

**APPENDIX XI**  
**Watershed Summaries**

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## **WATERSHED SUMMARY**

Watershed Name: Camp Far West Reservoir

Watershed Number : 1

Survey Date(s): 3/12/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Camp Far West

Elevation Range (feet): Min: 135, Max: 869

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types):**

- <10%: Blue Oak Woodland, Annual Grassland, Oak Woodland-Savanna, Lacustrine
- Large contiguous Blue Oak Woodland stands in the northwest and southeast portions of watershed
- Annual Grasslands have scattered blue oak trees, some areas mapped as Oak Woodland-Savanna
- High proportion of native forbs noted in some Annual Grasslands
- Blue Oak Woodland has understory of poison-oak with some buckbrush
- Narrow Foothill Riparian Woodland along Fenton Ravine is black willow/red willow mix, with Himalayan black-berry shrub cover

#### **Small-Patch Ecosystems**

- Landscape and Golf Course Ponds (less than 1 acre)
- Serpentine - small area mapped at edge of Camp Far West Reservoir east of Fenton Ravine in section 36 - no access to this area

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Slopes above upper end of Camp Far West Reservoir; Fenton Ravine is the main tributary; slopes are very steep at the southeast end

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Unknown land ownership. Assumed to be mostly private, no access. May be some public lands near Camp Far West Reservoir.

#### **Land use history and types/levels of impacts**

- Northwest and southeast ends of watershed are undisturbed other than grazing, with large areas of Foothill Hardwood Woodland; south end has been somewhat fragmented by Rural Residential development

#### **Other significant observations**

- Fenton Ravine appeared to support a good riparian stand

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes.

If Yes, how? What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Made some changes to Blue Oak Woodland/Lacustrine based on this field visit - probably an open polygon when mapped

## SPECIAL-STATUS SPECIES

Species observed

- Potential foothill yellow-legged frog at Fenton Ravine -unconfirmed.

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Camp Far West Reservoir is Lacustrine habitat for raptors including Bald Eagle. Good oak woodland and foothill hardwood habitats for woodland-associated species. Annual Grassland, Oak Woodland-Savanna, Foothill Hardwood

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Assumed to be present, however, river is dammed below this occurrence.

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - Moderate to High in swales and riparian areas
- Yellow star-thistle, Klamath weed, medusa head - Low level of infestation present mostly at roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Access is limited in this watershed
- American beaver, wild turkey, ring-necked pheasant

## **WATERSHED SUMMARY**

Watershed Name: Bear River

Watershed Number: 2

Survey Date(s): 3/12/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Wheatland, Camp Far West, Sheridan, Lincoln

Elevation Range (feet): Min: 73, Max: 522

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Orchards
- Mitigation area lands located in southwest corner of watershed
- Bear River runs length of watershed, has mature Foothill Riparian on valley floor with large valley oaks. Orchards planted on floodplain and terraces in western central northern portion of valley
- Small patches of Vernal Pools on fragmented area around Sheridan (unmapped)
- Eastern end of watershed near Camp Far West Reservoir mixture of Annual Grassland, Blue Oak Woodland, Oak Woodland-Savanna
- Blue Oak Woodland on east end of watershed is dominated by blue oaks with scattered interior live oaks, buckeye and foothill pine. Blue Oak Woodland attribute is appropriate
- Several large artificial lakes along Camp Far West Road

### **Small-Patch Ecosystems**

- Stocks Ponds (less than 1 acre)

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Bear River is a large feature over length of watershed

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- 99% private

### **Land use history and types/levels of impacts**

- Annual Grasslands are mostly used for grazing; large area of orchards and rice in floodplain

### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, how? What has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

## SPECIAL-STATUS SPECIES

Species observed

- None. Great blue heron nests (six counted) in large trees in Bear River Riparian Woodland in northeast corner of watershed; several raptor nests observed during field survey

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Annual Grassland, Orchards, Rice, Blue Oak Woodland

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Valley elderberry longhorn beetle	Yes	No	Occurrence is within mitigation lands, no access.
Bank swallow	No	No	No nesting habitat appears to present at this location
Legenere	Yes	No	Could not access, lake is present on photo

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Klamath weed, medusa head, yellow star-thistle - Low on some roadsides
- High infestation of giant reed (Arundo) on the Bear River, near Highway 65.
- Other weeds are mostly present on roadsides (Level of infestation = low)

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Bald Rock Mountain

Watershed Number: 3

Survey Date(s): 3/29/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Wolf, Gold Hill

Elevation Range (feet): Min: 292, Max: 1,696

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Mixed Oak Woodland, Oak-Foothill Pine Woodland, Blue Oak Woodland
- Approximately four fifths of this watershed is tree-dominated habitats; very large contiguous areas of oak woodland on foothills
- Blue Oak Woodland has some interior live oak and pine
- Auburn Country Club/Golf Course has a series of small lakes with associated Fresh Emergent Wetland vegetation
- Small areas of grazed Annual Grassland in southeast corner

#### **Small-Patch Ecosystems**

- Many landscape and stock ponds in southeast portion of watershed
- Two very small areas of Serpentine Soils mapped, one along Bear River not accessible; the other visible on hillside above Golf Course as small barren rock outcrop, no access

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Bear River runs along northern boundary - hills and ridge slopes are forested

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private - access extremely limited. Main access is at Golf Course and Bell Road to east; limited access along Garden Bar Road in west
- Most of watershed is extensive areas of woodland; some small-scale grazing in southeast corner; Golf Course

#### **Land use history and types/levels of impacts**

- Extensive wooded areas with few roads; no timber harvest seen on air photographs; Rural residential - low density, with some new buildings (most inaccessible). Golf Course has created a series of large ponds with some wetland vegetation

#### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- No access to majority of watershed

## SPECIAL-STATUS SPECIES

Species observed

- None

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Oak-Foothill Pine, Foothill Hardwood. Ponds at south end of Bell Road are potential nesting habitat for black rail. Serpentine outcrop above GC - potential prairie falcon nesting habitat on exposed rocky cliffs

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

- None

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle: Trace to Moderate on some roadsides and some fields along Bell Road.

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None



## **WATERSHED SUMMARY**

Watershed Name: Upper Orr Creek  
Watershed Number: 4  
Survey Date(s): 3/29/03, 4/03/03, and 4/4/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Auburn, small portions of Wolf, Lake Combie, Gold Hill  
Elevation Range (feet): Min: 948, Max: 2,113

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Rural-Residential Forested, Mixed Oak Woodland, Annual Grassland
- Almost one third of watershed is Rural-Residential Forested, oak-dominated in central portion of watershed, and Ponderosa pine-dominated in north and east
- Interior live oak is prominent component of the Mixed Oak Woodlands; black oak can be a major component at higher elevations in north and east
- Ponderosa Pine Forest is common patchily distributed on ridges and north-facing slopes at higher elevations to east and north; Ponderosa pine is sparse overstory component of Mixed Oak woodlands at higher elevation
- Rural-Residential Forested generally has high and continuous canopy cover, with few gaps
- Foothill Riparian Woodland is alder-dominated, with Himalayan blackberry the dominant understory cover
- Manzanita becomes common in understory at higher elevations
- Annual Grasslands fields along Highway 49 have frequent rush-dominated seasonal wetlands
- Mature valley oaks occur along creek and valley floor in Rural-Residential area on Winding Road (sections 8 & 9)
- Foothill Chaparral was mapped - is dense buckbrush/manzanita and small live oak trees with scattered cover of foothill pine in overstory

#### **Small-Patch Ecosystems**

- Very few landscape ponds in Rural-Residential areas
- Serpentine mapped in two areas - along Bear River to north (not accessible); and along southern edge of watershed - some patches here relatively intact, adjacent to recent Rural-Residential development, mapped as Savanna with scattered foothill pine and buckbrush

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Bear River forms northern boundary of watershed (& County), hilly in east with steep slopes, flatter low-lying fields to west with oak on ridges

## LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS

### Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)

- Private. Rural-Residential Forested low density, densely roaded

### Land use history and types/levels of impacts

- No evidence of fire. Some patches of dense young ponderosa pine regeneration in and adjacent to Rural-Residential areas

### Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added some seasonal wetlands in Annual Grassland fields. More ponderosa pine than was mapped (was Oak-Foothill Pine)

## SPECIAL-STATUS SPECIES

### Species observed

- Cooper's hawk, red-shouldered hawk

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Rural-Residential, Oak-Foothill Pine, Foothill Hardwood, Valley Foothill Riparian. Areas suitable for nesting raptors such as white-tailed kite and Cooper's hawk.

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

- None

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High level of infestation: dominant in many Riparian Woodland areas
- Yellow star-thistle - Low to High on some roadsides in west portion of watershed
- Medusa-head - Low on Florence Lane/Highway 49 area
- Periwinkle - High around Halsey Forebay

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Slopes along north of watershed not accessible; NW corner - also no access
- Golf course has large ponds, construction of large new houses
- Cooper's hawk observed in open oak woodland

## **WATERSHED SUMMARY**

Watershed Name: Upper Yankee Slough

Watershed Number : 5

Survey Date(s): 2/28/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Sheridan

Elevation Range (feet): Min: 110, Max: 525

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Vernal Pool Complex
- Central western Annual Grassland contains a large Vernal Pool complex that is relatively undisturbed - some grazing
- Himalayan blackberry is dominant along major drainageways
- Area of Annual Grassland / Oak Woodland-Savanna on hillsides in northeast portion of watershed - blue oak is the dominant oak species, no regeneration noted
- Sloughs and creeks that run northeast to southwest have small amounts of associated Seasonal Wetlands, Fresh Emergent Wetlands and Foothill Riparian - willow dominated with some cottonwood
- Large Seasonal/Fresh Emergent Wetlands in southwest corner are not accessible

#### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre) within Rural Residential, some are fairly large (approx. 1/2 acre), but all are associated with rural residential development

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Extends from rolling hills in the north to relatively level terrain in the south. The southern portion includes areas of mima-mound topography; several small creeks and sloughs

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Mostly if not all privately owned. Rural residential along main roads. Extensive cattle grazing, some sheep, and numerous horse pastures

#### **Land use history and types/levels of impacts**

- About 5 main roads within watershed, with large, open tracts of land in between. Residential development is concentrated along the roads, but is sparse except on Thousand Oaks Road

#### **Other significant observations**

- Several 0.5-1-acre eucalyptus groves

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how? What has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Changed Annual Grassland and Unidentified Agriculture mapping at several areas to indicate Irrigated Pasture. Also added Fresh Emergent Wetland polygon wetland not identifiable on photo (at Karchner and Thousand Oaks Roads). Changed attribution for several types (Unidentified Cropland to Annual Grassland, Unidentified Cropland to Pasture - Irrigated, Pasture to Annual Grassland, Unidentified Cropland to Eucalyptus) based on field observations

## SPECIAL-STATUS SPECIES

Species observed

- None

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Vernal Pools for vernal pool specialists. Valley Foothill Riparian for yellow-breasted chat and yellow warbler, among others. Annual Grassland for foraging and nesting raptors. Rural Residential, Oak-Woodland Savannah, Blue Oak Woodland

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Burrowing owl	Yes	No	Site not accessible, habitat appears to be present and undisturbed on air photograph

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High: dense in some riparian areas, swales, and ditches
- Weeping willows along stream crossing Thousand Oaks Road, 0.5 miles north of Riosa Road: High level of infestation - mature trees along several hundred feet of stream, but do not appear to be reproducing

## ADDITIONAL COMMENTS

**Add any relevant observations not covered above that describe features unique to this watershed**

- Emergent wetland vegetation present at SE corner of Karchner Road to Thousand Oaks Road. Approximately 1 acre in extent. Signature not apparent on aerial photo
- Smaller drainages within grazed annual grasslands are usually incised channels
- Red-tailed hawk, American kestrel, unidentified Accipiter, California quail observed

## **WATERSHED SUMMARY**

Watershed Name: Kilaga Springs

Watershed Number : 6

Survey Date(s): 3/12/03 and 3/14/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Camp Far West, Gold Hill

Elevation Range (feet): Min: 146, Max: 928

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Oak Woodland-Savanna
- Large contiguous areas of Annual Grassland in west of watershed, west of McCourtney Road; creek runs through this area with associated Seasonal and Fresh Emergent Wetlands mapped
- South and east portion has patchy mosaic of Blue Oak Woodland, Oak Woodland-Savanna, and Foothill Oak-Pine, with Annual Grasslands
- Coon Creek and several of its tributaries have bands of Riparian Woodland mapped along them, often fragmented and narrow
- Riparian Woodland is variable in species composition, but valley oak is frequent to dominant component; Coon Creek at Gladding Road has valley oak and white alder, with Himalayan blackberry and California grape; Upper Coon Creek at McCourtney Road is valley oak dominated with black willow and dense Himalayan blackberry
- Rural Residential areas in northeast portion have numerous small stringers of Riparian Woodland and scrub; Himalayan blackberry is generally dominant

#### **Small-Patch Ecosystems**

- Landscape and Stock Ponds

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Open rolling Annual Grassland in west, low wooded foothills and ridge in east, Coon Creek runs northeast to southwest

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private. Farms, rural-residential. Reasonable access on paved county roads.

#### **Land use history and types/levels of impacts**

- Irrigated Pasture in northeast portion, grazed Blue Oak Woodland and Oak Woodland-Savanna; large orchard has been planted relatively recently on Annual Grassland south of Riosa Road

**Other significant observations**

- None

**PROBLEMS WITH INTERPRETATION**

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, how? What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Orchard added - was not clear signature on air photograph

**SPECIAL-STATUS SPECIES**

**Species observed**

- White-tailed kite observed

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Annual Grassland, Oak Woodland-Savanna

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes		Several occurrences mapped along Coon Creek; water turbid on day of survey after overnight rain.

**INVASIVE NON-NATIVE SPECIES**

**Species observed + Level of Infestation (Trace/Low/Moderate/High)**

- Himalayan blackberry -High level: abundant to dominant in riparian areas along Coon Creek and Upper Coon Creek, as well as in most smaller riparian areas and swales in foothill areas
- Giant reed (Arundo) - 2 clumps seen on Shamrock Lane
- Yellow star-thistle, medusa-head - Trace on roadsides



## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Some broad swales and low-lying areas in pastures have dense rushes
- Valley Foothill Riparian - some areas have been burnt on North Kilaga Springs Road - possibly to control Himalayan blackberry
- American beaver, in Coon Creek and small stream in north
- Ring-necked pheasant and wild turkey seen

## **WATERSHED SUMMARY**

Watershed Name: Alderman Creek

Watershed Number: 7

Survey Date(s): 3/13/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill, Lincoln

Elevation Range (feet): Min: 213, Max: 1,250

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Oak-Foothill Pine Woodland, Blue Oak Woodland, Annual Grassland
- Most of this watershed is tree-dominated habitats; very large contiguous areas of woodland on foothills
- Blue Oak Woodland has some interior live oak and pine
- Foothill Riparian Woodland associated with Coon Creek - continuous and relatively undisturbed cover along creek, mixed canopy trees: white alder, valley oak, interior live oak, and willows, with dense Himalayan blackberry understory
- Series of lakes have been constructed in creek in running through north of watershed

#### **Small-Patch Ecosystems**

- Many landscape and stock ponds in southeast portion of watershed

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Foothills with contiguous Foothill hardwood Woodland, much of it Blue Oak woodland

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private - access extremely limited.
- Mostly extensive areas of woodland; some small-scale grazing in northwest corner

#### **Land use history and types/levels of impacts**

- Extensive wooded areas with few roads; no timber harvest seen on air photographs

#### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- No access to majority of watershed

## SPECIAL-STATUS SPECIES

Species observed

- None

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Oak-Foothill Pine, Foothill Hardwood. Ponds along creek in north of watershed are potential nesting habitat for Tricolored blackbird and black rail.

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Two occurrences mapped in Coon Creek – creek is intact with continuous Riparian Woodland cover

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - dense in some riparian areas
- Yellow star-thistle - Trace to Moderate on some roadsides
- Poison hemlock noted adjacent to Coon Creek at sample point 12-1

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Shed: Lower Yankee Slough

Watershed Number : 8

Survey Date(s): 2/27/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Sheridan

Elevation Range (feet): Min: 70, Max: 212

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Rice, Vernal Pool Complex
- Relatively large amount of constructed wetland habitats (most mapped as Fresh Emergent Wetland) in mitigation area in northwest corner of watershed
- Large area of Vernal Pool Complex in eastern portion of watershed, east of Highway 65
- Rice fields are located west of Highway 65
- Recently created Vernal Pools (within last year or two) are mapped as Unidentified Cropland (along Riosa Road)

#### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre)

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat watershed; bisected by Highway 65 running north-south; includes town of Sheridan and some Rural Residential areas to northeast; otherwise large areas of Annual Grassland, Vernal Pools, and Rice; only unnamed ephemeral creeks in this watershed

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Almost all private ownership

#### **Land use history and types/levels of impacts**

- Agricultural use in west end of watershed, mostly levelled for rice cultivation; Annual Grasslands/Vernal Pool Complex used for grazing in east of watershed have intact topography and hydrology

#### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how? What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Made some changes from Unidentifeid Cropland to Rice based on field observations

## SPECIAL-STATUS SPECIES

Species observed

- Northern harrier, rough-legged hawk, loggerhead shrike, tricolored blackbird, white-tailed kite, burrowing owl

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Annual Grassland, Rice, Unidentified Cropland, Seasonal Wetland

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Dwarf downingia	Yes	No	Habitat appears intact on aerial photo
Great blue heron rookery	Yes	No	No access to site/aerial photograph shows habitat present
Western spadefoot	Yes	No	No access to site/aerial photograph shows habitat present

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Medusa head, yellow star-thistle, Klamath weed - Low to Moderate on some roadsides, field edges

## ADDITONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Orr Creek

Watershed Number: 9

Survey Date(s): 4/9/03 and 4/10/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill, Auburn

Elevation Range (feet): Min: 518, Max: 1,611

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- > 10%: Oak-Foothill Pine, Blue Oak Woodland, Mixed Oak Woodland, Oak-Foothill Pine
- Approximately one third of the watershed is Oak-Foothill Pine Woodland, covering large contiguous areas of Big Hill in northwest
- Also large contiguous area of Oak-Foothill Pine Woodland and along Deadman Canyon on southwest edge of watershed
- Some areas of Blue Oak Woodland and blue oak dominated Savanna
- Riparian Woodland along Coon Creek and Dry Creek is relatively continuous, narrow; dominated by cottonwood and willows

### **Small-Patch Ecosystems**

- Some Stock Ponds (less than 1 acre) in grazed areas
- Serpentine - small area mapped in extreme east of watershed north of Auburn Airport - surrounded by Urban/Suburban, dominated by blue oak

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- South slopes of Big Hill, Orr Creek and Dry Creek join to form Coon Creek in watershed; Deadman Canyon runs SE to NW along southwest of watershed; rolling foothills and west edge of Auburn

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, urban

**Land use history and types/levels of impacts**

- Rural-Residential and Rural-Residential Forested, large area of contiguous forest on Big Hill with some private tracks

**Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

## SPECIAL-STATUS SPECIES

Species observed

- Red-shouldered hawk

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Blue Oak Woodland, Oak-Foothill Pine, Urban/Suburban. Large area of oak-dominated woodland in Northwest and along Southwest edge of watershed provides suitable nesting habitat for- Cooper's hawk and white-tailed kite. Major creeks - western pond turtle (Orr and Dry Creek seen at Bell Road)

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Dry Creek and Coon Creek - several CNDDDB records

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Tree-of-heaven - some Moderate on roadsides around Auburn
- Himalayan blackberry - High level: dominant in many Riparian Woodlands
- Periwinkle - High in some riparian areas
- Yellow star-thistle - Trace to Moderate along roadsides/ruderal/disturbed fields

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Rock Creek

Watershed Number: 10

Survey Date(s): 4/02/03 and 4/03/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Auburn

Elevation Range (feet): Min: 1,178, Max: 2,224

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- Rural Residential Forested, Urban/Suburban, Foothill Hardwood Woodland
- Rural-Residential Forested is Ponderosa pine/black oak or mixed oak; some is serpentine substrate with foothill pine
- Mixed Oak Woodland generally has open understory with annual grasses/herb cover; some Mixed Oak has scattered Ponderosa pine overstory; black oak is a frequent associate in northeast portion of watershed
- East end of Dry Creek has wide areas of Riparian Woodland with mixed canopy including alder, willows, and valley oak, and dense Himalayan blackberry understory
- Ponderosa Pine forest in northeast of watershed occurs in patches mixed with Foothill Oak-Pine
- Large patch of Foothill Oak-Pine in center of watershed east of Auburn

### **Small-Patch Ecosystems**

- Few Landscape Ponds
- Serpentine soils mapped in northwest of watershed are mostly Rural/Residential, much of it relatively recent development

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Northeast part of Auburn, Dry creek bisects flowing East West

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Rural-Residential Forested - low density house developments in variety of woodland types, no agriculture, a few orchards; I80 runs along southeast edge of watershed and Highway 49 on west side

### **Land use history and types/levels of impacts**

- Much of Rural/Residential development is relatively recent, although not much new/current building seen

### **Other significant observations**

- None



## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- A few leaking polygons were corrected

## SPECIAL-STATUS SPECIES

### Species observed

- Red-shouldered hawk; Cooper's hawk; osprey; great-blue heron seen carrying nesting material - no rookery recorded in CNDDDB in this area

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Rural Residential Forested, Urban/Suburban, Foothill Hardwood, Oak-Foothill Pine. Cooper's hawk in open oak woodland, long-eared owl in open younger ponderosa pine. Yellow warbler and yellow-breasted chat in denser riparian. Western pond turtle potential in Dry Creek at eastern end

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Several CNDDDB records along Dry Creek – Creek has several dams on it

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- French broom - Moderate in Rural-Residential Forest in NE corner and along Bowman Road
- Himalayan blackberry - High level: dominant in many Riparian Woodlands
- Periwinkle - High: abundant and dense in riparian and moist woodland
- Yellow star-thistle - Low to High on some roadsides and fields
- Fennel - Trace to Low on some roadsides
- Medusa head - Trace along some roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Rural-Residential Forested often has dense tree canopy cover
- Rock Creek Lake - fenced, hard to see well
- Large area of Oak-Foothill Pine in center of watershed
- Lake on Dry Creek is private, hard to see. An osprey was observed here 04-02-03

## **WATERSHED SUMMARY**

Watershed Name: Lower Doty Ravine

Watershed Number : 11

Survey Date(s): 3/26/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Gold Hill

Elevation Range (feet): Min: 105, Max: 807

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- > 10%: Annual Grassland, Irrigated Pasture
- Doty Creek Valley Foothill Riparian is dominated by black willow and Fremont cottonwood
- Some extensive areas of Annual Grassland fields, often with rush-dominated seasonal swales
- Large cattle farm in west has extensive fields of improved grass/Irrigated Pasture (ryegrass, white clover). Some are irrigated, some have been levelled, maybe for flood irrigation.
- Large area of Riparian Woodland in center (sections 22, 26, 27) is dominated by black willow and Fremont cottonwood - this area is shown as placer tailings on USGS topographic map
- Area of Foothill Oak-Pine and Blue Oak Woodland in east end of watershed

#### **Small-Patch Ecosystems**

- Many small ponds, often with much cattail

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Low Foothills and valley floor; Doty Ravine is major creek; cattle pasture in west, rolling Annual Grassland and Foothill Hardwood patches in east

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, cattle farming, Rural-Residential with horses, goats, and sheep.

#### **Land use history and types/levels of impacts**

- Some large areas of intensive cattle grazing on floodplain of Doty Creek - fields plowed and levelled for flood irrigation
- Old placer mining on McCourtney Road, now willow-dominated riparian woodland patch.

#### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how? What has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added some Seasonal Wetlands

## SPECIAL-STATUS SPECIES

### Species observed

- Tricolored blackbird, loggerhead shrike, red-shouldered hawk, northern harrier, white-tailed kite, and Swainson's hawk in pasture area in west of watershed; also great egret and great blue heron rookery in riparian area adjacent to pastures in west of watershed
- Suitable habitats for covered special-status species (Y/N, List Habitats)
- Yes. Irrigated Pasture, Oak-Woodland Savanna, and Valley Foothill Riparian. Some extensive Annual Grassland and Irrigated Pasture fields, often with seasonal swales, provide good foraging areas for raptors such as Swainson's hawk. Doty Creek for fish habitat.

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Tricolored blackbird	Probably	No	No access, but with binoculars can see small cattail patch and several patches of Himalayan blackberry
Great blue heron	Yes	Yes	No access. Large trees visible in Riparian Woodland, great egret and great blue heron seen perched in trees viewed from Manzanita Road. Presumed breeding colony extant.
Chinook salmon	Yes	No	Doty Creek

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High: dense patches in swales and riparian areas around Doty Creek floodplain
- Medusa-head - Trace to Moderate on few roadsides
- Yellow star-thistle - High, few dense patches in fields in Rural-Residential areas
- Klamath weed - Trace at sample point 11-5

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Upper Doty Ravine

Watershed Number: 12

Survey Date(s): 3/27/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill

Elevation Range (feet): Min: 243, Max: 1,089

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Annual Grassland, Mixed Oak Woodland, Oak-Woodland-Savanna, Rural Residential Forested
- Interior live oak is important component of much of the Mixed Oak Woodland
- Foothill Riparian Woodland - wide band along Doty Ravine where Garden Bar Road crosses; some small pockets of valley oak in Riparian
- Himalayan blackberry frequently dominant in Riparian Woodlands and moist areas in Annual Grassland and fields in Rural Residential
- Annual Grassland is fragmented, sometimes heavily grazed by variety of livestock; some irrigated fields
- Many small seasonal wetlands within Annual Grasslands and fields - dominated by rushes
- Large area of Annual Grassland and Oak Woodland-Savanna on hill/ridge in northwestern portion of watershed along Garden Bar Rd
- Large area of Mixed Oak Woodland and Oak-Foothill Pine woodland on ridge that forms watershed divide to north

### **Small-Patch Ecosystems**

- Livestock Ponds - few

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Doty Creek to Southwest, rolling Foothills with much Rural Residential and fragmented oak woodland

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Rural Residential dominates watershed, with habitats fragmented, small patches of trees and grassland, often heavily grazed

## Land use history and types/levels of impacts

- Some abandoned orchards are now open and grassy, mapped as Annual Grassland or Savanna. Much small-scale grazing (sheep, goats, llamas, cattle). Several small fields in Rural Residential areas have very dense yellow star-thistle infestations

## Other significant observations

- Some extensive Valley Foothill Riparian along Doty Ravine, and lower portion of Caps Ravine

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Dense Interior Live Oak has been mapped as Foothill Chaparral. Some Seasonal Wetland is actually Rubus/Salix shrubby riparian

## SPECIAL-STATUS SPECIES

### Species observed

- A northern goshawk and a Cooper's hawk (migrating birds) seen flying over the area
- A white-tailed kite observed at Garden Bar Road at Southeast corner

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Rural-Residential, Foothill Hardwood, Annual Grassland, Oak-Foothill Pine

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Several records in creek - Doty Ravine - creek has wide belt of Riparian Woodland in parts.

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High level; often dominant in riparian areas, mixed with shrubby willows to form dense patches in moist areas in fields
- Fennel - Low at one location, a small patch noted in irrigated pasture at eastern edge of watershed
- Tree-of-heaven - Low: one patch located at the junction of Mt. Pleasant Road and Wise Road
- In small riparian area on Burnett Road - Low to Moderate at this location: periwinkle, edible fig, and catalpa
- Yellow star-thistle - some roadsides have Trace to Low level infestations, some small fields in Rural-Residential areas have High level

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Sailors Ravine

Watershed Number: 13

Survey Date(s): 4/1/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill

Elevation Range (feet): Min: 338, Max: 1,391

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- > 10% - Annual Grassland, Rural Residential, Mixed Oak Woodland
- Rural Residential is open, with low tree cover and Annual Grassland fields
- Grazed fields are Annual Grassland, often mesic, with a few scattered oaks
- Large area of woodland (Oak-Foothill Pine / Mixed Oak Woodland) around Sailors Ravine and tributary along Baxter Grade Road in central portion of watershed
- Mixed Oak Woodland is a relatively open-canopy mixture of blue oak and live oak, with small patches more live oak-dominated
- Foothill Riparian Woodland occurs relatively continuously along several creeks, including Sailors Ravine and its un-named tributaries, and Doty Ravine; alder-dominated Riparian Woodland occurs along Sailors Ravine; cottonwood-valley oak dominated Riparian occurs on Doty Ravine; relatively large area of cottonwood-dominated (large mature trees) Riparian Woodland occurs along Doty Creek on Wise Road
- Himalayan blackberry is dominant understory in Foothill Riparian Woodlands and adjacent Foothill Hardwood Woodland; also common in and around seasonal wetlands in Annual Grasslands

#### **Small-Patch Ecosystems**

- Few Stock Ponds

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Sailors Ravine and 2 major un-named tributaries running east to west; Doty Ravine also runs east to west; rolling Foothills

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, Rural/Residential and small-scale agriculture

## Land use history and types/levels of impacts

- Some Rural/Residential expansion; some large areas of woodland with few roads around Sailors Ravine

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Some Oak-Foothill Pine was mapped as Foothill Hardwood

## SPECIAL-STATUS SPECIES

### Species observed

- White-tailed kite, red-shouldered hawk

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. White-tailed kite, Cooper's hawk nesting habitat. Valley elderberry longhorn beetle (elderberry present), foothill yellow-legged frog in Doty Ravine at pt. 24-4. Ringtail - potential habitat in riparian areas. Rural Residential, Oak-Foothill Pine, Annual Grassland, Foothill Hardwood. Large area of woodland (Oak-Foothill Pine/Foothill Hardwood) around Sailors Ravine

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

- None

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry abundant in this watershed, High level of infestation in Foothill Riparian Woodland and adjacent Foothill hardwood Woodlands; also dominant in swales and moist areas in Annual Grassland fields
- Periwinkle (High) and edible fig (Low) and English ivy (Moderate) noted in Doty Ravine, also yellow water iris present here
- Fennel - Trace in irrigated pasture on Buffalo Road
- Yellow star-thistle - Low to Moderate on roadsides



## ADDITIONAL COMMENTS

- Add any relevant observations not covered above that describe features unique to this watershed
- Numerous small patches of mixed willow/Himalayan blackberry riparian scrub occur in small Annual Grassland fields
- Oak woodland is generally mixed, some is more live oak dominated on broad ridges, more blue oak
- Rural Residential includes small irrigated pastures, small grazed Annual Grasslands fields, Himalayan blackberry thickets, and scattered live and blue oak trees
- Some areas mapped as Foothill Hardwood Woodland types are abandoned olive orchard, now regenerating mixed oak

## **WATERSHED SUMMARY**

Watershed Name: Markham Ravine

Watershed Number : 14

Survey Date(s): 3/05/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Sheridan

Elevation Range (feet): Min: 50, Max: 129

### **HABITAT/LAND COVER DESCRIPTION**

Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)

- >10% Cover: Rice, Annual Grassland, Vernal Pool Complex
- Large contiguous area of Annual Grassland and Vernal Pool Complex in center of watershed west of Lincoln Airport and north of Nicholas Rd
- Seasonal and Freshwater Wetlands and open water occur along Markham Ravine and creek to south, with some patches of willows
- Small area of Foothill Riparian along Coon Creek in the north of watershed with valley oak dominant, and associated alder and willows
- Coon Creek and Markham Ravine are perennial streams

#### **Small-Patch Ecosystems**

- None

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, with Markham Ravine in south and Coon Creek and small tributary in north portion

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- 99% Private
- Some Rural Residential scattered in southern portion
- Agriculture is dominant land use - large areas of rice; and Annual Grassland used for grazing

#### **Land use history and types/levels of impacts**

- Agriculture is dominant land use - much of the land is levelled and flooded for rice

#### **Other significant observations**

- Large area of undisturbed Annual Grassland / Vernal Pool Complex near center of watershed

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, how? What has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

## SPECIAL-STATUS SPECIES

### Species observed

- White-tailed kite nest located, northern harrier, sandhill cranes heard in the distance from north end of Brewer Road on 3-5-03

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Rice, Annual Grassland, Vernal Pool Complex

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Dwarf downingia	Yes	No	No access to this location, habitat visible on air photograph
Vernal pool fairy shrimp	Yes	No	No access to this location, habitat visible on air photograph

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle, medusa-head, Klamathweed - All found in Low levels along roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Hunting and fishing preserve at corner of Dowd and Nicholas Roads has good wetland and open water habitat

## **WATERSHED SUMMARY**

Watershed Name: North Ravine

Watershed Number: 15

Survey Date(s): 4/09/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Auburn, Gold Hill

Elevation Range (feet): Min: 466, Max: 1,693

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Urban/Suburban, Foothill Hardwood, Rural/Residential Forested, Oak-Foothill Pine
- Urban areas occupy about one third of watershed; east of Auburn is small-scale mosaic of Rural/Residential, Annual Grassland, and wooded areas
- Riparian Woodland along North Ravine on Millertown Rd is valley oak dominated
- Large area of Foothill Hardwood/Oak-Foothill Pine - relatively contiguous - east of Auburn on west bank of North Fork American River
- Smaller contiguous areas of Foothill Hardwood/Oak-Foothill Pine surrounded by Rural/Residential west and southwest of Auburn

### **Small-Patch Ecosystems**

- Few Stock Ponds (less than 1 acre), Few Landscape and Golf Course Ponds (less than 1 acre)
- Area of serpentine mapped in Auburn
- Very small area mapped as Mehrten formation in south of watershed has been developed with urban housing

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- City of Auburn, rolling foothills to west, North Fork American River to east; bisected by I80

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private Rural-Residential and Rural-Residential Forested, Auburn Urban/Suburban, Auburn State Recreation Area east of Auburn

### **Land use history and types/levels of impacts**

- Urban development in past

### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Changed some Rural-Residential Forested to Foothill Hardwood (no houses)

## SPECIAL-STATUS SPECIES

### Species observed

- Red-shouldered hawk

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Pools and riffles with cobble substrates and banks along North Fork American River suitable for mountain yellow-legged frog, also suitable habitat in creek on Stone Houses Road
- Cooper's hawk nesting possible in mature Oak Woodland-Savanna
- White-tailed kite habitat
- Marginal burrowing owl habitat

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Foothill yellow-legged frog	Yes	No	Portions of NE American River appear to provide suitable habitat.
Yuma myotis	Yes	No	Highway 49 bridge-night roost; foraging and roosting habitat present
Chinook salmon	Yes	No	Auburn Ravine
Grasshopper sparrow	Unknown	No	No access to site

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Low, Moderate and High; observed on roadsides and some Annual Grasslands
- Himalayan blackberry - High, dominant in many Foothill Riparian Woodlands
- Periwinkle - High in some Foothill Riparian Woodlands
- Giant reed, French broom, and poison hemlock - Moderate to High in some Foothill Hardwood Woodlands
- Tree-of-heaven - Low on roadsides at few sites; also fennel & edible fig noted - Low

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Riparian areas have dense Himalayan blackberry, mixed riparian trees, some have valley oak
- No extensive open areas - small Annual Grassland fields

## **WATERSHED SUMMARY**

Watershed Name: Upper Markham Ravine

Watershed Number: 16

Survey Date(s): 3/20/2003

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Gold Hill

Elevation Range (feet): Min: 90, Max: 453

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Vernal Pool Complex, Rural Residential
- Some large areas of undisturbed Annual Grassland in west with Vernal Pool Complex - appears to be intact
- Central portion is disked Row Crops
- Large wetland complex (Seasonal Wetland, Freshwater Emergent Wetland) north of clay mine not accessible (section 4)
- Clay mine north of Lincoln has large areas of bare ground
- Scattered large valley oaks trees occur along roads in west end of watershed
- Area of remnant valley oak woodland along Doty Creek in northwest not accessible ( section 36)
- Small areas of fragmented woodland occur in Rural Residential / Annual Grassland mosaic in east end of watershed

#### **Small-Patch Ecosystems**

- Many small stock ponds
- Mehrten Formation - small area mapped along southwest edge, part is Annual Grassland, part is Disturbed Lands associated with clay mine

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Western part - valley floor with large fields Annual Grassland; eastern part - low foothills, Rural-Residential with small patches of trees. Also includes northeast part of the town of Lincoln. Doty Creek runs along northwest edge

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private. Agricultural and rural residential. Highway 65 bisects western end

## Land use history and types/levels of impacts

- Some large areas of undisturbed Annual Grassland in west with Vernal Pools that appear to be intact. Central portion is disked Row Crops. Woodland very fragmented in east

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added some Valley Foothill Riparian and Seasonal Wetland in east

## SPECIAL-STATUS SPECIES

### Species observed

- A large flock of tricolored blackbirds was observed at the dairy on Manzanita Cemetery Road

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Annual Grassland, Pasture, Rural-Residential. Western section has large Annual Grassland and Pasture fields that provide habitat for foraging tricolored blackbird and foraging raptors

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Creek north of Lincoln - seems small, no riparian vegetation
Chinook salmon	Yes	No	Doty Creek - still present

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry is abundant, high level of infestation in swales and ditches in Rural Residential areas; some patches have been mechanically removed at sample point 15-4
- Yellow star-thistle - Trace to Moderate along roadsides, High in some dense patches in Rural Residential small fields in eastern end of watershed

## ADDITIONAL COMMENTS

### Add any relevant observations not covered above that describe features unique to this watershed

- Red-shouldered hawk seems common in east



## **WATERSHED SUMMARY**

Watershed Name: Auburn Ravine

Watershed Number: 17

Survey Date(s): 3/19/02 3/20/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill, Rocklin, Lincoln

Elevation Range (feet): Min: 174, Max: 935

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; use codes; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Annual Grassland, Rural-Residential, Mixed Oak Woodland
- Foothill Riparian Woodland - more or less continuous along both Auburn Ravine and Dutch Ravine; becomes especially wide area around confluence of Auburn Ravine and Dutch Ravine
- Valley oak is frequent in and adjacent to riparian areas
- Extensive area of Foothill Oak Woodland, including areas of blue oak woodland and savanna, in northwest-running series of valleys in south of watershed, with Foothill Riparian in most of these valleys
- Annual Grasslands and small fields in Rural Residential areas in northern portion of watershed contain numerous small Seasonal Wetlands and Fresh Emergent Wetlands (many too small to map) - many are grazed or landscaped

### **Small-Patch Ecosystems**

- Mehrten Formation mapped on ridge to south of watershed - this area supports Annual Grassland and Blue Oak Woodland and Savanna
- Numerous Landscape Ponds

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Auburn Ravine and Dutch Ravine run east to west; Rural - Residential on rolling hills in northwest two-thirds; dissected plateau with Oak Woodland in southeast third

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private - ranchettes, small-scale agriculture and grazing

### **Land use history and types/levels of impacts**

- Rural-Residential - habitats fragmented, many roads

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No) No , If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Changed some Foothill Hardwood to Oak-Foothill Pine; also added some Valley Foothill Riparian

## SPECIAL-STATUS SPECIES

### Species observed

- Western pond turtle - two observed basking at edge of pond at known occurrence 03-20-03 (CNDDDB)

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Annual Grassland, Rural-Residential, Oak-Foothill Pine, Foothill Hardwood. Yellow-breasted chat in dense riparian in Valleys in southeast portion; western pond turtle, Cooper's hawk

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Western pond turtle	Yes	Yes	Large pond with large woody debris, not much open water, water-hyacinth
Chinook salmon	Yes	No	Auburn Ravine –several records – has more or less continuous strip of Riparian Woodland, water is clear at date of survey
Yellow-breasted chat	Yes	No	Dense riparian with Himalayan blackberry, willows, and occasional cottonwood

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High level: abundant/ dominant in most riparian areas
- Yellow star-thistle - High, very dense infestations in some fields in northeast and north of watershed
- Water hyacinth - High at one location: very dense layer on pond at Fowler Rd north of Highway 193
- Oxalis pes-capra - Moderate in restricted area: small patches on disturbed roadside on Clark Tunnel Road

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Red-shouldered hawk numerous here

## **WATERSHED SUMMARY**

Watershed Name: Markham Ravine Headwaters

Watershed Number: 18

Survey Date(s): 3/20/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln

Elevation Range (feet): Min: 88, Max: 233

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Urban/Suburban, Annual Grassland, Rice, Vernal Pool Complex
- Fresh Emergent Wetlands and Lacustrine habitats along creek in Rice growing area in southwest of watershed, small amounts of willow/Himalayan blackberry riparian scrub
- Intact Vernal Pool Complex to northeast of Lincoln Airport - no access
- Large field southwest of Lincoln that was Annual Grassland on air photograph has been converted to cropland
- Fields at south end of airport appear to be mostly water treatment area - mapped as Seasonal Wetland
- Watershed includes most of the town of Lincoln
- Auburn Ravine runs along southern edge of Lincoln, has band of Riparian Woodland
- Small area of valley oak savanna with large trees is at junction of Nicholas Road and Lincoln Airpark Drive

### **Small-Patch Ecosystems**

- Mehrten Formation - two areas mapped: one on north edge of Lincoln appears to be under old log yard, the other to northeast is partly within quarry

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat; includes most of Lincoln, Agricultural fields (Annual Grassland, Rice) to west; Auburn Ravine to south and Markham Ravine in center are main creeks

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Urban with new housing development, some light industries. Includes Lincoln Airport and Sewage Treatment Plant (new). Extensive Annual Grassland and Rice fields in west

### **Land use history and types/levels of impacts**

- Lincoln development is expanding into remnant oak woodland-savanna and Annual Grassland

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Housing development expanding. Some Annual Grassland has been cultivated since 2000 air photograph. Some new Rice since 1994 layer

## SPECIAL-STATUS SPECIES

### Species observed

- None

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Urban/Suburban, Rice. Raptor foraging on Annual Grassland/Vernal Pool Complex areas

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Vernal pool fairy shrimp	Yes	No	Pools full (recent rain). Micro topography present, though parts of field looks like it may have been ditched.
Chinook salmon	Yes	No	Substantial Creek/wetland, Markham Creek
Dwarf downingia, Ahart's dwarf rush	Yes	No	Vernal Pools and Annual Grassland seem undisturbed
Boggs Lake hedge-hyssop	Yes	No	No access, Vernal Pool Complex appears undisturbed, adjacent to quarry
White-tailed kite	Unknown	No	Site at edge of Lincoln

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High: some patches in wetland/riparian along Markham Creek
- Edible fig - Trace: one plant seen at corner of airport/Nicolaus Road, few along Moore Road
- Yellow star-thistle - Trace or Low, generally scattered on roadsides; 1 dense patch near airport in ruderal grassland at sample point 14-5

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Upper Auburn Ravine

Watershed Number: 19

Survey Date(s): 4/02/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Gold Hill, Auburn

Elevation Range (feet): Min: 338, Max: 1,453

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10% - Rural/Residential, Mixed Oak Woodland, Rural/Residential Forested
- Mixed Oak Woodland has a high proportion of live oak
- Auburn Ravine and Doty Ravine have continuous, wide strips of Foothill Riparian Woodland with mixed tree species canopy and associated Foothill Hardwood Woodland on valley slopes; Himalayan blackberry is the dominant understory cover
- Over one third of watershed is Rural/Residential - open, with small patches of Foothill Hardwood Woodland usually grazed; some small relict woodland areas; fields are larger than other watersheds in the area; cattle are the main livestock
- Annual Grasslands and fields in Rural/Residential have frequent seasonal wetlands dominated by rushes and willow/Himalayan blackberry scrub
- Northwest corner of watershed (George's Ravine) has large area of Foothill Hardwood Woodland - not accessible or visible from any vantage points

#### **Small-Patch Ecosystems**

- Few Stock Ponds
- Small area of Mehrten Formation mapped on Boulder Ridge in west of watershed - is undeveloped Annual Grassland

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Foothills - Auburn Ravine and Doty Ravine run east - west; I80 and railroad corridor in southeast

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, Urban/Suburban, small scale agriculture

#### **Land use history and types/levels of impacts**

- Rural residential. Habitats fragmented, oak woodland often grazed, or within Rural-Residential Forested

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

## SPECIAL-STATUS SPECIES

### Species observed

- Red-shouldered hawk

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Urban/Suburban, Foothill Hardwood. Riparian/grassland matrix is suitable for white-tailed kite. Yellow-breasted chat, yellow warbler, and Modesto song sparrow in dense riparian. Chinook salmon and western pond turtle in Auburn Ravine. Foothill yellow-legged frog potentially in Auburn Ravine. Potential habitat in ponds for red-legged frog, but no source population

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Several records in Doty Ravine – wide band of Riparian Woodland runs along creek
Brandegee's clarkia	Uncertain	No	Mapped by I80. Habitat in vicinity looks fragmented and impacted by roads, but may remain

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High level: the dominant understory in most riparian areas
- Periwinkle - High: abundant dense cover in riparian areas
- Fennel - Trace to Low on roadsides
- Giant reed (Arundo) - at least one patch in Auburn Ravine
- Poison hemlock - Moderate to High at few locations occasionally on roadside along Auburn Ravine
- Edible fig - very scattered, Trace in Auburn Ravine
- Yellow star-thistle - Trace to High level on roadsides and High as dense patches in some fields

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Auburn waste water treatment plant has some open water

## **WATERSHED SUMMARY**

Watershed Name: Coon Creek

Watershed Number: 20

Survey Date(s): 3/17/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Lincoln, Roseville, Rocklin, Gold Hill

Elevation Range (feet): Min: 115, Max: 948

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Annual Grassland, Blue Oak Woodland, Urban/Suburban
- All Urban/Suburban area in this watershed is recent housing development
- Extensive area of Vernal Pool Complex/Annual Grassland between Highway 65 and new housing - topography and hydrology appear to be intact
- Large area of contiguous Blue Oak Woodland in northeast portion of watershed, some clearing of trees evident on air photograph
- Clover Valley is steep valley with Mixed and Live Oak Woodland, and Riparian Woodland along Clover Creek

#### **Small-Patch Ecosystems**

- Stock Ponds
- Mehrten Formation - extensive areas mapped across center and south of watershed - much of this area currently being developed (housing)

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Annual Grassland/Vernal Pool Complex; rapidly-expanding housing development; to east is Clover Valley, a deep valley with interior live oak, Foothill Hardwood; rolling foothills with Blue Oak Woodland in northeast

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private. Grazing, housing development

#### **Land use history and types/levels of impacts**

- Residential development on large scale, with new roads.
- Some cattle grazing on Annual Grassland in west

#### **Other significant observations**

- None



**PROBLEMS WITH INTERPRETATION**

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Conversion of Annual Grassland to Urban/Suburban and and large areas recently graded in preparation for building

**SPECIAL-STATUS SPECIES**

Species observed

- Northern harrier and white-tailed kite
- Swainson's hawk, observed over new housing development

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Annual Grassland, Urban/Suburban, Blue Oak Woodland, Vernal Pool Complex to west

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Yellow-breasted chat	Yes	No - too early in season to detect presence	Big trees dead, but dense willow and Himalayan blackberry understory; very close to recent housing development, drainage patterns may be altered
Great blue heron	Yes	No	Several large trees, but no nests seen
Grasshopper sparrow	± No	No	This site is now new housing development
Vernal pool fairy shrimp	Yes	No	Vernal Pool Complex - present and undisturbed
Dwarf downingia	Yes	No	Vernal Pool Complex - present and undisturbed
Linderiella	Yes?	No	Pond at roadside – appears to be still present, but no access

**INVASIVE NON-NATIVE SPECIES**

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High level: common, often dense cover in riparian areas and swales, especially in east
- Giant reed (Arundo) - observed in pond at Oak Tree Lane/Hwy 193
- Klamathweed - Low, scattered on roadsides and field edges
- Yellow star-thistle and medusa head - Low to Moderate, generally scattered on roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Red-tailed hawk - Several seen; Red-shouldered hawk - seen in wooded valley to east

## **WATERSHED SUMMARY**

Watershed Name: Orchard Creek

Watershed Number: 21

Survey Date(s): 3/24/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pleasant Grove, Lincoln, Roseville

Elevation Range (feet): Min: 77, Max: 163

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Vernal Pool Complex
- Some large contiguous areas of annual Grassland / Vernal Pool Complex are intact to east and south
- Extensive area of Foothill Riparian Woodland on Auburn Ravine at Moore Road - Valley Oak is dominant, but mapped as Foothill Riparian; diverse canopy and understory with black willow, live oak, ash, box elder, and Himalayan blackberry
- Many small cattail-dominated swales, many too small to map, occur in Annual Grasslands
- Still some large areas of Annual Grassland, but some cropped/built/zoned industrial
- Large wetland complex visible on air photograph south of rice fields and Auburn Ravine, but cannot access or see; adjacent Annual Grassland has been cultivated

### **Small-Patch Ecosystems**

- Few Stock Ponds

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, large areas of Vernal Pool Complex and Annual Grasslands; some Rice; Auburn Ravine with broad Riparian Woodland runs along northwest

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Some Annual Grasslands west of Industrial Blvd are zoned Industrial, some already built, construction of large casino in progress
- New Lincoln WWTP
- Some Annual Grassland has been disked and cultivated in winter wheat in west

## Land use history and types/levels of impacts

- Annual Grassland with Vernal Pool Complex - conversion in progress to industrial/malls
- Restoration area in center - west, south of Auburn Ravine, has wetlands - no access and not visible from public road

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Recent conversion of Annual Grassland to Urban/Suburban and Row Crops

## SPECIAL-STATUS SPECIES

### Species observed

- White-tailed kite, northern harrier, tricolored blackbird, Swainson's hawk, loggerhead shrike

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Large Vernal Pool Complex in east; large Annual Grassland area provide foraging habitat for raptors

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Swainson's hawk	Yes	No	Auburn Ravine/Moore Road - good riparian with big trees
Swainson's hawk	Yes?	No	Patch of eucalyptus at industrial shed is only nesting habitat
Vernal pool species	Unknown	No	Cannot access area - looks intact on air photograph
Tricolored blackbird	Unknown	No	No access

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High: dominant in riparian woodlands and swales
- Tree-of-heaven - Low: small patch seen on E. Catlett Rd
- Medusa-head - Trace on roadsides
- Yellow star-thistle - Trace to Moderate on roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Dutch Ravine

Watershed Number: 22

Survey Date(s): 3/28/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Pilot Hill, Gold Hill, Auburn

Elevation Range (feet): Min: 417, Max: 1,286

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; use codes; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10% - Rural-Residential, Rural-Residential Forested, Annual Grassland
- Over half the watershed is Rural Residential and Rural-Residential Forested
- Foothill Hardwood, Blue Oak Woodland
- Foothill Riparian Woodland occurs along Antelope Creek by Clark Tunnel Road; some riparian areas on Secret Ravine mapped as Rural/Residential Forested
- In general, many small patches of riparian vegetation, too small to map, occur in Rural/Residential and R/R Forested land-cover types

#### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre)

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Bisected by I80 corridor; developed Foothills

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, some city-owned lands in Newcastle downtown and waste-water treatment ponds

#### **Land use history and types/levels of impacts**

- Primarily developed for rural residential with smaller areas of urban development, fragments of natural habitats remaining

#### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Some small areas of change where additional housing development has occurred

## SPECIAL-STATUS SPECIES

Species observed

- Red-shouldered hawk, Cooper's hawk (nesting), osprey, red-tailed hawk pairs

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Rural-Residential, Rural-Residential Forested, Annual Grassland, Foothill Hardwood, Blue Oak Woodland

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Secret Ravine - stream still present with riparian vegetation, much Rural/Residential development along creek.

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Low
- Giant reed (Arundo) - Trace
- Periwinkle - Moderate around ponds and in riparian habitats

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Potential at Newcastle sewage ponds for large numbers of waterfowl
- Potential for foothill yellow-legged frog and western pond turtle at Secret Ravine, which supports chinook salmon
- Large Seasonal wetland in southwest corner of watershed is potential habitat for black rail
- Some riparian areas may provide habitat for long-eared owl
- Many riparian fragments occur throughout the Rural-Residential and Rural-Residential Forested mapped areas in this watershed, as well as through some Foothill Hardwood mapped areas. Many are not discernable on the air photograph, but as many as possible have been mapped separately from the surrounding cover types

## **WATERSHED SUMMARY**

Watershed Name: Mormon Ravine

Watershed Number: 23

Survey Date(s): 4/15/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pilot Hill, Auburn, Rocklin

Elevation Range (feet): Min: 448, Max: 1,444

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Mixed Oak Woodland, Oak-Foothill Pine, Rural-Residential
- Almost half this watershed is woodland, occurring as large contiguous area of Mixed Oak and Oak-Foothill-Pine woodland on slopes of Folsom Lake to the east; no access to much of this area
- Not possible to assess Foothill-Chaparral areas to verify mapping and document species composition
- Some valley oak dominated Riparian Woodland on valley floor to southwest of Auburn - some is included in Rural-Residential Forested
- Rural-Residential south of Auburn has small fields, often heavily grazed by with goats, sheep, cattle, llamas
- Riparian areas often have dense sandbar willow/Himalayan blackberry scrub
- Abandoned orchards are frequent around Auburn - some are grazed, some are regenerating mixed oaks and coyote brush

### **Small-Patch Ecosystems**

- Some Stock Ponds (less than 1 acre)
- Small area of Mehrten Formation mapped at northern edge of watershed - some recent Urban housing development on this site

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Elongated area - wooded slopes of Folsom Lake, and gently rolling Rural Residential lands in northwest

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, public land on State Recreation Area; Sterling Pointe Equestrian Area (Placer County)

### **Land use history and types/levels of impacts**

- Rural-Residential/Rural-Residential Forested area - fragmented woodland and riparian areas

### **Other significant observations**

- None



## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added small riparian area

## SPECIAL-STATUS SPECIES

Species observed

- None

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Oak-Foothill Pine, Rural-Residential, Foothill-Chaparral. Some riparian areas with potential nesting habitat for yellow warbler, yellow-breasted chat, and Modesto song sparrow. Some forest patches suitable for Cooper's hawk

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Western pond turtle	Unknown	No	No access to site
Bank swallow	Unknown	No	Site not visited
Yellow-breasted chat	Unknown	No	Site not visited, appears to be Riparian Woodland on air photograph

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalyan blackberry - dominant in most riparian areas
- Edible fig - Trace in few riparian
- Periwinkle -High in some riparian
- Fennel -Trace in outskirts of Auburn
- Yellow star-thistle - Trace to Moderate along roadsides; Moderate to High in some abandoned orchards and ungrazed fields

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Upper Antelope Creek

Watershed Number: 24

Survey Date(s): 4/11/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Gold Hill

Elevation Range (feet): Min: 302, Max: 951

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; use codes; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Rural-Residential, Rural Residential Forested, Foothill Hardwood Woodland
- Valley oak is frequent to dominant in some Foothill Riparian Woodland areas and adjacent terraces, especially along Antelope Creek

### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre), Landscape and Golf Course Ponds (less than 1 acre)
- Mehrten Formation - small area is mapped on Boulder Ridge in extreme northern portion of watershed; habitat is Annual Grassland

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- I-80 and Sailors Ravine bisect; Antelope Creek bisects northern half

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private - Rural-Residential

### **Land use history and types/levels of impacts**

- Rural-Residential. Some Rural-Residential Forested - fragmented riparian and patches of oak dominated woodland; small-scale grazing of horses and cattle in Annual Grassland and Irrigated Pastures

### **Other significant observations**

- None

## **PROBLEMS WITH INTERPRETATION**

### **Has the vegetation/land use changed since air photo taken? (Yes, No)**

- No

**If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)**

- Added some small Valley Foothill Riparian and Foothill Hardwood

**SPECIAL-STATUS SPECIES**

**Species observed**

- White-tailed kite, red-shouldered hawk, Cooper's hawk

**Suitable habitats for covered special-status species (Yes, No, List Habitats)**

- Yes. Rural-Residential, Foothill Hardwood. Elderberry bushes for valley elderberry longhorn beetle. White-tailed kite nesting habitat. Swales suitable for black rail. Western pond turtle habitat in abundant landscape ponds and regulated creeks with permanent or near permanent water, however, human disturbance in Rural/Residential areas reduces habitat value

**Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)**

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Double-crested cormorant (breeding)	No access	No	No access to site near Penryn; site not visible
Chinook salmon	No access	No	One record in Antelope Creek

**INVASIVE NON-NATIVE SPECIES**

**Species observed + Level of Infestation (Trace/Low/Moderate/High)**

- Himalayan blackberry - High: dominant in some riparian areas
- Periwinkle - high level noted at one site
- Edible fig - Low, noted at one site
- Yellow star-thistle - Moderate to High on some roadsides and small fields in Rural-Residential areas
- Fennel - Low infestation noted at one site

**ADDITIONAL COMMENTS**

**Add any relevant observations not covered above that describe features unique to this watershed**

- Taylor Ranch Bird Sanctuary and Nature Reserve is area of Valley Oak Woodland and savanna with small cattail marshes and seasonal wetlands
- Much of the area appears likely to be former wet meadow/wetland

## **WATERSHED SUMMARY**

Watershed Name: Orchard Creek Headwaters

Watershed Number: 25

Survey Date(s): 3/24/03 and 3/31/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Roseville, Rocklin

Elevation Range (feet): Min: 92, Max: 554

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Urban/Suburban (Industrial), Vernal Pool Complex
- Some large contiguous areas of Annual Grassland / Vernal Pool Complex remain along SR65
- New housing development occurring on Annual Grasslands in northern portion
- Pond on 12 Bridges Road to northeast has mature black willow/cottonwood surrounding; potential habitat for western pond turtle, yellow-breasted chat; potential heron rookery and raptor nesting structure, but no nests seen
- Foothill Hardwood Woodland (blue oak and buckeye) on steep slopes in east is relatively undisturbed
- Large areas of Annual Grassland are being fragmented by housing and industrial development

### **Small-Patch Ecosystems**

- Mehrten Formation - very extensive areas mapped over much of watershed; northern approximately two thirds of this area is currently being developed (housing)

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Generally flat, no major drainageways; SR65 bisects watershed

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private. New industrial developments (warehouses) in southwest portion
- Sun City expanding to north and east

### **Land use history and types/levels of impacts**

- Formerly extensive areas of Annual Grassland and Vernal Pool Complex converted to new housing development
- Some Foothill Hardwood Woodland on steep slopes remains between houses and seasonal wetlands

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Housing development

## SPECIAL-STATUS SPECIES

### Species observed

- Tricolored blackbird, white-tailed kite, northern harrier
- Tricolored blackbird colony (500 - 1000 individuals) observed in cattail marsh on 12 Bridges Road, immediately next to new housing development

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Annual Grassland provides foraging habitat for raptors, grasshopper sparrow, and tricolored blackbird. Ponds for western pond turtle, heron rookery; oak woodland - nesting raptors. Annual Grasslands provide burrowing owl habitat and foraging habitat for wintering raptors such as golden eagle and rough-legged hawk

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Grasshopper sparrow	Yes/No	No	Housing development near site
Vernal pool fairy shrimp (north)	Yes	no	Habitat remains beside new road, but looks like zoned for housing
Vernal pools fairy shrimp (west)	Yes	No	Large area of undisturbed Annual Grassland/Vernal Pool Complex here
Dwarf downingia	Yes	No	Large area of undisturbed Annual Grassland/Vernal Pool Complex here; no access

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Trace to Moderate on roadsides, High in some ruderal Annual Grasslands near industrial areas
- Medusa head - Trace on some roadsides

## ADDITIONAL COMMENTS

**Add any relevant observations not covered above that describe features unique to this watershed**

- Fresh Emergent Wetland Swale with tricolored blackbird colony has young trees planted in cages at lower end
- Large Seasonal Wetland mapped to west of industrial development on Industrial Blvd - no access to verify

## **WATERSHED SUMMARY**

Watershed Name: Miners Ravine

Watershed Number: 26

Survey Date(s): 3/28/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Pilot Hill

Elevation Range (feet): Min: 400, Max: 1,014

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; use codes; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- Rural-Residential, Rural-Residential Forested, Foothill Hardwood Woodland
- Almost two thirds of watershed is Rural Residential and Rural-Residential Forested
- Rural-Residential Forested is oak-dominated - live oak and blue oak; includes many small areas of Riparian Woodland and patches of willow/Himalayan blackberry scrub
- Large area of Oak-Foothill Pine located Southwest of Eden Rock (Lomido Lane) in Southeast corner
- Foothill Chaparral area was impossible to see in the field, but may be coyote bush dominated
- Stand of large (dbh 12" - 30") Fremont cottonwood at Glen Brook Mobile Estate - all the trees are tagged, and many more trees are tagged along Dick Cook Road
- Very extensive Rural-Residential Forested - creeks are often landscaped and dammed to form small Landscape Ponds, some are over-grazed/trampled by livestock
- Large new homes being built in Foothill Hardwood Woodland habitat, and new gated communities
- Interior live oak is often the dominant oak in Foothill Hardwood Woodland
- Some small stands of valley oak are associated with larger creeks

### **Small-Patch Ecosystems**

- Many Landscape Ponds (less than 1 acre), often with cattail in adjacent swales and edges

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Rural-Residential often with dense oak cover. Rolling foothill topography; Miners Ravine in center to south

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, rural-residential, densely roaded; some huge houses. Equestrian seems to be main activity locally

## Land use history and types/levels of impacts

- Much landscaping of oak woodland in Rural-Residential Forested and creeks dammed to create Landscape Ponds (less than 1 acre). Some heavy grazing, mostly horses in small fields. Some house building - gated communities

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

## SPECIAL-STATUS SPECIES

### Species observed

- Western pond turtle - 2 adults basking in large pond at Hidden Oaks Lane near Glenbrook Mobile Estate
- A pair of adult Cooper's hawks observed soaring over Cavitt-Stallman Road

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Rural-Residential Forested, Rural-Residential, Foothill Hardwood, Oak-Foothill Pine, Foothill Chaparral. Some Landscape Ponds (less than 1 acre) are suitable for western pond turtle. Yellow-breasted chat is possible in some of the larger riparian areas. Yellow-billed cuckoo is potential in cottonwood stand. Cooper's hawk nesting habitat

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Great blue heron	Yes	Yes	Several active nests in tall foothill pine trees around lake - 7 great egret nests and 4 great blue heron nests counted
Valley elderberry longhorn beetle	Unknown	No	Three occurrences – no access to these sites



## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - abundant in riparian areas
- Periwinkle - High, very dense in Rural Residential Forested - moist woodlands along Auburn-Folsom Road
- Yellow star-thistle - Low to Moderate roadsides, High in some fields
- Giant reed (Arundo) - observed on Auburn-Folsom Road at Lakeview Hills (South end)
- Spanish Broom - Trace, seen at a few locations on roadsides
- Tree-of-heaven - Low to Moderate near Glen Brook Mobile Estate in riparian area across road
- Pampas grass - appears to be Low to Moderate in riparian habitat on Moss Lane

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Lower Antelope Creek

Watershed Number: 27

Survey Date(s): 4/15/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Roseville, Rocklin, Citrus Heights

Elevation Range (feet): Min: 84, Max: 600

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- > 10%: Urban/Suburban, Annual Grassland
- More than half this watershed is Urban/Suburban
- Small areas of Urban Woodland, Seasonal Wetland, Valley Foothill Riparian
- Riparian forest along Dry Creek is well-developed, cottonwood and valley oak present
- A large Urban Wetland within Pleasant Grove Creek, where it crosses Sunsest Blvd., supports fresh emergent wetland vegetation (lots of cattails) and is a large area of wetland in spite of the adjacent roads, apartment complex, and homes
- Many fragments of Annual Grassland are present within developed areas, and may still support vernal pools, esp. along the SR65 corridor
- Foothill Hardwood Woodland (Blue Oak Woodland with buckeye) on steep slopes in east is relatively undisturbed

#### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre)
- Mehrten Formation - several large areas mapped; area in center is recently developed; some areas in north of watershed remain adjacent to new housing development

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Urban dominated, generally flat; Dry Creek traverses the southern part of watershed

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, a portion is the Southern Pacific RR. Mostly residential, commercial

#### **Land use history and types/levels of impacts**

- Much of this watershed is within the city limits of Roseville and Rocklin, so includes primarily Urban/Suburban cover with pockets of undeveloped Annual Grassland. There are two golf courses within the watershed

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Several areas mapped as Disturbed Lands or Annual Grassland are now developed Urban/Suburban

## SPECIAL-STATUS SPECIES

### Species observed

- Swainson's hawk, red-shouldered hawk, northern harrier

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Urban/Suburban areas provide habitat for yellow warbler and Modesto song sparrow. Annual Grassland for open-county foraging raptors. Small areas of Urban Woodland, Seasonal Wetland, Valley Foothill Riparian are good nesting areas for other covered passerine species

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Occurrences in Dry Creek, Antelope Creek
Legenere & other vernal pool associated species	Probably not	No	A few areas of undeveloped Annual Grassland are still extant along Stanford Ranch Road, but most of this area is developed.
Legenere	Possibly	No	Possibly extant in a large grassland between SR65 and Sunset Road
Vernal pool fairy shrimp, dwarf downingia, Boggs Lake hedge-hyssop	Possibly	No	Possibly extant in grasslands SW of SR 65

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Trace, mostly along roadsides and in Annual Grassland adjacent to roads

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Watershed encompasses three golf courses: Diamond Oaks (municipal), Whitney oaks (private), and Sunset Oaks
- The largest remaining Annual Grassland area in the north was not accessible. The valley oak stands could not be confirmed

## **WATERSHED SUMMARY**

Watershed Name: Pleasant Grove Creek

Watershed Number: 29

Survey Date(s): 3/5/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pleasant Grove, Roseville

Elevation Range (feet): Min: 45, Max: 126

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Rice, Vernal Pool Complex, Annual Grassland, Rice
- Valley Foothill Riparian occurs all along Pleasant Grove Creek - has valley oak, dense Himalayan blackberry in understory; very small area of valley oak savanna occurs on Philip Road
- Large contiguous area of Vernal Pool Complex in northeast lobe of watershed

#### **Small-Patch Ecosystems**

- None

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, Pleasant Grove Creek bisects watershed, and has several unnamed tributaries

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- 99% private - Grazing and agriculture (rice and wheat)
- One development of rural residential; corner of new Waste Water Treatment Plant is within watershed

#### **Land use history and types/levels of impacts**

- A number of rice fields are currently fallow

#### **Other significant observations**

- Only one flooded rice field in this watershed

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how? What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Field that appears to be in rice production on 2000 air photographs are fallow

## SPECIAL-STATUS SPECIES

Species observed

- Northern harrier, white-tailed kite

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Vernal Pool Complex, Annual Grassland, Rice, Unidentified Cropland, Row Crops, Valley Foothill Riparian

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Dwarf downingia	Yes	No	Good Vernal Pool habitat present
Western spadefoot toad	Yes	No	Water treatment plant adjacent to location

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - Moderate to High in riparian vegetation along Pleasant Grove Creek
- Yellow star-thistle & Klamath weed - Trace to Low along roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Line of willows adjacent to Phillip Road along edge of rice field
- Several red-tailed hawks observed (eastern edge of watershed)
- Pleasant Grove Creek has good mature valley oak riparian habitat. See data form 3-2

## **WATERSHED SUMMARY**

Watershed Name: Antelope Creek

Watershed Number: 30

Survey Date(s): 4/12/03 and 4/15/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin

Elevation Range (feet): Min: 236, Max: 623

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Urban/Suburban, Rural Residential, Foothill Hardwood Woodland
- Mixed Oak Woodland has live oak often abundant, with blue oak
- Large area of dense swampy riparian woodland with large overstory Fremont cottonwood on Wells Avenue/Barton Road
- Rural-Residential Forested at southend of Val Verde is dominated by large valley oaks
- Swampy Lane has complex pf Fresh Emergent Wetlands, some open water, and Riparian Woodland adjacent to Rural-Residential Forested area
- Secret Ravine has dense, but sometimes narrow, Riparian Woodland

### **Small-Patch Ecosystems**

- Landscape and Golf Course Ponds
- Small area of Mehrten Formation mapped at south edge of watershed - supports Annual Grassland adjacent to very recent Urban/Suburban housing development

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- I-80 bisects watershed, and Secret Ravine runs parallel to I80; Urban development in southwestern portion and along I80 corridor; to east, open Rural Residential; south & west of I80 more tree cover, Rural Residential Forested

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Urban and Rural-Residential, much is forested east of freeway

## Land use history and types/levels of impacts

- Woodland cover fragmented by rural-residential development, but still has high canopy cover; not much open pasture/grassland
- Fire has recently (last year) burnt through part of Foothill Riparian Woodland on Wells Ave/Barnton Rd , and crown fire has killed trees at east edge of riparian area, through valley oak stand and into Foothill Hardwood Woodland north of road and around St Joseph's; to the south of Wells Avenue, understory and small trees have been cleared perhaps because of fire damage, and large trees are cut up and piled for firewood

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

### Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

### If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added some Valley Foothill Riparian areas
- Urban-Suburban mislabeled as Rural Residential

## SPECIAL-STATUS SPECIES

### Species observed

- Red-shouldered hawk, Cooper's hawk

### Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Urban Suburban, Rural Residential, Foothill Hardwood. Western pond turtle habitat found at the wetlands off Val Verde. Dense riparian along Secret Ravine and elsewhere, suitable for yellow-breasted chat and Modesto song sparrow

### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Secret Ravine
Yellow-breasted chat	Probably	No	No access to site; in Riparian Woodland along Secret Ravine. Habitat appears to be present on air photos.
Valley elderberry longhorn beetle	Unknown	No	No access to site; in Riparian Woodland along Secret Ravine. Habitat appears to be present on air photos.

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Several invasive species observed in riparian areas, especially in Rural-Residential and Urban/Suburban areas; generally Trace, Low, or Moderate levels of infestations
- Himalayan blackberry - High; generally abundant to dominant in Riparian Woodlands
- Tree-of-Heaven - Low to Moderate
- Black locust, French broom - Low to Moderate
- Edible fig - Low at Wells Avenue
- Pampas grass - Low, scattered clumps observed
- Iris pseudacoris - Moderate in Landscape Ponds at Val Verde - may not be invasive in this situation

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Oak trees are all tagged along Dick Cook Road



## **WATERSHED SUMMARY**

Watershed Name: Upper Dry Creek

Watershed Number: 31

Survey Date(s): 4/3/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Roseville, Citrus Heights, Rio Linda, Pleasant Grove

Elevation Range (feet): Min: 60, Max: 145

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Annual Grassland, Urban/Suburban, Vernal Pool Complex
- Large areas of relatively undisturbed, but grazed, Annual Grassland in the north, with some Seasonal Wetland and areas of Vernal Pool Complex
- Scattered willows along unnamed creek crossing Fiddymont Road south of East Catlett Road to Power Line Road
- Well-developed Foothill Riparian Woodland along Dry Creek in south of watershed
- Some patches of Valley Oak Woodland mapped; also some areas mapped as Oak Woodland-Savanna are scattered valley oak

### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre)

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Large flat watershed, central portion urbanized; South Branch Antelope Creek, Pleasant Grove Creek, Dry Creek, and several unnamed drainages cross the watershed from east to west

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private

### **Land use history and types/levels of impacts**

- Northern portion is still open Annual Grassland, either grazed or with crops and Vernal Pool Complex; the central portion is primarily dense residential development; in the south is some undeveloped Annual Grassland, but substantial Urban and Rural Residential development.

### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Several open (grassland) areas in the southern third of the watershed are currently being constructed on.

## SPECIAL-STATUS SPECIES

Species observed

- White-tailed kite, red-shouldered hawk, sharp-shinned hawk

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Annual Grassland, Urban/Suburban, Unidentified Cropland. Large areas of Annual Grassland in the north provide foraging and nesting habitat for raptors

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Swainson's thrush	No	No	Area is developed, but many trees left in golf course
Swainson's hawk	Yes	No	Developed, but many trees left in golf course provide potential nesting structures
Vernal pool fairy shrimp	No	No	Area south of Pleasant Grove Blvd is developed
Dwarf downingia	Yes	No	Habitat intact
California linderiella	Yes	No	Habitat intact
Chinook salmon	Yes	No	Several occurrences in Dry Creek - habitat appears intact

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High in riparian areas
- Giant reed (Arundo) - infestation at Watt Avenue and Dry Creek
- Traces of Yellow star-thistle frequent on roadsides and in Annual Grassland

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: S Branch Pleasant Grove Creek

Watershed Number: 32

Survey Date(s): 4/4/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Roseville

Elevation Range (feet): Min: 81, Max: 181

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Urban Suburban, Annual Grassland
- Blue Oak Woodland, Valley Foothill Riparian, Vernal Pool Complex (high and low density), Seasonal Wetland
- Foothill Riparian to Blue Oak Woodland habitats are relatively undisturbed, but adjacent habitats are primarily developed. One large patch of Annual Grassland is extant in the center of the watershed, with several smaller patches to the east
- Vernal Pool habitat in flood plain of stream (tributary of Pleasant Grove Creek) between SR65 and Fairway Drive, at data point 19-1
- Blue oak woodland bisected by Woodcreek Oaks Blvd is a good oak woodland habitat (data pt. 19-2). This woodland is adjacent to riparian habitat along the South Branch of Pleasant Grove Creek
- Riparian Woodland associated with Pleasant Grove Creek is also high-quality, multi-storied vegetation, with live oak/valley oak canopy
- Low-density Vernal Pool habitat appears to be extant in the large Annual Grassland area south of Blue Oaks Blvd

### **Small-Patch Ecosystems**

- Mehrten Formation - very small corner reaches this watershed, recent housing development on this area

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, urban; Pleasant Grove Creek and South Branch of Pleasant Grove Creek are the main drainages, with smaller tributaries

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Mostly private

### **Land use history and types/levels of impacts**

- This area includes expanses of former Annual Grassland grassland that are now developed or undergoing development, and two main riparian corridors - one along Pleasant Grove Creek, and one along the Branch of Pleasant Grove Creek

## Other significant observations

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Several Areas identified as Annual Grassland have been graded and are being developed as residential areas

## SPECIAL-STATUS SPECIES

### Species observed

- White-tailed kite, red-shouldered hawk (pair)

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. All of the habitat types listed above provide some suitable habitat for covered species. Annual Grassland, Blue Oak Woodland, Valley Foothill Riparian, Vernal Pool Complex (high and low density), Seasonal Wetland. One large patch of Annual Grassland/Vernal POol Complex in center of watershed provides good foraging and nesting habitat for raptors

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Big-scale balsamroot	Yes	No	West side of Industrial is developed. East side is still annual grassland.
Dwarf downingia	No	No	Habitat is now developed
Vernal pool fairy shrimp, California linderiella	Yes to No	No	Habitat in the central part of watershed (east of golf course) is extant. Habitat in northeast corner is developed.
White-tailed kite	Yes	No	Nesting habitat present in Foothill Riparian, foraging habitat in adjacent Annual Grasslands
Swainson's hawk	Yes	No	Nesting habitat present in Foothill Riparian along Pleasant Grove Creek, foraging habitat in adjacent Annual Grasslands

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- No extensive infestations observed
- Yellow star-thistle - Low
- Klamath weed - Trace

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Curry Creek

Watershed Number: 33

Survey Date(s): 3/7/03 and 3/12/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pleasant Grove, Roseville

Elevation Range (feet): Min: 43, Max: 130

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Rice, Annual Grassland, Vernal Pool Complex
- Very large extensive area of intact Vernal Pool Complex in east part of this watershed - this area contains records for several special-status species
- Mature valley oaks along a seasonal stream (tributary to Pleasant Grove Creek) that crosses Phillip Road in northeast corner
- Curry Creek and a tributary are within watershed; wetland at the head of the tributary supports a small stand of willows and cottonwoods. Curry Creek has patches of Riparian Woodland with some large trees that are nesting habitat for raptors
- Small strip of scattered riparian trees along creek at south Baseline Road
- Small flooded rice field on Brewer Road provide habitat for shorebirds
- High quality Seasonal Wetland/Vernal Pool Complexes in Annual Grassland to west

#### **Small-Patch Ecosystems**

- None

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, Rice is dominant land use; extensive areas of good quality Annual Grassland/Vernal Pool Complex

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private. Grazing and Rice cultivation. New Roseville waste water treatment plant in northeast of watershed

#### **Land use history and types/levels of impacts**

- Annual Grassland is grazed but has not been levelled or disked

**Other significant observations**

- None

**PROBLEMS WITH INTERPRETATION**

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, how? What has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

**SPECIAL-STATUS SPECIES**

Species observed

Has the vegetation/land use changed since air photo taken? (Yes, No) No , If Yes, how?

- White-tailed kite, northern harrier, loggerhead shrike

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Extensive Annual Grassland habitat for foraging and ground-nesting raptors. Rice. Vernal Pool Complex cover large contiguous area - good quality habitat for Vernal Pool associated species

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Burrowing owl	Yes	No	Burrowing owl habitat is intact
Dwarf downingia, western spadefoot toad, California linderiella, vernal pool fairy shrimp	Yes	No	Vernal pool habitat present and intact

**INVASIVE NON-NATIVE SPECIES**

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Low to Medium on some roadsides

**ADDITIONAL COMMENTS**

Add any relevant observations not covered above that describe features unique to this watershed

- Access very limited

## **WATERSHED SUMMARY**

Watershed Name: Secret Ravine

Watershed Number: 34

Survey Date(s): 4/16/03 and 5/4/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Folsom

Elevation Range (feet): Min: 318, Max: 582

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; use codes; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Lacustrine (Folsom Lake); dominant terrestrial types are Rural Residential, Rural Residential Forested
- Baldwin Reservoir is a large pond/Fresh Emergent Wetland complex
- Large area of open water, wetlands, and riparian woodland east of Auburn - Folsom Road south of Cavitt-Stallman Road - no access.
- Much of the tree cover in Rural-Residential Forested is live oak, often dense.
- Miners Ravine Nature Reserve has dense and diverse Foothill Riparian Woodland vegetation with some public access trails

### **Small-Patch Ecosystems**

- Landscape and Golf Course Ponds (less than 1 acre)

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- West shore of Folsom Lake, Rural Residential on rolling foothills

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private rural, residential, large homes. California State Park with public access along lake edge; Miners Ravine Nature Reserve provides public access to mature riparian woodland

### **Land use history and types/levels of impacts**

- Rural-residential housing with some to dense tree cover
- Some small-scale agriculture in northwest portion

### **Other significant observations**

- None



**PROBLEMS WITH INTERPRETATION**

Has the vegetation/land use changed since air photo taken? (Yes, No)

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

**SPECIAL-STATUS SPECIES**

**Species observed**

- None

**Suitable habitats for covered special-status species (Yes, No, List Habitats)**

- Yes. Lacustrine (Folsom Lake), Rural Residential, Rural Residential Forested. Elderberry shrubs observed in riparian/oak vegetation - potential habitat for valley elderberry longhorn beetle. Some dense Foothill Riparian areas suitable for yellow-breasted chat, yellow warbler, and Modesto song sparrow. Many dammed ponds suitable for western pond turtle

**Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)**

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Western pond turtle	Yes	No	Baldwin Reservoir. See sample point #32-1.
Chinook salmon (Stallman corners occurrence)	Unknown	No	Creek appears from photo to be dammed.
Chinook salmon (center)	Unknown	No	No access to creek - appears to have riparian trees on photo.
Chinook salmon (center & west)	Unknown	No	No access to creek. Small but appears to have riparian tree cover.

**INVASIVE NON-NATIVE SPECIES**

**Species observed + Level of Infestation (Trace/Low/Moderate/High)**

- Himalayan blackberry - High level in some riparian areas
- Pampas grass - Trace
- Edible fig - Trace to Low in riparian areas
- French broom - Trace to Low in some riparian and associated oak woodland

**ADDITIONAL COMMENTS**

**Add any relevant observations not covered above that describe features unique to this watershed**

- Baldwin Reservoir is a large pond/marsh complex that supports nesting Canada Geese and other waterfowl.

## **WATERSHED SUMMARY**

Watershed Name: Strap Ravine

Watershed Number: 35

Survey Date(s): 5/02/03 and 5/04/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Roseville

Elevation Range (feet): Min: 142, Max: 548

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Urban/Suburban, Annual Grassland, Mixed Oak Woodland
- Miners Ravine and Secret Ravine have almost continuous Riparian Woodland and associated Foothill Hardwood Woodland on terraces and valley slopes; white alder and willows are dominant trees, few valley oaks
- Antelope Creek Drive - City of Roseville Wetland Preserve - has some dense valley oak regeneration and small Fresh Emergent Wetland
- Large area of new housing or Mehrten formation in center of watershed; some patches of mature blue oak remain around houses
- Some open areas of Annual Grassland in northeast and center north
- Extensive patch of Mixed Oak Woodland in eastern portion, and some smaller areas of Blue Oak Woodland in eastern portion

### **Small-Patch Ecosystems**

- Very few Landscape and Golf Course Ponds (less than 1 acre)
- Mehrten Formation - mapped in a large band running southwest-northeast in center of watershed, and smaller patch in northwest; these areas appear to be almost entirely developed

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Urban/Suburban, new housing development; Miners Ravine and Secret Ravine are main creeks

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Urban (housing), City of Roseville. Has some wetland preserves (e.g., Antelope Creek at Antelope Creek Drive), and Miners Ravine

### **Land use history and types/levels of impacts**

- New housing development on Mehrten formation in center of watershed

### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how? What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Disturbed Lands are now mapped as Urban/Suburban

## SPECIAL-STATUS SPECIES

Species observed

- None

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Some riparian woodland has moderate potential for yellow-breasted chat, yellow warbler, and Modesto song sparrow. No vernal pools (Mehrten) left - all graded or filled, or built on

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Black rail	No	No	Black rail site south of Roseville Reservoir - now developed (housing)
Chinook salmon	Yes	No	Creeks (Miners Ravine and Secret Ravine) unchannelized as far as observed and with riparian vegetation.
Vernal pool fairy shrimp	No	No	Developed
Chinook salmon	No	No	Creek not found, near Roseville Shopping Center possibly underground/development.
Grasshopper sparrow	No	No	Housing development at this site
Bogg's Lake hedge-hyssop	No	No	Housing development on Mehrten Formation

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High in riparian areas
- Fennel - Trace
- Italian thistle - Trace, urban habitats
- Tree-of-heaven - Moderate, at urban/freeway verge

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Red-shouldered hawk present

## **WATERSHED SUMMARY**

Watershed Name: Dry Creek

Watershed Number: 36

Survey Date(s): 3/12/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pleasant Grove, Rio Linda

Elevation Range (feet): Min: 30, Max: 112

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Vernal Pool Complex, Unidentified Crops, Irrigated Pasture, Rice
- Stream and associated swale wetlands and scattered willow in central south area
- Much Annual Grassland in south center area has been converted, apparently this year, to wheat - disked but not levelled, and reseeded; microtopography pools and swales still evident and ponded at date of survey
- Some patches of rush-dominated Seasonal Wetlands and one stand of Valley Oak Woodland with mature trees, no regeneration, on Palliday Road

### **Small-Patch Ecosystems**

- None

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, open Annual Grasslands/Vernal Pool Complex are dominant ecosystems

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Mostly private, agriculture; some Rural Residential to west and south

### **Land use history and types/levels of impacts**

- Most of the Annual Grassland is degraded, dominated by non-native plants, heavily grazed, some probably disked in past and is now long-term fallows. Larger area along Baseline Road has been recently converted to winter wheat
- Dyer Lane - rural road has trash dumped and graffiti

### **Other significant observations**

- None

## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, how?

What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Large area of Annual Grassland across south of watershed has been converted since photo to winterwheat

## SPECIAL-STATUS SPECIES

Species observed

- A pair of white-tailed kites, and a pair of Swainson's hawks observed in the northwest corner

Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Large areas of degraded Annual Grassland, & extensive pasture. Vernal Pool Complex. Agricultural Area  
Habitats - Rice, Pasture, Unidentified Crop, Row Crops

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Swainson's hawk	Yes	No	Few eucalyptus trees by rural residence - south off Baseline Road
Swainson's hawk	No access	No	No access

## INVASIVE NON-NATIVE SPECIES

Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - Low to Moderate on some roadsides

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- None

## **WATERSHED SUMMARY**

Watershed Name: Cirby Creek

Watershed Number: 37

Survey Date(s): 5/04/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Roseville, Citrus Heights

Elevation Range (feet): Min: 116, Max: 213

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Urban Suburban - dominates watershed approximately 85% of total area
- Some riparian remnants along Cirby Creek, Dry Creek, and Strap Ravine - mostly fenced, narrow but only moderately disturbed; mixed tree cover, including valley oak, Fremont cottonwood, and alder, with dense Himalayan blackberry in understory
- Small area of Valley Oak - mature trees, no regeneration - adjacent to confluence of Dry and Linda Creeks, undisturbed understory

### **Small-Patch Ecosystems**

- None

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat Urban area, Linda Creek and Strap Ravine run east to west and its tributary, Dry Creek, runs Northeast to Southwest

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Dense older urban housing, some neighborhoods with up to 40% tree cover

**Land use history and types/levels of impacts**

- Small urbanized creeks are only natural habitat remaining in this relatively small watershed

**Other significant observations**

- None

## **PROBLEMS WITH INTERPRETATION**

**Has the vegetation/land use changed since air photo taken? (Yes, No)**

- No

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- None

**SPECIAL-STATUS SPECIES**

**Species observed**

- None

**Suitable habitats for covered special-status species (Yes, No, List Habitats)**

- Yes. Streams for fish. Urban Suburban - dominates watershed. Some riparian remnants could support riparian obligates

**Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)**

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Chinook salmon	Yes	No	Several records in Dry Creek, Cirby Creek, and Strap Ravine - creeks retain riparian vegetation, and are moderately well shaded, generally unchanneled.

**INVASIVE NON-NATIVE SPECIES**

**Species observed + Level of Infestation (Trace/Low/Moderate/High)**

- Himalayan blackberry - High infestations: dense cover in riparian areas
- Fennel, Italian thistle, and catalpa - Trace at sample point on Dry Creek at Darling Way bridge

**ADDITIONAL COMMENTS**

**Add any relevant observations not covered above that describe features unique to this watershed**

- No access to most urban riparian corridors, suggesting they may be relatively undisturbed
- Several sports fields, and some small areas of disturbed annual grassland

## **WATERSHED SUMMARY**

Watershed Name: Linda Creek

Watershed Number: 38

Survey Date(s): 3/31/03

## **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Rocklin, Folsom, Citrus Heights

Elevation Range (feet): Min: 147, Max: 491

## **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types)**

- >10%: Urban/Suburban, Rural-Residential
- Some Urban Riparian Woodland along Strap Ravine - valley oak dominated, with some cottonwood and black willow, understory is sandbar willow and Himalayan blackberry
- Small patches of Mixed Oak Woodland are surrounded by housing, canopy contains blue, valley, and live oaks and some foothill pine
- City of Roseville Wetland Preserve Area. Mapped as Urban Wetland, linear complex of Fresh Emergent Marsh (cattail), Riparian Woodland (black willow/Himalayan blackberry, valley oak common), and small areas of open water; beaver dams and cut trees observed; water-hyacinth seen on open water section; managed for recreation and foot and cycle access
- Maidu Park has some dense Riparian Woodland
- Remnant Foothill Hardwood patches- blue oak dominated

### **Small-Patch Ecosystems**

- Some Landscape/Golf Course Ponds (less than 1 acre), managed

### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat urban area, two creeks run east to west: Strap Ravine and Linda Creek

## **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

**Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- Private, urban, densely developed
- Rollings Creek Golf Course has mature landscape trees, small lake

### **Land use history and types/levels of impacts**

- Older urban area

### **Other significant observations**

- None



## PROBLEMS WITH INTERPRETATION

Has the vegetation/land use changed since air photo taken? (Yes, No)

- Yes

If Yes, what has changed? (Indicate changes made to current mapping based on new observations if applicable)

- Added some Rural-Residential

## SPECIAL-STATUS SPECIES

### Species observed

- Western pond turtle in pond off Douglas Blvd (opposite Bushnell Nursery); Cooper's hawk - off Sierra College Blvd., at south

Suitable habitats for covered special-status species (Yes, No, List Habitats)

- Yes. Foothill Riparian habitats for yellow-breasted chat and yellow warbler. Urban/Suburban

Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Valley elderberry longhorn beetle	Yes (riparian vegetation)	No	Riparian and some oak woodland remain
California linderiella	unknown	No	Urban area
Tricolored blackbird	No	Yes	Pond surrounded by houses - no foraging habitat
Valley elderberry longhorn beetle (south)	Yes (rip)	No	Riparian remains - narrow strip surrounded by houses
Chinook salmon	Yes	No	Riparian and creek remain - no obstructions noted in this watershed

## INVASIVE NON-NATIVE SPECIES

### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Himalayan blackberry - High infestation: dense cover in riparian areas
- Pampas grass - Trace to Low in some riparian areas
- Yellow star-thistle - Low to High level of infestation in some disturbed grassland and roadsides
- Water hyacinth - one infestation (High level) observed on open water section of Linda Creek

## ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Golf course not visited - has large pond visible on air photo

## **WATERSHED SUMMARY**

Watershed Name: King Slough

Watershed Number: 39

Survey Date(s): 3/07/03

### **LOCATIONAL/ENVIRONMENTAL DESCRIPTION**

USGS 7.5' Quad(s): Pleasant Grove, Sheridan, Lincoln, Roseville

Elevation Range (feet): Min: 50, Max: 111

### **HABITAT/LAND COVER DESCRIPTION**

**Dominant PCWHR Large-Patch Ecosystems in order of relative abundance (>10% cover; also note any large areas of relatively undisturbed habitat; lower-level vegetation detail; any mixed/mosaic types).**

- >10%: Rice, Annual Grassland, Unidentified Croplands
- Large contiguous area of Annual Grassland to west of Lincoln Airport and north of Nicholas Rd

#### **Small-Patch Ecosystems**

- Stock Ponds (less than 1 acre)

#### **General Characterization (Main watershed, tributaries, slope, aspect)**

- Flat, with Auburn Ravine in central portion of watershed

### **LAND USES, IMPACTS, AND HABITAT QUALITY INDICATORS**

#### **Current land ownership and uses (percentage that is private/public, types of uses, type of infrastructure)**

- 99% Private; one parcel is federal land
- Agriculture is dominant land use - large areas of Rice; and Annual Grassland used for grazing

#### **Land use history and types/levels of impacts**

- Majority of the watershed is rice farming. Only two contiguous large patches of Annual Grassland remain in northeast and southeast of watershed

#### **Other significant observations**

- Relatively undisturbed Foothill Riparian habitat along Auburn Ravine, well-developed at eastern edge of watershed

### **PROBLEMS WITH INTERPRETATION**

#### **Has the vegetation/land use changed since air photo taken? (Yes, No)**

- Yes

If Yes, How, What has changed? (indicate changes made to current mapping based on new observations if applicable)

- Some areas mapped as Row Crops are Rice

### SPECIAL-STATUS SPECIES

#### Species observed

- Loggerhead shrike, northern harrier, red-shouldered hawk, tricolored blackbird - observed in field at Moore Rd and Canal Rd

#### Suitable habitats for covered special-status species (Y/N, List Habitats)

- Yes. Rice, Annual Grassland, Unidentified Croplands

#### Known Occurrences of Special-Status Species in the Watershed (from CNDDDB data and other sources)

Species	Habitat Present Yes/No	Species Observed Yes/No	Comments
Vernal pool fairy shrimp	Yes	No	Habitat at one occurrence – south of Moore Road at Canal Rd – has been converted to agriculture, only remaining natural habitat is on field edges and berms; Vernal Pool habitat at other occurrences appears to be unaltered and suitable
California linderiella	Yes	No	Habitat appears to be unaltered and suitable
Dwarf downingia	Yes	No	Habitat appears to be unaltered and suitable
Yellow-breasted chat	Yes	No	Habitat appears to be unaltered and suitable

### INVASIVE NON-NATIVE SPECIES

#### Species observed + Level of Infestation (Trace/Low/Moderate/High)

- Yellow star-thistle - high along some roadsides
- Medusa-head - moderate in Annual Grasslands
- Klamathweed - low occasionally on roadsides

### ADDITIONAL COMMENTS

Add any relevant observations not covered above that describe features unique to this watershed

- Row of large eucalyptus trees along north side of Moore Road west of Brewer Road.