q. engelmannii</i>
Gooseberries and Currants	<i>Ribes sp.*</i>
Wild Rose	<i>Rosa californica*</i>
Lemonadeberry	<i>Rhus ovata*</i>
Laurel sumac	<i>Malosma laurina*</i>
Toyon	<i>Heteromeles arbutifolia*</i>
California sagebrush	<i>Artemisia californica*</i>
California lilac	<i>Ceanothus sp.*</i>
Pepper grass	<i>Lepidium sp.</i>
Tansy mustard	<i>Descuriana pinnata</i>
Riparian	
Mulefat	<i>Baccharis salisifolia*</i>
Willows	<i>Salix sp.*</i>
Cottonwood	<i>Populus fremontii*</i>
Sycamore	<i>Platanus racemosa*</i>
Emergent	
Cat-tails	<i>Typha latifolia</i>
Bulrush	<i>Scirpus sp.</i>
Sedge	<i>Carex sp.</i>
Submergent	
Pondweed	<i>Potamogeton sp.</i>
Duckweed	<i>Lemna sp.</i>
* already found on-site	
** excellent for all seed eaters	

Management Considerations

Under the minimal management approach there would be an initial cleanup phase which consists of trash pickup and dead vegetation removal. In addition, trails would be repaired in the southern portion of the wildlife area. A minimal amount of planting of native vegetation would be initially followed by minimal weeding of those areas where planting has been done. An irrigation system would not be utilized so there would be no maintenance associated with system repair. Minimal maintenance for trash cleanup and trail maintenance would be required. Following flooding incidents there would also be minimal maintenance required for trash and debris removal and trail repair.

Wildlife

As the area currently exists, it supports a fair number of wildlife species. The habitat in the northern portion of the wildlife area is mainly utilized by waterfowl, a number of passerine birds, a few small- and medium-sized mammals, and a few reptiles. The southern portion of the wildlife area supports a higher diversity of wildlife due to the greater number of vegetation communities present. The existing riparian woodland, coastal sage scrub, and the pond provide not only a wide variety of foraging opportunities for wildlife but also a wide structural diversity in the heights of the vegetation present. The riparian woodland provides roosting and nesting sites for raptors. The pond in the southern portion is surrounded by much heavier vegetation and thus is more attractive to wildlife because of the protection offered by the vegetation.

Educational Value

The wildlife area, as it currently exists, has limited educational value. Under this management approach the educational value would not be expected to increase much. Local school and community groups would learn a limited amount about migratory and resident waterfowl. The waterfowl identification pictures posted at the blinds and at the viewing bench provide the identification of a few species. More of these could be posted to enhance the educational value of the wildlife area. Development of a description of the lake and pond ecology would increase the value of the area for educational purposes.

Volunteer Contribution

Volunteers could be utilized to assist in trash and debris pickup as well as minimal maintenance duties. The volunteer assistance would not be expected to be as high as the other approaches because the area would not be much improved from its current status. Docent tours could be conducted on a seasonal basis.

Safety Conditions

In general, under the minimal management approach the character of the wildlife area would remain as it currently exists. The safety factor is low in the northern portion of the wildlife area due to the open character of the vegetation. The denser vegetation in the southern portion of the wildlife area is a little less safe for the general public because there are places attractive to criminal elements. There currently is limited pedestrian hazard in the southern portion due to the extensive cover of fallen, dead vegetation. Once these areas are cleaned up and maintained the hazard would be reduced.

COMPARISON OF THE ALTERNATIVES

Table 1 summarizes the three alternatives. The table provides a comparison for maintenance, wildlife value, educational opportunities, volunteer contribution, and safety conditions for the alternatives.

Table 1

COMPARISON OF MANAGEMENT ALTERNATIVES

Management Options	Routine Management	Flood Management	Wildlife Value	Educational Opportunities	Volunteer Help	Safety Conditions
Waterfowl Exclusive Management	<ul style="list-style-type: none"> • High annual maintenance in farming for Canada Goose food crop. 	<ul style="list-style-type: none"> • High annual maintenance in farming for Canada Goose food crop. 	<ul style="list-style-type: none"> • Provides low height cover • Provides food resources for migratory and other waterfowl. 	<p>Good study area for:</p> <ul style="list-style-type: none"> • Pond ecology • Waterfowl identification and behavior • Raptors 	<ul style="list-style-type: none"> • Medium requirement; planting, and trash clean-up. • Docent tours. 	<ul style="list-style-type: none"> • Fair, only visitor areas and trails will be surrounded by tall, dense vegetation in a narrow band.
Waterfowl/Multispecies Management	<ul style="list-style-type: none"> • Some maintenance in initial planting of perennial plants 	<ul style="list-style-type: none"> • Some maintenance in possible replanting of perennial plants. 	<ul style="list-style-type: none"> • Provides multi-storied cover for a diversity of wildlife • Provides cover for waterfowl as well. 	<p>Excellent study area for:</p> <ul style="list-style-type: none"> • Pond ecology • Species interaction • Invertebrates • Plant succession • Raptors 	<ul style="list-style-type: none"> • High requirement; planting and trash clean-up • Docent tours. 	<ul style="list-style-type: none"> • Low, increased vegetation in many areas will be tall and dense.
Minimal Management	<ul style="list-style-type: none"> • Low maintenance in initial planting of perennial plants 	<ul style="list-style-type: none"> • Low maintenance in possible replanting of perennial plants 	<ul style="list-style-type: none"> • Provides limited cover and food sources. 	<p>Study area for:</p> <ul style="list-style-type: none"> • Limited number of species • Pond ecology • Waterfowl • Raptors. 	<ul style="list-style-type: none"> • Medium requirement; planting, and trash clean-up. 	<ul style="list-style-type: none"> • Fair, only visitor areas and trails will be surrounded by tall, dense vegetation in a narrow band.

APPENDIX

RESULTS OF BIOLOGICAL RECONNAISSANCE

The existing vegetation survey was conducted on January 28, 1992 in the Sepulveda basin wildlife area. The area of the proposed wildlife management plan was surveyed by a site walkover, at which time the vegetation was mapped and a plant species list was developed (see Table 1). Adjacent areas of the Sepulveda basin were surveyed also, but much more cursorily, as most of the areas were already managed as sod farmland, parkland, golf courses, playing fields and other recreational areas.

Two wildlife surveys have been conducted in the Sepulveda Basin Wildlife Area; the first on December 4, 1992 and the second on January 28, 1993. These surveys consisted of walking the trails looking for wildlife species or evidence of the presence of wildlife such as tracks or scat. All species or sign seen during the surveys were documented. In addition, those species reported by Audubon Society members or Parks Department employees who were bird-watching or conducting maintenance work during the same time as the wildlife survey were also documented. The weather conditions during the first survey consisted of overcast skies and light showers during the latter part of the survey. The second survey was conducted under clear skies with temperatures in the mid-seventies. The following list contain the names of those species observed or reported during each of the two surveys (see Table 2).

Table 1

PLANT SPECIES LIST - EXISTING VEGETATION

Scientific Name	Common Name
ANACARDIACEAE <i>Malosma laurina</i> <i>Rhus ovata</i>	SUMAC FAMILY laurel sumac sugar bush
APIACEAE <i>Foeniculum vulgare*</i>	CARROT FAMILY sweet fennel
ASTERACEAE <i>Artemisia californica</i> <i>Artemisia douglasiana</i> <i>Baccharis emoryi</i> <i>Baccharis salisifolia</i> <i>Helianthus annuus</i> <i>Heterotheca grandiflora</i> <i>Conyza canadensis*</i> <i>Xanthium strumarium*</i>	SUNFLOWER FAMILY California sagebrush mugwort mulefat sunflower telegraph weed horseweed cocklebur
BRASSICACEAE <i>Brassica geniculata*</i> <i>Brassica nigra*</i> <i>Rorippa nasturtium-aquaticum*</i>	MUSTARD FAMILY short-pod mustard black mustard water-cress
CACTACEAE <i>Opuntia littoralis</i>	CACTUS FAMILY beavertail cactus
CAPRIFOLIACEAE <i>Sambucus mexicana</i>	HONEYSUCKLE FAMILY elderberry
CHENOPODIACEAE <i>Atriplex semibaccata*</i> <i>Atriplex sp.</i> <i>Chenopodium sp.*</i> <i>Salsola iberica*</i>	GOOSEFOOT FAMILY Australian saltbush saltbush goosefoot Russian thistle
CONVOLVULACEAE <i>Cuscuta sp.</i>	MORNING-GLORY FAMILY dodder
EUPHORBIACEAE <i>Ricinus communis*</i>	SPURGE FAMILY castor bean

Table 1

PLANT SPECIES LIST - EXISTING VEGETATION

Scientific Name	Common Name
FABACEAE <i>Lotus</i> sp. <i>Lupinus</i> sp. <i>Melilotus albens</i> *	LEGUME FAMILY clover lupine white clover
FAGACEAE <i>Quercus agrifolia</i> <i>Quercus lobata</i>	OAK FAMILY coast live oak valley oak
GERANIACEAE <i>Erodium</i> sp.*	GERANIUM FAMILY filaree
HYDROPHYLLACEAE <i>Phacelia</i> sp.	WATER-LEAF FAMILY phacelia
MYRTACEAE <i>Eucalyptus</i> sp.*	MYRTLE FAMILY eucalyptus
LAMIACEAE <i>Marrubium vulgare</i> * <i>Salvia apiana</i> <i>Salvia leucophylla</i>	MINT FAMILY horehound white sage purple sage
LAURACEAE <i>Umbellularia californica</i>	LAUREL FAMILY California bay laurel
MALVACEAE <i>Malva parviflora</i> *	MALLOW FAMILY cheeseweed
OLEACEAE <i>Fraxinus dipetala</i>	OLIVE FAMILY flowering ash
POLYGONACEAE <i>Eriogonum fasciculatum</i> <i>Rumex hymenosepalus</i>	BUCKWHEAT FAMILY California buckwheat wild rhubarb
PLANTAGINACEAE <i>Plantago major</i> *	PLANTAIN FAMILY common plantain
RHAMNACEAE <i>Ceanothus crassifolius</i> <i>Rhamnus californica</i>	BUCKTHORN FAMILY California lilac coffeeberry

Table 1

PLANT SPECIES LIST - EXISTING VEGETATION

Scientific Name	Common Name
ROSACEAE <i>Heteromeles arbutifolia</i> <i>Rosa californica</i> <i>Prunus ilicifolia</i>	ROSE FAMILY toyon wild rose holly-leaved cherry
SALICACEAE <i>Populus fremontii</i> <i>Salix lasiolepis</i> <i>Salix sp.</i>	WILLOW FAMILY cottonwood arroyo willow willow
SAXIFRAGACEAE <i>Ribes aureum</i> <i>Ribes speciosum</i>	SAXIFRAGE FAMILY golden currant fuchsia-flowering gooseberry
SOLANACEAE <i>Nicotiana glauca*</i>	NIGHTSHADE FAMILY tree tobacco
AGAVACEAE <i>Yucca whipplei</i>	AGAVE FAMILY our Lord's candle
ARECACEAE <i>Washingtonia filifera</i>	PALM FAMILY fan palm
POACEAE <i>Arundo donax*</i> <i>Bromus sp.*</i> <i>Sorghum halpense*</i>	GRASS FAMILY giant reed brome Johnson grass
TYPHACEAE <i>Typha sp.</i>	CAT-TAIL FAMILY cat-tail
* non-native species	

Table 2

ANIMAL SPECIES LIST - OBSERVED AND REPORTED

Species Observed		Dates Observed	
Scientific Names	Common Names	12-04-92	01-28-93
Reptiles			
<i>Sceloporus occidentalis</i>	Western fence lizard		X
Avians			
<i>Accipiter cooperii</i>	Cooper's hawk		X
<i>Agelaius phoeniceus</i>	red-winged blackbird		X
<i>Anas americana</i>	American wigeon		X
<i>Anas clypeata</i>	Northern shoveler		X
<i>Anas crecca</i>	green-winged teal		X
<i>Anas cyanoptera</i>	cinnamon teal	X	X
<i>Anas discors</i>	blue-winged teal	X	
<i>Anas platyrhynchos</i>	mallard	X	X
<i>Ardea herodias</i>	great blue heron		X
<i>Branta canadensis</i>	Canada goose	X	X
<i>Bucephala albeola</i>	bufflehead	X	X
<i>Buteo jamaicensis</i>	red-tailed hawk		X
<i>Calypte anna</i>	Anna's hummingbird	X	X
<i>Carduelis tristis</i>	American goldfinch	X	
<i>Carpodacus mexicanus</i>	house finch		X
<i>Casmerodius albus</i>	great egret		X
<i>Cathartes aura</i>	turkey vulture		X
<i>Ceryle alcyon</i>	belted kingfisher	X	
<i>Columba livia</i>	rock dove		X
<i>Corvus corax</i>	common crow	X	
<i>Dendroica coronata</i>	yellow-rumped warbler		X
<i>Dendroica palmarum</i>	palm warbler		X
<i>Egretta thula</i>	snowy egret		X
<i>Falco sparverius</i>	American kestrel		X
<i>Fulica americana</i>	American coot	X	X
<i>Geothlypis trichas</i>	common yellow throat		X
<i>Melospiza melodia</i>	song sparrow		X
<i>Mimus polyglottos</i>	mockingbird		X
<i>Nycticorax nycticorax</i>	black-crowned night heron	X	
<i>Oxyura jamaicensis</i>	ruddy duck	X	X
<i>Pipilo crissalis</i>	California towhee		X
<i>Podiceps nigricollis</i>	eared grebe		X
<i>Podilymbus podiceps</i>	pied-billed grebe	X	X
<i>Psaltriparus minimus</i>	bush-tit		X
<i>Sayornis nigricans</i>	black phoebe	X	X
<i>Sturnella neglecta</i>	western meadow lark		X

Table 2

ANIMAL SPECIES LIST - OBSERVED AND REPORTED

Species Observed		Dates Observed	
Scientific Names	Common Names	12-04-92	01-28-93
Avians (Continued)			
<i>Sturnus vulgaris</i>	European starling		X
<i>Toxostoma redivivum</i>	California thrasher		X
<i>Tyrannus verticalis</i>	Western kingbird		X
<i>Zenaidura macroura</i>	mourning dove	X	
<i>Zonotrichia albicollis</i>	white-crowned sparrow		X
Mammals			
Family Canidae	fox scat	X	
Family Leporidae	rabbit sp.	X	X
<i>Thomomys bottae</i>	Valley pocket gopher		X

Scientific Name	Common Name
<i>Agelaius tricolor</i>	tri-colored blackbird
<i>Anas discors</i>	blue-winged teal
<i>Anser albifrons</i>	Greater white-fronted goose
<i>Aythya collaris</i>	ringneck duck
<i>Aythya valisineria</i>	canvasback
<i>Chen caerulescens</i>	snow goose
<i>Chen rossii</i>	Ross' goose
<i>Mergus</i> sp.	merganser sp.
<i>Pandion haliaetus</i>	osprey