SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT

WATERFOWL HUNTING PROGRAM
STONE LAKES NATIONAL WILDLIFE REFUGE

April 2007

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U.S. Fish and Wildlife Service
1624 Hood-Franklin Road
Elk Grove, California 95757

Under the Authority of the
Fish and Wildlife Act of 1956
National Wildlife Refuge System Administration Act of 1966
National Wildlife Refuge System Improvement Act of 1997

Section I: PURPOSE AND NEED FOR ACTION

Introduction

This Supplement was prepared as a result of the Fund for Animals lawsuit against the U.S. Fish and Wildlife Service (Service) on March 14, 2003, alleging noncompliance with the National Environmental Policy Act (NEPA) in opening 37 refuges to hunting during the 1997-98 through 2002-03 seasons. On August 31, 2006, the U.S. District Court Judge granted plaintiff's motion for summary judgment agreeing that the Service did not adequately consider the cumulative impacts of opening these refuges to hunting. The Service's October 5, 2006 brief asked the court not to enjoin the hunt programs while the Service proceeded to address the NEPA deficiencies in the original 37 hunting packages. In addition, the Service informed the court that by May 30, 2007, it would also correct NEPA deficiencies for the refuges opened to hunting since the lawsuit was filed, including Stone lakes National Wildlife Refuge.

This Supplemental Environmental Assessment (EA) to the Final Environmental Assessment for the waterfowl hunting program (Final EA) at Stone Lakes National Wildlife Refuge (NWR or Refuge) completed in January 2005 expands upon the assessment of direct, indirect and cumulative impacts of the hunting program that was described in the Final EA (see attached).

Section IV. ENVIRONMENTAL CONSEQUENCES

A. Anticipated Direct and Indirect Impacts of Proposed Hunt on Wildlife Species.

Resident Wildlife: The proposed hunt is limited to the hunting of migratory waterfowl which include ducks, geese and coots. Resident species are listed in Appendix C of the Final Stone Lakes NWR Comprehensive Conservation Plan (USFWS 2007). Except for some species of birds and migratory bats, butterflies and moths, resident species have very limited home ranges and hunting would not affect their populations regionally, therefore only local effects will be discussed. The impact to any of these resident wildlife species would be minimal to nonexistent because they are not being hunted, and the migratory waterfowl hunting would occur only two to three days per week until noon, and only occur on about 15% percent of the Refuge (912 out of 6,069 acres). Furthermore, not all wetland units are hunted on any given day, therefore foraging areas would always be available within the South Stone Lake Unit.

Furbearers may be disturbed if they are foraging in the hunted wetlands. But Refuge staff rarely encounters these animals in the seasonal wetlands or the shallow lake where hunting occurs. Raptors including red tailed hawks, red shouldered hawks and white tailed kites may also be displaced temporarily during hunt days. Raptors have been observed in the trees within a few hundred feet of wetland units where hunting is occurring (Treiterer, Pers. Comm.). Other upland dwelling wildlife such as deer, turkey, quail, pheasant and songbirds are not hunted and could be flushed temporarily. Reptiles and amphibians are dormant and in burrows during the hunting season, and are unlikely

to be affected. Fish or other invertebrates are unlikely to be affected due to the location and season of hunting.

To further minimize any impacts to non-hunted species, hunters are met each morning at the check station and provided information about minimizing their potential impact on non-target wildlife. No adverse impacts are expected from dogs used for retrieval of waterfowl because they will be under the control of their owners at all times.

Migratory Species: The Service annually prescribes frameworks, or outer limits, for dates and times when hunting may occur and the number of birds that may be taken and possessed. These frameworks are necessary to allow State selections of season and limits for recreation and sustenance; to aid Federal, State, and tribal governments in the management of migratory game birds; and to permit harvests at levels compatible with population status and habitat conditions. Because the Migratory Bird Treaty Act stipulates that all hunting seasons for migratory game birds are closed unless specifically opened by the Secretary of the Department of the Interior, the Service annually promulgates regulations (50 CFR Part 20) establishing the frameworks from which states may select season dates, bag limits, shooting hours, and other options for each migratory bird hunting season. The frameworks are essentially permissive in that hunting of migratory birds would not be permitted without them. Thus, in effect, Federal annual regulations both allow and limit the hunting of migratory birds.

Migratory game birds are those bird species so designated in conventions between the United States and several foreign nations for the protection and management of these birds. Under the Migratory Bird Treaty Act (16 U.S.C. 703-712), the Secretary of the Department of the Interior is authorized to determine when "…hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any ... bird, or any part, nest, or egg…" of migratory game birds can take place, and to adopt regulations for this purpose. These regulations are written after giving due regard to "…the zones of temperature and to the distribution, abundance, economic value, breeding habits, and times and lines of migratory flight of such birds, and are updated annually… (16 U.S.C. 704[a]). The Service has been delegated as the lead Federal agency for managing and conserving migratory birds in the United States. Acknowledging regional differences in hunting conditions, the Service has administratively divided the nation into four Flyways for the primary purpose of managing migratory game birds. Each Flyway (Atlantic, Mississippi, Central, and Pacific) has a Flyway Council, a formal organization generally composed of one member from each State and Province in that Flyway. Stone Lakes NWR is within the Pacific Flyway.

The process for adopting migratory game bird hunting regulations, located in 50 CFR part 20, is constrained by three primary factors. Legal and administrative considerations dictate how long the rule making process will last. Most importantly, however, the biological cycle of migratory game birds controls the timing of data-gathering activities and thus the dates on which these results are available for consideration and deliberation. The process of adopting migratory game bird hunting regulations includes two separate regulations-development schedules, based on "early" and "late" hunting season

regulations. Early hunting seasons pertain to all migratory game bird species in Alaska, Hawaii, Puerto Rico, and the Virgin Islands; migratory game birds other than waterfowl (e.g. dove, woodcock, etc.); and special early waterfowl seasons, such as teal or resident Canada geese. Early hunting seasons generally begin prior to October 1. Late hunting seasons generally start on or after October 1 and include most waterfowl seasons not already established. There are basically no differences in the processes for establishing either early or late hunting seasons. For each cycle, Service biologists and other experts gather, analyze, and interpret biological survey data and provide this information to all those involved in the process through a series of published status reports and presentations to Flyway Councils and other interested parties (USFWS 2006a). Under the proposed action, the Refuge estimates an additional 250-300 ducks, and 15-25 geese (e.g. Canada, white-fronted, Ross' and snow) would be harvested. This harvest impact represents <0.01% of California's average harvest of 1,327,200 ducks, and 146,900 geese harvested in 2005 (USFWS 2006b).

The Service undertakes a number of surveys throughout the year in conjunction with the Canadian Wildlife Service, State and Provincial wildlife-management agencies, and others because the Service is required to take abundance of migratory birds and other factors in to consideration. To determine the appropriate frameworks for each species, the Service considers factors such as population size and trend, geographical distribution, annual breeding effort, the condition of breeding and wintering habitat, the number of hunters, and the anticipated harvest. After frameworks are established for season lengths, bag limits, and areas for migratory game bird hunting, migratory game bird management becomes a cooperative effort of State and Federal Governments. After Service establishment of final frameworks for hunting seasons, the States may select season dates, bag limits, and other regulatory options for the hunting seasons. States may always be more conservative in their selections than the Federal frameworks but never more liberal. Season dates and bag limits for National Wildlife Refuges open to hunting are never longer or larger than the State regulations. In fact, based upon the findings of an environmental assessment developed when a National Wildlife Refuge opens a new hunting activity, season dates and bag limits may be more restrictive than the State allows. The Refuge season length is more restrictive for waterfowl hunting than the State allows.

The NEPA considerations by the Service for hunted migratory game bird species are addressed by the programmatic document, ''Final Supplemental Environmental Impact Statement: Issuance of Annual Regulations Permitting the Sport Hunting of Migratory Birds (FSES 88– 14),'' filed with the Environmental Protection Agency on June 9, 1988. We published Notice of Availability in the Federal Register on June 16, 1988 (53 FR 22582), and our Record of Decision on August 18, 1988 (53 FR 31341). Annual NEPA considerations for waterfowl hunting frameworks are covered under a separate Environmental Assessment, "Duck Hunting Regulations for 2006-07," and an August 24, 2006, Finding of No Significant Impact. Further, in a notice published in the September 8, 2005, Federal Register (70 FR 53376), the Service announced its intent to develop a new Supplemental Environmental Impact Statement for the migratory bird hunting program. Public scoping meetings were held in the spring of 2006, as announced in a

March 9, 2006, Federal Register notice (71 FR 12216). More information may be obtained from: Chief, Division of Migratory Bird Management, U.S. Fish and Wildlife Service, Department of the Interior, MS MBSP-4107-ARLSQ, 1849 C Street, NWR, Washington, DC 20240.

The proposed hunt at the Refuge would include the harvest of approximately 275-340 waterfowl, including the following species: wood duck, mallard, gadwall, American wigeon, northern pintail, northern shoveler, redhead, canvasback, scaup species, ring necked duck, ruddy duck, teal species, Canada goose, white fronted goose, snow goose, Ross' goose and American coot. The following table shows the likely distribution of harvested species:

Waterfowl Species	**% Distribution**
Dabblers	
Mallard	30
Northern Shoveler	12
Wood Duck	12
Teal species (Green winged, Cinnamon)	12
Gadwall	5
American Wigeon	5
Northern Pintail	<1
Divers	
Ring-Necked Duck	8
Merganser Species	3
Canvasback	2
Common Goldeneye	1
Scaup Species	<1
Redhead	<1
Other	
Canada Geese	5
Other Geese Species	<1
American Coot	5
Total	**100%**

Local, Regional and Flyway Impacts: The impacts of the Refuge waterfowl hunt program on the overall populations of waterfowl at a local, regional and flyway level would be minimal to nonexistent. Impacts to local populations of birds would be limited to locally breeding wood ducks. The harvest of 30 wood ducks represents <0.001% of the wood ducks harvested statewide. Again, to determine the appropriate frameworks for each species, the Service considers factors such as population size and trend, geographical distribution, annual breeding effort, the condition of breeding and wintering habitat, the number of hunters, and the anticipated harvest. We anticipate no significant regional or flyway impacts to waterfowl populations because of the small size of the Refuge hunting program (an area of 15% of the total Refuge), the harvest rates of waterfowl (250-300 ducks, and 15-25 geese) and limited days and times of the hunt (2-3 days per week for ½

day). The harvest numbers represent <0.001% of California's average harvest of 1,327,200 ducks, and 146,900 geese in 2005 (USFWS 2006b).

Non-hunted Migratory Species: Non-hunted migratory species that occur on the Refuge during the hunting season include shorebirds, songbirds, sandhill cranes, burrowing owls and bats. Impacts to these species would be limited to occasional flushing of birds as hunters move into and out of hunting areas. The small number of hunters, small size of the area opens to hunting, in addition to the limited days and hours of the hunt reduce the impact to minimal or none depending on the species.

Displacement of larger shorebirds (e.g. greater yellowlegs, black-necked stilts, curlew and ibis) that are feeding or loafing in the seasonal wetland units may occur when hunters are entering or leaving the blinds. This disturbance would have minimal impact on the birds because additional non-hunted wetlands are available nearby. Staff observations indicate these birds often move to the other side of a wetland or to an adjacent wetland if disturbed. Some flushing of songbirds may occur as hunters are walking on roads and levees to return to the check station. Overall, the impact to wintering songbirds would be limited to disturbance while birds are foraging.

Greater sandhill cranes have been recorded roosting, loafing, and feeding throughout the Refuge and on the South Stone Lake Unit (Sun River property) from September through February, which generally coincides with the waterfowl hunting season. The area open to hunting, number of days hunting would occur and times of day are intended to minimize disturbance to cranes. Cranes roost in seasonal wetlands at night, leaving before dawn to feed in surrounding agricultural fields and return to the irrigated pastures around noon (G. Ivey, pers. comm.). Refuge staff would continue to monitor the cranes' response to hunting and would modify the hunting program as appropriate. No incidences of cranes flushing from seasonal wetlands were reported in 2005 or 2006.

Burrowing owls have been recorded on the North Stone Lake and Headquarters units of the Refuge, but not the South Stone Lake Unit. These birds are found in burrows in grasslands and therefore would not be impacted by the waterfowl hunt program.

Endangered Species: The only federally-listed species that may be present on the Refuge during the waterfowl hunting season is the federally threatened, giant garter snake. Because hunting would occur during the dormant period when snakes are occupying below-ground hibernacula, no adverse impacts should occur to this species from the hunting program (see EA Appendix A – Informal Section 7 Consultation under the Endangered Species Act). As part of a programmatic Intra-Service Section 7 consultation regarding Refuge operations that was prepared for the Comprehensive Conservation Plan (CCP) (USFWS 2007), the Service addressed the potential effects of routine habitat restoration and management and maintenance activities related to the proposed hunting program. As funding and staff are available, surveys will be conducted for giant garter snakes to better ascertain the status of the species on the Refuge. Depending on the results of biological monitoring, modifications to hunting related maintenance (e.g. blinds, levees, etc.) may be implemented as appropriate.

B. Anticipated Direct and Indirect Impacts of Proposed Action on Refuge Programs, Facilities, and Cultural Resources.

Other Refuge Wildlife-Dependent Recreation: Public use levels are expected to expand over time, as additional infrastructure is added and the Refuge's land base increases. This may result in unanticipated conflicts between user groups. Experience has proven that time and space zoning (e.g., establishment of separate use areas, use periods, and restrictions on the number of users) is an effective tool in eliminating conflicts between user groups. Currently, no other public uses will be allowed during the hunting season on the South Stone Lake Unit, so that hunting will not conflict with other Refuge wildlife-dependent recreation programs including wildlife observation, wildlife photography, wildlife interpretation, environmental education or fishing. These other types of wildlife dependent recreation will be offered on other units of the Refuge.

The CCP describes proposed visitor services to be developed on the Refuge over the next 15 years. Hunting was specifically proposed on the South Stone Lake Unit because the area has a history of waterfowl hunting since the 1920's and is most suitable for a hunt program in terms of distance from urban areas, quality of habitats and existing infrastructure. Additional proposed visitor services for the South Stone Lake Unit include non-motorized boating in South Stone Lake, fishing from boats, a wildlife viewing trail and a boardwalk. These proposed uses would not overlap with the hunting season and therefore no conflicts with other existing or proposed wildlife-dependent recreation are anticipated.

Refuge Facilities: The proposed hunt will have no impacts upon refuge roads and trails beyond the routine maintenance required annually. Hunters access the Refuge through a gravel trail and park on a gravel parking lot. They then walk to the blinds, reducing impacts to trails and non graveled roads. Only disabled hunters can drive closer to the blinds, but again the road is graveled and no additional impacts are anticipated. The waterfowl hunts are cancelled if the area floods for safety and to reduce impacts of vehicles on roads.

Cultural Resources: Hunting, regardless of method or species targeted, is a consumptive activity that does not pose any threat to historic properties on and/or near the Refuge. In fact, hunting meets only one of the two criteria used to identify an "undertaking" that triggers a Federal agency's need to comply with Section 106 of the National Historic Preservation Act. These criteria, which are delineated in 36 CFR Part 800, state:

> 1- …an undertaking is any project, activity, or program that can alter the character or use of an archaeological or historic site located within the "area of potential effect;" and
> 2- …the project, activity, or program must also be either funded, sponsored, performed, licenses, or have received assistance from the agency.

All prehistoric or historic sites near South Stone Lake would continue to be protected. One cultural resource site that is located on the South Stone Lake Unit (Sun River

property) (CA-SAC-145) does not occur within the hunting area. Therefore the proposed hunt will not have any direct or indirect impacts on cultural resources.

C. Anticipated Impacts of Proposed Hunt on Refuge Environment and Community

The Refuge anticipates little to no impacts of the proposed action on the Refuge environment which consists of soils, vegetation, air quality, water quality and solitude. Some disturbance to surface soils and vegetation would occur in areas selected for hunting; however impacts would be minimal to nonexistent.

The Refuge expects impacts to air and water quality to be minimal and only due to refuge visitors' automobiles emissions. The effect of these refuge-related activities, as well as other management activities, on overall air and water quality in the region are anticipated to be negligible, compared to the contributions of industrial centers, power plants, and non-refuge vehicle traffic. Existing State water quality criteria and use classifications are adequate to achieve desired on-refuge conditions; thus, implementation of the proposed action would not impact adjacent landowners or users beyond the constraints already implemented under existing State standards and laws.

Impacts associated with solitude are expected to be minimal given time and space zone management techniques, such as seasonal access and area closures, used to avoid conflicts among user groups. Other impacts to the local community are described in the original Environmental Assessment (Page 12), none of which were found to be significant.

D. Other Past, Present, Proposed, and Reasonably foreseeable Hunts and Anticipated Impacts

Cumulative effects on the environment result from incremental effects of a proposed action when these are added to other past, present, and reasonably foreseeable future actions. While cumulative effects may result from individually minor actions, they may, viewed as a whole, become substantial over time.

The proposed hunt plan has been designed to be sustainable through time given relatively stable conditions. The hunting season, bag limits, etc. may increase or decrease over time, based on overall waterfowl populations as determined by the Service. The Refuge would continue to abide by all Federal and State waterfowl hunting regulations. The CCP will be revised in 2022, along with the existing hunting program.

Hunting was specifically located on the South Stone Lake Unit because the area has a history of waterfowl hunting since the 1920's and is most suitable for a hunt program in terms of distance from urban areas, quality of habitats and existing infrastructure. Expansion of the hunt program would only occur if additional adjacent lands were acquired. This would likely require a new environmental assessment. Significant changes to the land use surrounding the South Stone Lake Unit is not anticipated at this time.

E. Anticipated Impacts if Individual Hunts are Allowed to Accumulate

National Wildlife Refuges, including Stone Lakes NWR, conduct hunting programs within the framework of State and Federal regulations. The Refuge waterfowl hunt program is more restrictive than the State of California requires. By maintaining hunting regulations that are as, or more restrictive than the State, individual refuges ensure that they are maintaining seasons which are supportive of management on a more regional basis. The proposed hunt plan has been reviewed and is supported by the California Department of Fish and Game (CDFG). Additionally, refuges coordinate with CDFG annually to maintain regulations and programs that are consistent with the State management program.

Through analysis presented in the Final EA (USFWS 2005a), the Waterfowl Hunt Plan (USFWS 2005b), this EA, and the previously referenced documents, the Service has concluded that there will be no significant cumulative impacts on the Refuge's wildlife populations, either hunted or non-hunted species.

The Service has also concluded that the proposed action will not cumulatively impact the Refuge environment or Refuge programs. This determination was based upon a careful analysis of potential environmental impacts of hunting on the Refuge together with other projects and/or actions. Hunting is an appropriate wildlife management tool that can be used to manage wildlife populations. Some wildlife disturbance will occur during the hunting seasons. Proper zoning, regulations, and Refuge seasons will be designated to minimize any negative impacts to wildlife populations using the Refuge.

Public comments received and the Service's response to those comments can be found in Appendix 1, Response to Public Comments.

References

U.S. Fish and Wildlife Service. 2004. Waterfowl Harvests and Status, Hunter Participation and Success, and Certain Hunting Regulations in the Pacific Flyway and United States. U.S. Department of the Interior, Washington, D.C. U.S.A.

U.S. Fish and Wildlife Service. 2005a. Final Environmental Assessment, Waterfowl Hunting Program, Stone Lakes National Wildlife Refuge, Elk Grove, CA

U.S. Fish and Wildlife Service. 2005b. Waterfowl Hunt Plan, Stone Lakes National Wildlife Refuge. Sacramento County, CA

U.S. Fish and Wildlife Service. 2006a. Migratory bird hunting activity and harvest during the 2004 and 2005 hunting seasons: Preliminary estimates. U.S. Department of the Interior, Washington, D.C. U.S.A.

U.S. Fish and Wildlife Service. 2006b. Waterfowl population status, 2006. Division of Migratory Bird Management, Laurel, Maryland, 60 pp.

U.S. Fish and Wildlife Service. 2007. Stone Lakes National Wildlife Refuge Comprehensive Conservation Plan. California Nevada Operations Refuge Planning Office, Sacramento, CA

Appendix
Response to Public Comments

We received nine comments on our draft Supplemental Environmental Assessment entitled "Waterfowl Hunting Program, Stone Lakes National Wildlife Refuge", that was available for public comment from March 10th to April 9th, 2007. Eight of these comments were in support of the Service's selected Alternative in the draft EA. One comment was in opposition to the selected Alternative.

The public comment period began March 10, 2007 with a legal notice placed in the Sacramento Bee and Laguna Neighbor newspapers. A notification letter was sent to the entire Refuge CCP mailing list including over 311 individuals, organizations, and agencies. In addition, the notification and Draft Supplement were added to the Refuge's website (http://www.fws.gov/stonelakes.htm). All requests (6) for copies of the Draft Supplement were sent electronically via email or hard copy via mail.

We received a letter from the Safari Club International that was in support of the preferred Alternative, but had some comments that are addressed below.

Comment: "*…SCIF suggest that the authors fail to address some of the beneficial ramifications of the hunt. For example, the draft EA could note that hunted species and other wildlife may compete for habitat and that while each species occupies a unique position and role in its ecosystem, there is only a finite amount of space available to satisfy various habitat requirements of water food, cover, breeding, roosting and fawning areas. SCI and SCIF suggest that the authors of the EA consider whether hunting of ducks, geese and coots controls the populations of the species to the extent that it reduces pressure on habitat to allow for the presence of other, non-hunted species."*

Service Response: As stated in the 2006 Supplemental EA the Refuge estimates an additional 250-300 ducks, and 15-25 geese (e.g. Canada, white-fronted, Ross' and snow) would be harvested annually. This harvest impact represents <0.01% of California's average harvest of 1,327,200 ducks, and 146,900 geese harvested in 2005 and a fraction of the total populations for the various species. Therefore the harvest would have no impact on reducing competition for resources in wetland habitats with other species.

Comment: *"…Similarly, the authors make no mention of the fact that hunting of Canada geese, a particularly aggressive species, provides a population management/reduction tool that is enabling other refuges to control this potentially destructive species."*

Service Response: Again, the low harvest numbers would have little to no impact on the local population of Canada geese. Although the harvest of these geese could increase as the area becomes more urbanized and Canada geese populations increase. Waterfowl surveys have not documented any overbrowsing by Canada geese or other detrimental impacts to wetlands or uplands.

Comment: *"…We recommend that, in addition to noting the state's concurrence with the hunting program, that the draft EA includes the state agency's input about how hunting on the refuge assists with and/or is an element of the state's efforts to manage state wildlife populations."*

Service Response: The California Department of Fish and Game was given an opportunity to provide input to this supplemental EA. The State annually assesses its Migratory Bird Hunting Program in an Environmental Impact Report. The Stone Lakes NWR hunting program contributes a small portion to the overall management of waterfowl in California.

Comment: *"…We recommend that the FWS add to its cumulative analysis an explanation of how the control and/or reduction of hunted populations, considered collectively with similar wildlife management efforts on numerous refuges throughout the National Wildlife Refuge system, conserves the cumulative health of the habitat of the flyway in which the refuge is located and the migratory birds that utilize that flyway..."*

Service Response: This comment is not specific to this draft EA and is noted but not responded to here.

Another letter of support had this additional comment:

Comment: "I would like to see the wetlands managed more for moist-soil plants with areas for waterfowl and shorebirds to feed, something akin to the wetland management on the Sacramento National Wildlife Refuge Complex."

Service Response: Regarding moist soil management, that is our goal on the Sun River Unit. We completed a new water delivery system last summer that should allow us to better manage floodups and drawdowns. We also flooded twice in 2006 which limited our capabilities to draw down as scheduled.

Comments Not Specific to Stone lakes Supplemental EA

We received a letter from the Humane Society of the United States that contained comments related to hunting on the National Wildlife Refuge System as a whole and containing elements related to litigation filed in 2003 by the Fund for Animals against the Service. These comments were not specific to this draft EA and are noted but not responded to here.

List of People and Organizations that Provided Comments

Organization	***Signature***
Humane Society of the United States	Andrew Page & Lauren Nolfo-Clements
Safari Club International,	Ralph S. Cunningham
Safari Club International Foundation	" "
California Outdoor Heritage Alliance	Mark Hennelly

General Public
Rick Schussel
Ray Brown
Nadine Muench
Allan P. Donnelly
Cliff Feldheim
Larry E. Fry