APPENDIX A

CHARLES M. SCHULZ SONOMA COUNTY AIRPORT

SONOMA COUNTY, CALIFORNIA

NON-FEDERALLY LISTED SPECIAL STATUS SPECIES

LSA

April 12, 2006

APPENDIX A

OTHER SPECIAL-STATUS SPECIES
(Figures and Tables)

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SPECIAL-STATUS SPECIES NOT FEDERALLY LISTED

This appendix discusses special-status species that are not listed under the federal Endangered Species Act but that need to be addressed under the California Environmental Quality Act (CEQA). Federally-listed species are addressed in the main text of the Biological Assessment. The special-status species addressed in this appendix include species, subspecies, varieties or distinctive populations of plants and animals that are of conservation concern in California. These species, subspecies, varieties or distinctive populations are considered sensitive or species of special concern by the California Department of Fish and Game (CDFG) or are tracked by the California Native Plant Society (CNPS).

The lists of special-status plant and animal species evaluated below (Tables A and B) were compiled based on the experience and knowledge of LSA biologists with these species on the Santa Rosa Plain and a review of the California Natural Diversity Data Base (CNDDB) (CNDDB 2006) and the California Native Plant Society's on-line database (CNPS 2006). These databases were queried for all known records in the following U.S. Geological Survey 7.5 minute quadrangles: Healdsburg, Guerneville, Mark West Springs, Camp Meeker, Sebastopol, and Santa Rosa. However, only those records occurring within the study region (*i.e.*, northern portion of Santa Rosa Plain Conservation Strategy Area [SRPCSA]) were analyzed for this BA, because most of the special-status species that occur in the surrounding foothill and mountain areas do not typically occur within SRPCSA. These two databases were queried for all known records in the following U.S. Geological Survey 7.5 minute quadrangles: Healdsburg, Guerneville, Mark West Springs, Camp Meeker, Sebastopol, and Santa Rosa. These quadrangles are located in the northern portion of the Santa Rosa Plain. Figures A-1 and A-2 show the CNDDB records of special-status plants and animals in the SRPCSA.

Special-status Plant Species

Nine special-status plant species (that are not federally-listed) inhabit the northern Santa Rosa Plan and are considered in the evaluation of the study area. The status and habitat for these species, their potential to occur in the study area, and the closest known occurrences are discussed below in Table A. Four of the species are unlikely to occur in the study area due to lack of suitable habitat; one species was possibly observed in the study area depending on if it is a hybrid or naturalized; and four species potentially occur in the study area but were not observed during focused surveys.

Northern California black walnut (*Juglans californica var. hindsii*), a CNPS List 1B species, potentially occurs in the study area but its genetic status is uncertain (LSA 2005). Walnut trees with the morphological characteristics of var. *hindsii* were observed in the creek corridor in the study area; however, the trees may in fact be a hybrid with the cultivated variety, J. *regia*, with which the native species readily hybridizes (Figure A-3; CNPS 2006). Alternatively, the trees may indeed be the native variety but may have been introduced by humans since the only known occurrences of this species in Sonoma County may have been a result of the spread of nuts traded by Native Americans tribes from the Central Valley (Best et al. 1996).

Four of the species in Table A potentially occur in the study area, but were not observed during focused surveys: dwarf downingia (*Downingia pusilla),* Baker's navarretia *(Navarretia leucocephala* ssp. *bakeri),* marsh microseris *(Microseris paludosa)* and saline clover *(Trifolim depauperatum* var.

hydrophilum). All of these species are CNPS List 1B species, except for dwarf downingia, which is a CNPS List 2 species. There are numerous occurrences of dwarf downingia and Baker's navarretia adjacent to the study area, but there is only one occurrence of marsh microseris that is potentially extirpated and one extirpated occurrence of saline clover in the study region. None of these special-status plant species in Table A were observed during the focused surveys conducted in the study area in 2002 through 2004 (LSA 2005).

Two CNPS List 4 species, which are generally not addressed in CEQA documents, were observed in the study area during focused surveys in 2002 through 2004: Lobb's aquatic buttercup (*Ranunculus lobbii*) and Gardner's yampah (*Perideridia gairdneri* ssp. *gairdneri*) (Figure A-3; LSA 2005). CNPS List 4 plant species are species that are on a watch list because of their limited distribution.

Special-Status Animal (Wildlife) Species

Eighteen special-status wildlife species inhabit the northern Santa Rosa Plan and are considered in the evaluation of the study area. These species are discussed in Table A-2 below.

Table A-1: Special-status Plant Species Known to Occur or Potentially Occurring in the Study Area

Species	Status (Federal/State)	Habitat/Blooming Period	Potential for Occurrence
Arctostaphylos standfordiana ssp. *decumbens* Rincon manzanita	-/-/1B	Chaparral. Highly restricted endemic to red rhyolites in Sonoma County. 75-310 meters. February-April	Unlikely to occur in the study area; no suitable habitat present.
Brodiaea californica var. *leptandra* Narrow-anthered California brodiaea	-/-/1B	Broadleafed upland forest, chaparral, and lower montane coniferous forest. 110-915 meters. May-July	Unlikely to occur in the study area; no suitable habitat present.
Ceanothus confusus Rincon ridge ceanothus	-/-/1B	Closed-cone coniferous forest, chaparral, and cismontane woodland. Known from volcanic or serpentine soils and dry shrubby slopes. 75-1065 meters. February-April	Unlikely to occur in the study area; no suitable habitat present.
Ceanothus foliosus var. *vineatus* Vine Hill ceanothus	-/-/1B	Sandy, acidic soil in chaparral. 45-85 meters. March-May	Unlikely to occur in the study area; no suitable habitat present.
Downingia pusilla dwarf downingia	-/-/2	In several types of vernal pools and vernal lakes within valley and foothill grassland along margins with a variety of associates. 1-485 meters. March-May	Potential to occur in the study area, but not observed during focused surveys in 2002-2004. Closest known CNDDB occurrence is approximately 0.1 mile east of the study area at Airport Business Center Easement; observed in 1993 and reportedly introduced to the site. There are 7 other CNDDB occurrences within 5 miles of the study area and some of them are presumed extant.
Juglans californica var. *hindsii* northern California black walnut	-/-/1B	Deep alluvial soil associated with a creek or stream in riparian forest and riparian woodland. Few extant native stands remain; widely naturalized. 0-395 meters. April-May	This species was observed in the study area along Redwood Creek during 2002-2004 focused surveys, but it could be an introduced hybrid.

Table A-1: Special-status Plant Species Known to Occur or Potentially Occurring in the Study Area

Species	Status (Federal/State)	Habitat/Blooming Period	Potential for Occurrence
Microseris paludosa marsh microseris	-/-/1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. 5-300 meters. April-June	Potential to occur in the study area, but not observed during focused surveys in 2002-2004. Closest known CNDDB occurrence is approximately 3.8 miles north of the study near old Redwood Highway; last observed in 1949. There are no other CNDDB occurrences in the study vicinity.
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	-/-/1B	Vernal pools and swales in adobe or alkaline soils within cismontane woodland, meadows and seeps, valley and foothill grassland, and lower montane coniferous forest. 5-950 meters. April-July	Potential to occur in the study area, but not observed during focused surveys in 2002-2004. Closest known CNDDB occurrence is approximately 0.3 mile northeast of the study area near Sanders Road; last observed in 1993. There are 6 other CNDDB occurrences within 5 miles of the study area and some of them are presumed extant.
Trifolim depauperatum var. *hydrophilum* saline clover	-/-/1B	Mesic, alkaline sites in vernal pools and marshes within valley and foothill grassland. 0-300 meters. April-June	Potential to occur in the study area but not observed during focused surveys in 2002-2004. Closest known CNDDB occurrence is approximately 4.7 miles southeast of the study area; this occurrence is extirpated. There are no other CNDDB occurrences in the study vicinity.

Federal:
FE = Federally endangered
FT = Federally threatened
FPE = Federally proposed endangered
FPT = Federally proposed threatened
FC = Federal candidate for listing as threatened or endangered
CH = Designated critical habitat
CHP = Proposed Critical Habitat
D = Delisted

State:
SR = State rare
SE = State endangered
ST = State threatened
CNPS (California Native Plant Society) List:
1A = Presumed extinct in California
1B = Rare, threatened or endangered in California and elsewhere.
2 = Rare, threatened or endangered in California but common elsewhere.
3 = More information is needed for assignment to a list (review list).
4 = Limited distribution (watch list).

Table A-2: Special-status Animal Species Known to Occur or Potentially Occurring in the Study Area

Species	Status*	Habitat	Potential for Occurrence
California red-legged frog *Rana aurora draytonii*	CSC#	Deep pools (about 25 inches) along slow flowing sections of creeks ponds, and marshes.	Very unlikely. There are no records of this frog from the Walker and Mark West Creek watersheds.
Pacific pond turtle *Actinemys marmorata*	CSC	Streams with deep pools, ponds, marshes, with basking sites and suitable upland areas outside the flood zone with friable soils for egg laying.	Known to occur in the local creeks on the Santa Rosa Plain and surrounding foothills. Expected in Mark West Creek where deep pools are present, but viable populations are not expected to be present in Redwood or Airport Creeks due to their lack of deep pools.
Great egret *Ardea alba*	CDG sensitive (rookery)	Forages around ponds, along creeks, and in wet pastures and grasslands for fish, rodents and other prey. Nests is rookeries in secluded groves of trees.	Rookeries are present along the Laguna de Santa Rosa to the south, but none are known to be present within the study area. This species forages in the grassland within the study area.
Great blue heron *Ardea herodias*	CDG sensitive (rookery)	Forages around ponds, along creeks, and in wet pastures and grasslands for fish, rodents and other prey. Nests is rookeries in secluded groves of trees.	Rookeries are present along the Laguna de Santa Rosa to the south, but none are known to be present within the study area. This species forages in the grassland within the study area.
Cooper's Hawk *Accipiter cooperi*	CSC (nesting)	Woodland habitats, often seen in wooded urban areas during winter and may also nest in well wooded urban areas.	Expected to occur as a transient and winter visitor, may nest within riparian habitat or wooded urban areas within the study area.
Sharp-shinned Hawk *Accipiter striatus*	CSC (nesting)	Woodland habitats, often seen in well wooded suburban areas during the winter.	Expected to occur as a transient and winter visitor, known to nest in local foothills.
Golden eagle *Aquila chrysaetos*	CSC (nesting and wintering) DFG: FP	Mountains, foothills, and extensive tracks of wildlands with abundant prey, such as jackrabbits and ground squirrels. Prefers hilly country.	Uncommon resident in Sonoma County, mainly in foothills and mountains. Occasionally observed soaring over the Santa Rosa Plain, but not expected to be a regular visitor to the study area.

Table A-2: Special-status Animal Species Known to Occur or Potentially Occurring in the Study Area

Species	Status*	Habitat	Potential for Occurrence
Ferruginous hawk *Buteo regalis*	CSC (wintering	During winter this large hawk winters in large tracks of open grassland and rangeland. They favor areas with good populations of ground squirrels, an important prey item.	This species, an uncommon winter visitor to Sonoma County, is occasionally seen on the Santa Rosa Plain and may occur from time to time in the open habitats within the study area, but is not expected to be a regular winter visitor.
Northern harrier	CSC (nesting)	Forages over open habitats, such as grasslands, pastures, marshes and fields with good populations of voles and other small rodents. Nests on the ground in similar habitat.	This species is a fairly common resident in Sonoma County with an increase in numbers as migrant arrive in winter visitor. Potential nesting habitat is present within the study area.
White-tailed kite	DFG: FP	Forages over open habitats, such as grasslands, pastures, and fields with good populations of voles and other small rodents. Nests in isolated trees and along the edges or woodlands near open areas.	This raptor is resident in the study area and is likely to nest in isolated willows stands or in the riparian woodland along Redwood and Airport Creeks.
Burrowing owl *Athene cunicularia*	CSC	Open country, nests and roosts in ground squirrel burrows or other natural or artificial cover	Occurs occasionally in the study area as a rare winter visitor or migrant.
Loggerhead shrike *Lanius ludovicianus*	CSC (nesting)	Open habitat, such as grasslands and ranchlands with scattered trees or shrubs for nesting and fences, or other elevated perch sites.	This species has declined markedly in Sonoma County. The study area provides good nesting and foraging habitat for shrikes and there is a potential for this species to nest here.
Yellow warbler	CSC (nesting)	Nests in extensive willow riparian woodlands.	Unlikely to occur as a nesting species due to the small extent of willow riparian woodland within the study area
Yellow-breasted chat	CSC (nesting)	Nests in extensive willow riparian woodlands with dense understory.	Unlikely to occur as a nesting species due to the small extent of willow riparian woodland within the study area.
Tri-colored blackbird *Agelaius tricolor*	CSC (nesting colony)	Nests in large colonies in extensive freshwater marshes, has nested in large patches of thistle.	Unlikely to occur as a nesting species due to the small extent of freshwater marsh within the study area.

Table A-2: Special-status Animal Species Known to Occur or Potentially Occurring in the Study Area

Species	Status*	Habitat	Potential for Occurrence
Pallid bat *Antrozous pallidus*	CSC	Roosts in crevices in rock outcrops, in the expansion joints under bridges and occasionally in old buildings; forages on large terrestrial insects in open habitats.	Could forage within the study area, but suitable roosting habitat may be limited.
Townsend's big-eared bat *Corynorhinus townsendii*	CSC	Roosts in old buildings, mines, and caves; forages over various habitat types.	Could forage within the study area, but suitable roosting habitat may be limited. The old bunker located in the western portion of the study area may have some roosting potential for this species.
American Badger *Taxidea taxus*	CSC	Open country, ranch lands, pasture, and open woodlands with friable soils and abundant small mammal populations	Could potentially occur in the open areas of the study area, but this species is generally rare on the Santa Rosa Plan.

*

CSC = California Species of Special Concern

DFG FP = Department of Fish and Game Fully Protected

Populations of the California red-legged frog in the Russian River watershed and to the north are not listed under the endangered species act as are populations to the south of this area.

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LSA Associates, Inc. (LSA). 2005. Botanical Surveys, Sonoma County Airport 2002-2004, Sonoma County, California. Prepared for Sonoma County Department of Transportation and Public Works. January 20, 2005.

The boundaries of the various occurrences shown on this map do not depict the actual geographic limits of where special status plants or animals are currently found. Rather, circles show an approximate radius of land around one or more historic occurrences, within which the occurrences may be currently found. Other shapes depict an approximate zone within which one or more populations of plants were historically mapped. In some polygons, the historically mapped populations may no longer be extant, or the actual extent of any existing population may be significantly smaller, as is the case withlisted plant species on the Sonoma County Airport site.

Windsor Creek
Pool Creek
U.S 101
Mark West Creek
Alton Lane
Mitigation Site
Santa Rosa Creek
Laguna de Santa Rosa
SANTA ROSA

LSA

N

0 0.5 1
MILES

Project Area

Santa Rosa Plain Conservation Strategy Area (SRPCSA)

CNDDB Occurrences *

Baker's Navarretia
(Navarretia leucocephala ssp. bakeri)

Dwarf Downingia
(Downingia pusilla)

Marsh Microseris
(Microseris paludosa)

Narrow-anthered California Brodiaea
(Brodiaea californica var. leptandra)

Saline Clover
(Trifolium depauperatum var. hydrophilum)

FIGURE A-1

Charles M. Schulz
Sonoma County Airport
Biological Assessment

CNDDB Occurrences of Non-listed Special-status Plants in the Project Region

* The occurrences depicted from the CNDDB are 1980 or later.

I:\MHN530\GIS\Maps\FigureA1-CNDDB_Plants_post1980.mxd (04/06/2006)

The boundaries of the various occurrences shown on this map do not depict the actual geographic limits of where special status plants or animals are currently found. Rather, circles show an approximate radius of land around one or more historic occurrences, within which the occurrences may be currently found. Other shapes depict an approximate zone within which one or more populations of plants were historically mapped. In some polygons, the historically mapped populations may no longer be extant, or the actual extent of any existing population may be significantly smaller, as is the case withlisted plant species on the Sonoma County Airport site.

Windsor Creek
Pool Creek
U.S 101
Mark West Creek
Alton Lane Mitigation Site
Santa Rosa Creek
Laguna de Santa Rosa

LSA

N

0 0.5 1
MILES

- Project Area
- Santa Rosa Plain Conservation Strategy Area (SRPCSA)

CNDDB Occurrences *

- American Badger (*Taxidea taxus*)
- Blennosperma Andrenid Bee (*Andrena blennospermatis*)
- Californian Linderiella (*Linderiella occidentalis*)
- Northwestern Pond Turtle (*Emys (=Clemmys) marmorata marmorata*)
- White Tailed Kite (*Elanus leucurus*)

FIGURE A-2

Charles M. Schulz
Sonoma County Airport
Biological Assessment

CNDDB Occurrences of Non-listed Special-status Animals in the Project Region

* The occurrences depicted from the CNDDB are 1980 or later.

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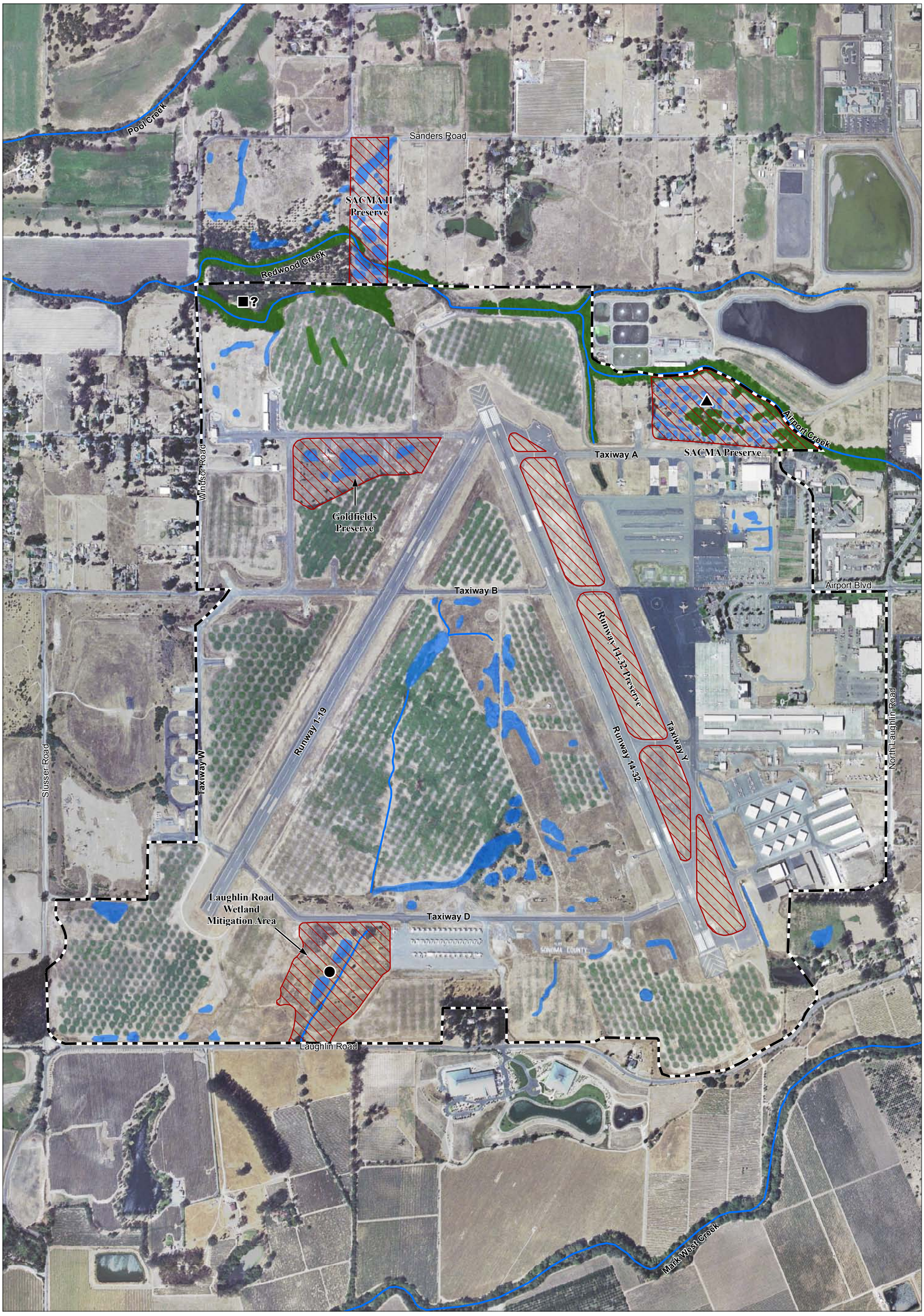

LSA

■? Northern California Black Walnut (*Juglans californica* var. *hindsii*)

● Lobb's Aquatic Buttercup (*Ranunculus lobbii*)

▲ Gardner's Yampah (*Perideridia gairdneri* ssp. *gairdneri*)

Project Area

Preserves

Seasonal Wetlands (Including Vernal Pools and Swales)

Riparian Woodland / Valley Oaks

N

0 200 400 800

FEET

FIGURE A-3

Charles M. Schulz Sonoma County Airport Biological Assessment

Special-status Plants in the Project Area

Source: Aerial Imagery from Sonoma County (2003)

Note: Special-status plant occurrences are based on 2002-2004 focused surveys and annual monitoring.

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