

U.S. Fish & Wildlife Service

# Stone Lakes

*National Wildlife Refuge*





*From fall through  
spring, flocks of ducks,  
geese, sandpipers, and  
other migratory birds  
glide and dip on air  
currents as they land  
on refuge wetlands  
and grasslands.*



**Keeping the "wild" in the city**



Whether it's fall with flocks of geese landing in the wetlands and grasslands, or spring with warblers foraging in the tree-lined waterways, Stone Lakes National Wildlife Refuge (NWR) protects wildlife in the midst of an urban setting.

Just 12 miles from the state's capitol, Stone Lakes NWR has two large permanent lakes – North Stone Lake, and South Stone Lake. These large bodies of water serve as magnets for fish and wildlife in the northern Sacramento-San Joaquin River Delta. They are included in a vast network of seasonally flooded agricultural lands and natural and managed wetlands that provide feeding and resting habitat for thousands of birds migrating along the Pacific Flyway.

Area residents and public officials long recognized the need to protect these habitats from development and urbanization. To preserve this open space for wildlife Stone Lakes NWR was established in 1994, becoming the 505<sup>th</sup> refuge in the National Wildlife Refuge System. The Blue Goose logo at the left is the symbol of these national lands set aside for fish, wildlife and plant resources.



*Open water and associated woodland habitat.*

FWS



**Partners Make It Work**

*"Friends" assist and pass on their knowledge and inspiration to a new generation.*

The refuge's goals can not be accomplished alone. More than any other force, Stone Lakes was established and is being restored through partnerships. The staff has slowly built ties with other agencies, conservation groups and many of its farming neighbors. It receives strong support from its "Friends" group, the

Stone Lakes NWR Association.

It also works with partners on many special projects, such as becoming one of the National Audubon Society's Important Bird Areas, controlling upland weeds and water hyacinth, a non-native plant.



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*Partners volunteer for bird counts helping refuge staff at key times during the year.*

© Paul Boyte



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### A Rich History

The Plains Miwok originally inhabited this area, hunting, fishing and camping along the lakes' shores. Since there were no stones in the lakes, they baked mud into clay to make such necessities as fishing weights, cooking balls and ornaments. They constructed their homes from tules and wove intricate baskets from grasses growing along the waterways. Today, the refuge works with the modern-day Miwok to protect their cultural sites and provide native plants for traditional uses and environmental education.

### The Lakes

The lakes of the Stone Lakes Basin were historically much larger and teemed with wildlife. Tule elk, grizzly bear, and other wildlife were once so plentiful that nearby locations were named for them, such as Elk Grove, Badger Creek and Grizzly Island.

The lakes' names changed over time. Some believe Stone Lakes, the most recent name, came from local land-owner Rockwell Stone, a former Sacramento resident and well-known San Franciscan in the mid-1800s.

### Stone Lakes Basin

The Stone Lakes Basin is located in the Cosumnes and Mokelumne River watersheds and the Sacramento - San Joaquin River Delta. Floodwaters from these river systems and the 180-square mile Morrison Creek watershed replenish the basin's large lakes, wetlands and riparian streams during winter storms. Construction of the Sacramento River flood control

*Raccoons wading through water.*



*Tundra swans*

© Paul Boyte

system has reduced extensive flooding caused by heavy winter rains and spring thaws.

### The Railroad

In 1910 Southern Pacific built an elevated railroad line that simultaneously divided and interconnected the basin lakes. The fill for the elevated line came from a "borrow" channel that filled with water and formed a connection among the lakes. Pumps periodically drained the lakes, allowing the land to be cleared for cultivation. Today, this channel enables some tidal influence to extend northward from the Delta.

### Agriculture

Southern Sacramento County's agriculture has changed significantly in the last 15 years. It has shifted from grazing and corn, wheat and other grain crops that wildlife use to intensively cultivated vineyards and housing developments that have little value for wildlife. Even with all

*Downingia*



of these changes wildlife was still plentiful, providing an excellent opportunity to establish a national wildlife refuge to protect the remaining habitat for future generations.

© Paul Boyte



## Experience It



Any season is a great time to visit Stone Lakes. The wildlife and plants have adapted to the sudden abundance of spring vegetation, the penetrating heat of summer and the “tule” fog and floods of winter. Refuge access is limited, but increasing, as more land is protected and the recreational program grows.

### Fall

After months of no precipitation, rainfall and water pumped from waterways transform the landscape into flooded wetlands and wet meadows in time for the arrival of fall migrants.

Dunlins, black-bellied plovers and smaller sandpipers inhabit the shallow wetlands. The larger shorebirds, such as American avocets and greater yellowlegs, feed in deeper water, depending on the length of their bills and legs.

Mallards, green-winged teal and dozens of other waterfowl arrive, descending hundreds of birds at a time. Greater sandhill cranes also appear, foraging in the wetland pastures and croplands.



*Greater sandhill cranes*

© Paul Boyte

### Winter

#### *Mallards*



Flocks of greater white-fronted geese and Canada geese announce winter, filling the basin with their cackling and honking. Along with thousands of ducks, shorebirds and other waterbirds, they rest and feed on the seasonally flooded wetlands, grasslands and surrounding farmlands.



© Paul Boyte

*Great egret*

Egrets and herons join in the action, commuting back and forth to construct nests in their refuge rookeries in late winter.

The skies are also alive with birds of prey, from Swainson’s hawks to American kestrels. Flocks of white-crowned sparrows and goldfinches feed and find cover in old fields bordering the tree-lined waterways.



© Stan Bouisson

*Coyote*

Resident coyotes hunt the grasslands, river otters navigate slough waters and California ground squirrels search for forgotten seeds. Winter rain fills depressions in the grasslands called vernal pools. Moisture awakens tiny organisms, including endangered fairy and

tadpole shrimp, which will hatch in early spring.

Occasionally, prolonged winter storms flood the entire basin, stunning Interstate 5 travelers with a view of extensive wetlands brimming with waterfowl, reminiscent of how the area may have appeared a hundred years ago. Holding winter floodwater is good for the birds and provides flood protection for the Sacramento region — one of the purposes of the refuge.

*South Stone Lake with its associated marsh and riparian woodlands*

© Paul Boyte



© Paul Boyte



## Spring

Warmer weather evaporates water in the vernal pools, leaving colorful bands of goldfields, Downingias and other unique plants. As the pools dry up, fairy shrimp complete their life cycle, laying thousands of eggs that remain dormant in the soil until the rainy weather returns.



*Killdeer*

As the managed wetlands begin to dry, black-necked stilts, American avocets and other shorebirds use the nesting islands and abundant food. Green herons and American bitterns nest near ponds and lakes with dense stands of tules and cattails.

Trees and shrubs come alive with songbirds in hues of yellow, red and blue. Many migratory birds answer the ancient call to migrate to their northern breeding grounds.



*Western pond turtle*



*Great blue heron rookery*



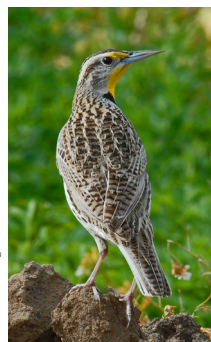
## Summer



*Red-winged Blackbird*

*American white pelicans*

Hérons, egrets, white pelicans and a few waterfowl remain through the summer on lakes where water is still abundant.



*Western Meadowlark*

Songbirds are numerous from ash-throated flycatchers and loggerhead shrikes to black headed grosbeaks and western meadowlarks.

Sheltered by the ground-level canopy of dried grasses, rodents, lizards and snakes travel a maze of hidden runways, retreating to their burrows to avoid the mid-day heat and predators. As the temperature climbs coyotes, black-tailed jack rabbits and other wildlife also limit their activity.

Insects – nature’s pollinators and recyclers – are also evident. Colorful beetles, butterflies and grasshoppers greet visitors along walking trails bordered by flowering elderberry shrubs, California hibiscus and sunflowers.



*Swallowtail butterfly*

*Honey bee gathering pollen on California rose*





### Restoration

Restoration programs are transforming land that once lay fallow, or was intensively farmed, into productive grasslands, wetlands and riparian habitat. Working together, volunteers, staff, school children and others have planted thousands of young valley oaks, cottonwoods and willows. Cattle feed on weeds and non-native grasses as part of a grazing program to bring back native vegetation and enhance grassland habitat that is, once again, attracting sandhill cranes, geese and shorebirds.



FWS

*School groups and volunteers planting native grasses.*

Looking at the refuge today, even from a passing vehicle, travelers see enhanced wetlands bordered by restored woodlands. The view was different in the early 1900s, when much of the area's riparian corridors (streamside forest) had vanished.

### Management Partners

To help bring about this change, the U.S. Fish and Wildlife Service (Service) worked with the community to identify a project area of 17,640 acres where it could cooperatively manage or acquire interest in land from willing sellers. To finance these efforts, the refuge has raised millions of dollars in private, state, and federal grants.



© Paul Boyte

*Long-billed dowitchers*

Today the refuge comprises over 6,000 acres. The Service owns or cooperatively manages these lands with several partners, including Sacramento County Department of Regional Parks, Recreation, and Open Space, Sacramento Regional County Sanitation District, and the California Departments Parks and Recreation, and Water Resources.



*Western Kingbird*  
© Paul Boyte



Since wildlife conservation is the primary mission of the National Wildlife Refuge System, the refuge strives to balance this with educational and recreational programs.

Refuge visitors enjoy the opportunity for wildlife viewing, photography and interpretation on the refuge. Future recreational activities will include trails, fishing, canoeing and kayaking, with special emphasis on youth and barrier-free access in development.

In the fall, Stone Lakes offers a small waterfowl hunting program, by reservation only, located on the Sun River Property near South Stone Lake. Please contact the refuge or check the website for current hunting information.

Special guided tours are frequently offered by refuge docents or staff. To find out more about visiting hours, tours and special events, call the refuge's recorded information line.

Construction began in mid-2005 on the new Blue Heron Trails visitor use area. It will provide the community and school groups with year-round access to trails and wetlands that are literally just minutes from Elk Grove!

The Blue Heron Trails site will focus on environmental education and native habitats. The former vineyard is being restored and managed as grasslands, seasonal wetlands, and riparian woodlands and will feature wildlife-friendly farming. It will provide school groups with hands-on experiences involving Central Valley habitat restoration. Many local community groups, partners and volunteers are contributing to this exciting effort.

## Recreational Opportunities

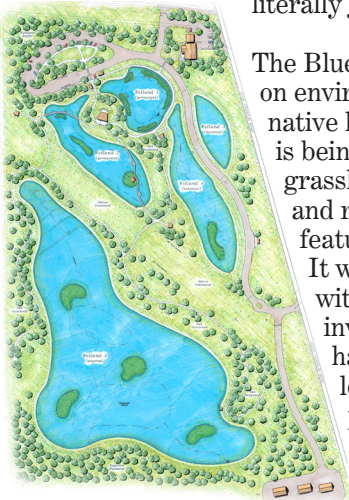


*Bird watchers*



*Refuge staff share wildlife knowledge.*

*A concept of the Blue Heron Trails visitor area.*



## Educational Programs

Stone Lakes offers environmental education programs and school tours, by reservation. Throughout the year, the refuge and its partners also host a variety of special events, from tree planting, weeding, and refuge cleanup to *Walk on the Wildside*, an outdoor festival on the refuge with exhibits, tours and children's activities every May.



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*Environmental education connects children with nature.*

## Come Prepared

The refuge is undeveloped. There are wildlife viewing areas and a portable restroom, but no drinking water.

Weather and other conditions can become extreme. Wear good walking shoes (waterproof during the rainy season), a hat and proper clothing for the weather.

Bring personal comfort items, such as sunscreen, insect repellent, water and allergy medicine.

## Viewing Tips



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*Male Kestrel viewed through a telephoto camera lens.*

Be patient. Move quietly and slowly. Remember, wild animals startle easily.

Respect "Closed Area" and "Marked Trail" signs. Stay in a group. Allow for periods of silence to let wildlife adjust to your presence.

Use binoculars, spotting scopes and your ears to help locate wildlife or get close-up views.

Use field guides to identify wildlife, their habits and habitats.

Look for wildlife where two habitat types meet, such as a pond and grassland. These edges provide the cover and forage frequently used by wildlife.

Look for tracks and scat along trails to identify species living in a habitat.



## Support It

### Make the Refuge Yours

For those who live in cities, the need to “reconnect” to nature is becoming stronger than ever. Reconnecting is not only the desire to smell the breeze, watch a bird fly or sit tranquilly by the water. For many, reconnecting means getting actively involved in preserving the natural world and making it better.

You can support Stone Lakes NWR through scouting and school projects or during family restoration days. You can become a volunteer and help with special events, guided tours, bird surveys, restoration, refuge cleanup, office duties and more.

You can also become involved in the Stone Lakes NWR Association and support many refuge activities.

For information, contact the refuge Monday through Friday, between 7:30 a.m. to 4:00 p.m.

### Students tour wetland



© Paul Boyte

“Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of physical or mental disability. For more information please contact the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240

### Nearby Natural Areas

The Yolo Bypass Wildlife Area is located north of the refuge, Cosumnes River Preserve is to the east and the Isenberg Crane Reserve is to the south. The Sacramento-San Joaquin River Delta is part of our western border.



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*Burrowing owl*

Sacramento National Wildlife Refuge Complex is along I-5 at Willows, north of Sacramento. There is a visitor center, interpretive trail and auto tour route for visitors to enjoy.





*Red-tailed hawk*

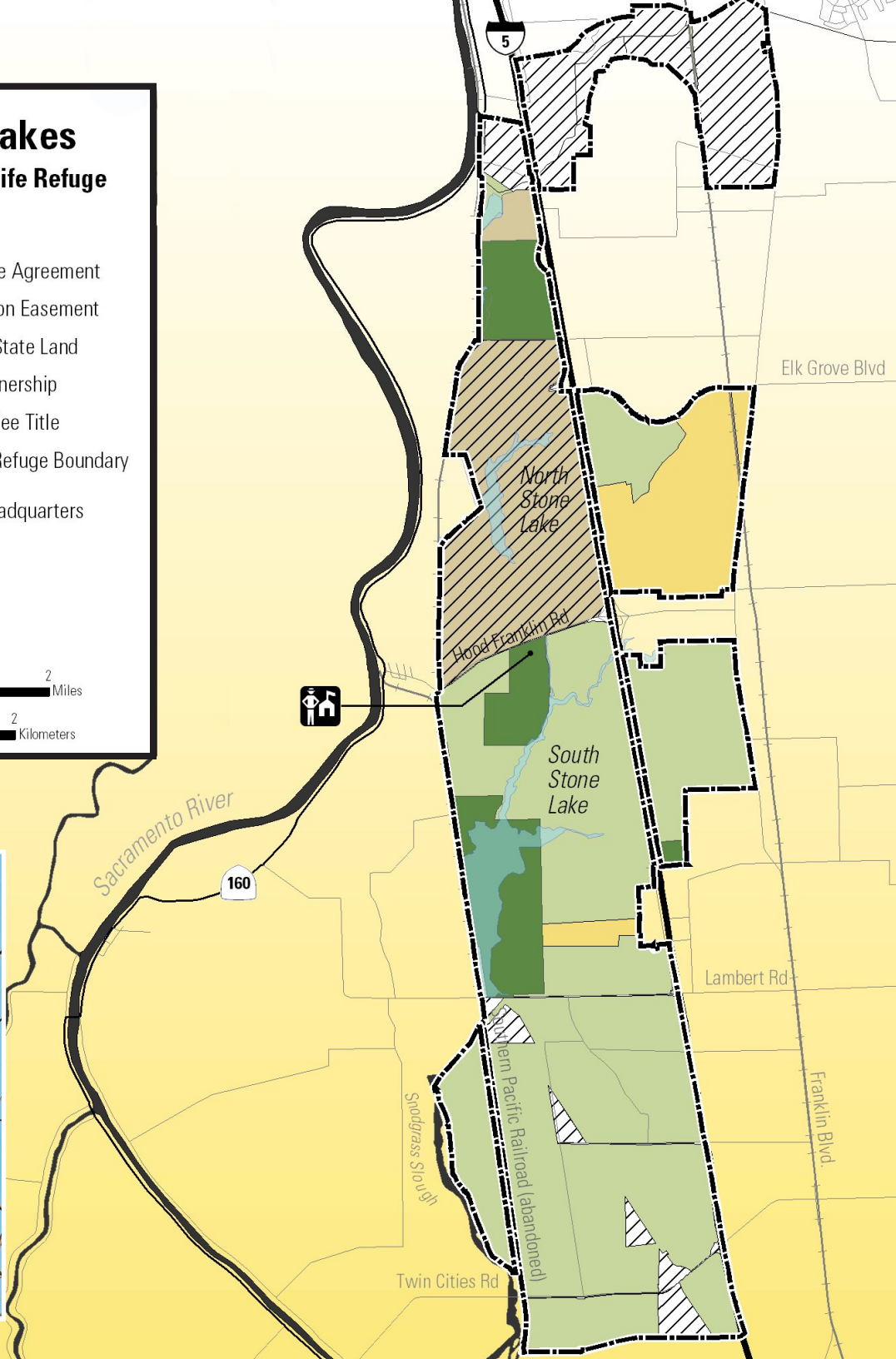
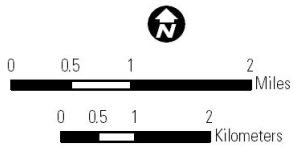
© Paul Boyte





# Stone Lakes National Wildlife Refuge

-  Cooperative Agreement
-  Conservation Easement
-  County or State Land
-  Private Ownership
-  Owned in Fee Title
-  Approved Refuge Boundary
-  Refuge Headquarters



*Female Kestrel*





**Stone Lakes  
National Wildlife Refuge  
1624 Hood-Franklin Road  
Elk Grove, CA 95757  
916/775 4420 phone  
916/775 4407 fax  
[www.fws.gov/stonelakes](http://www.fws.gov/stonelakes)**

**U.S. Fish & Wildlife Service  
<http://www.fws.gov>**

**For Refuge Information  
1 800/344-WILD**

**California Relay Service  
TTY 1 800/735-2929  
Voice 1 800/735-2922**

**This brochure will be made  
available in other formats  
upon request.**

**August 2009**

