

U. S. Department of the Interior
Fish and Wildlife Service
California/Nevada Refuge Planning Office

FINDING OF NO SIGNIFICANT IMPACT

**Environmental Assessment for Management of
Sacramento River National Wildlife Refuge**
Tehama, Butte, Glenn and Colusa Counties, California

The U.S. Fish and Wildlife Service (Service) has completed the Comprehensive Conservation Plan (CCP) and the Environmental Assessment (EA) for Sacramento River National Wildlife Refuge (Refuge). The CCP will guide Refuge management for the next 15 years. The CCP and EA (herein incorporated by reference) describe the Service's proposals for managing the Refuge and their associated effects on the human environment under three alternatives, including the no action alternative.

Decision

Following comprehensive review and analysis, the Service selected Alternative B for implementation because it is the alternative that best meets the following criteria:

- Achieves the mission of the National Wildlife Refuge System.
- Achieves the purposes of the Sacramento River National Wildlife Refuge.
- Will be able to achieve the Service's vision and goals for the Refuge.
- Maintains and restores the ecological integrity of the habitats and populations on the Refuge.
- Addresses the important issues identified during the scoping process.
- Addresses the legal mandates of the Service and the Refuge.
- Is consistent with the scientific principles of sound fish and wildlife management and endangered species recovery.
- Facilitates priority public uses which are compatible with the Refuge purposes and the Refuge System mission.

Alternative Considered

Following is a brief description of the alternatives for managing Sacramento River Refuge, including the selected plan (Alternative B). For a complete description of each alternative, see the draft EA.

Alternative A

Under the No Action Alternative, the Refuge would continue to be managed as it has in the recent past. The Refuge currently has no unit-wide management plan. Recent management has followed existing step-down management plans:

- Environmental Assessment for Proposed Restoration
Activities on Sacramento River National Wildlife Refuge
- Fire Management Plan for Sacramento River National
Wildlife Refuge

- Annual Habitat Management Plan for Sacramento River National Wildlife Refuge
- Cultural Resource Overview and Management Plan

The focus of the Refuge would remain the same: to provide habitat and maintain current active management practices; restore the 9 units identified in the Environmental Assessment for Proposed Restoration Activities on Sacramento River National Wildlife Refuge (USFWS 2002) for threatened and endangered species, migratory and resident birds, and other wildlife. The Refuge would remain closed to visitor services other than the limited existing opportunities for fishing at Packer Lake. Current staffing and funding levels would remain the same.

This Alternative was not selected for implementation because it does not include needed improvements for habitat restoration, for management of migratory birds and special status species and it does not accommodate the growing demand for wildlife-dependant recreation.

Alternative B (Selected Plan)

Under Alternative B, the Refuge would use active and passive management practices to achieve and maintain full restoration/enhancement of all units where appropriate, as funding becomes available. The agricultural program would be phased out as restoration funding becomes available. The Refuge would employ both cultivated and natural recruitment restoration techniques as determined by site conditions. Public Use opportunities would be optimized to allow for a balance of Big 6 wildlife-dependant public uses (hunting, fishing, wildlife observation and photography, environmental education, and interpretation) throughout the entire Refuge river reach in coordination with other agencies and programs. Staffing and funding levels would need to increase to implement this alternative.

The Service would manage migratory birds threatened and endangered species the same as under Alternative A. However, the Refuge would prepare a surveying and monitoring plan for special status species, and substantially expand research on the ecology and management of special status species. Special regulations and temporary closures would be instituted for the protection of wildlife species and their habitats during critical periods of their life cycles. In cooperation with partners, the Refuge would continue to monitor restoration projects, avian bird populations, migratory waterfowl and other wildlife. The Refuge would develop and implement a long-term monitoring program to assess the success of current management and restoration activities.

Under Alternative B, the Service would improve and expand visitor services with a focus on a balance of Big 6 wildlife-dependent public use opportunities distributed throughout the entire Refuge. New visitor services projects under this alternative include: developing interpretive kiosks, creating a new refuge brochure, and constructing walking trails and parking facilities on vehicle accessible units. Hunting opportunities would increase under

Alternative B. Approximately 52 percent of the Refuge would be opened to hunting of dove, waterfowl, coot, common moorhen, pheasant, quail, snipe, turkey and deer. Hunting will be limited to shotgun or archery only. Twenty-three riverbank miles and seasonally submerged areas would be opened to sport fishing consistent with State regulations. Camping would be allowed on gravels bars below the ordinary high water mark.

This alternative was selected for implementation because it includes needed improvements in migratory bird and special status species management and makes an important contribution to regional biodiversity. It also provides a balanced mix of compatible wildlife-dependant recreation opportunities to meet the growing demand in the region. Implementation of this alternative will require additional staff and funding.

Alternative C

The Refuge would use active and passive management practices to achieve and maintain full restoration of all units under Alternative C. The agricultural program would cease immediately and remaining orchards would be removed. Restoration of these sites would be implemented as funding becomes available. Additional NEPA compliance documents may be needed depending on the size and scope of the restoration activities. Management and restoration of riparian habitats, threatened and endangered species and cultural resources would be the same as Alternative B.

Public use opportunities would be maximized to allow for all Big 6 wildlife-dependent public uses throughout the majority of the Refuge. In addition, staffing and funding levels would need to increase substantially to implement the alternative. Hunting opportunities would increase to 69 percent of the Refuge. Hunting would be allowed on most of the units open to the public. The Service would manage the hunting, fishing, wildlife observation, photography, environmental education and interpretation programs similar to Alternative B.

Alternative C was not selected for implementation because of the negative effects of the immediate removal of agriculture from the Refuge. These negative effects include the loss of funding for restoration activities, the potential for non-native or invasive plant species to invade these units which may impact biodiversity, unmanaged pests that may impact adjacent landowners and agricultural operations, and the abrupt impact on the local economy. Lastly, the topic of hunting dominated the comments received on the Draft CCP. Although the majority of the comments received were in favor of hunting, a great deal were against hunting. By opening 69 percent of the Refuge to hunting, more contact between hunters and other visitors may lead to increased competition for recreation space.

Effects of management of the Refuge in the human environment

As described in the EA, implementing the selected alternative will have no significant impacts on any of the environmental resources identified in the EA. A summary of the impacts analysis and conclusions follows:

Soils

The overall effect on soils from implementation of the selected alternative is negligible. The surface erosion potential is low, and because restoration site preparation activities would be conducted in small increments, any temporary increase in erosion and sedimentation rates resulting from the project would likely be minor. Any temporary increase in erosion and sedimentation rates would be offset by the substantial long-term reduction in erosion and sedimentation rates that would result from taking the Refuge units out of agricultural production and restoring them to native riparian habitat. Long-term pesticide and herbicide applications would also be reduced or eliminated under the selected alternative, leading to a positive or negligible effect on soils.

Geology and Hydrology

Potential changes in water surface elevations were evaluated in hydrologic models to assess the potential effects of converting agricultural land to riparian habitat on 9 units of the Refuge under the Restoration EA (USFWS 2002b). Any future restoration plans outside of these 9 units would be evaluated on an individual basis to assure that restoration projects would have a neutral affect on water surface elevations and no adverse effects to adjacent properties. As agricultural operations cease and Refuge lands are restored to riparian habitat, the need for flood protection of these properties is reduced. By restoring the floodplain hydrology on Refuge lands, flooding on neighboring agricultural operations may be reduced.

Air Quality

Under the selected plan, both short and long-term increases in pollutant emissions are expected. Short-term increases in dust and tailpipe emissions due to restoration projects which disturb the soil and/or require the use of heavy equipment work will occur. Long-term minor increases in tailpipe and fugitive dust emissions due to increased visitor trips and the construction of parking lots will also occur. However, the selected plan would have an overall positive effect on air quality with the implementation of full restoration over time.

Limited prescribed fire will be used under the selected plan to control nonnative weeds which may also temporarily impact air quality. Burning vegetation could temporarily and substantially increase PM10 concentrations in the areas. Adverse impacts from prescribed fire are expected to be minimal due to the small burn size and measures to avoid adverse impacts described in the Fire Management Plan.

Water Quality/Contaminants

Land-disturbing construction activities would occur under the selected alternative, but would have minimal impacts on water quality. To prevent groundwater contamination, the Refuge would identify and protect wells expected to be exposed to inundation, or would abandon and seal the wells according to county specifications. With the conversion of agricultural lands to riparian, the selected alternative would result in an overall long-term reduction in pesticide applications within the Sacramento River floodplain. Over time, the selected alternative is expected to result in positive effects on water quality on the

Sacramento River. Restoring the floodplain hydrology on Refuge lands reduces the need for flood protection of these properties and may also reduce flooding on neighboring agricultural operations. Sediment and contaminant levels could also be reduced. These effects, although beneficial, are not significant.

Vegetation

The riparian restoration would have beneficial long-term impacts on the Refuge. Approximately 2,372 acres of land on 9 existing units will be planted or allowed to revegetate with native vegetation based on the Restoration EA. The additional 3,255 acres that would be restored under selected alternative would have additional beneficial effects. Habitat restoration fulfills the Service's congressional mandate to preserve, restore, and enhance riparian habitat for threatened and endangered species, songbirds, waterfowl, other migratory birds, anadromous fish, resident riparian wildlife, and plants. In the context of the large amount of habitat lost along the Sacramento River compared to the amount of habitat that would be restored, the beneficial effects are not significant.

Restoration activities under the selected alternative would not have adverse effects on special-status plants or sensitive natural communities since these activities are limited to existing fallow or agricultural areas. Special-status plants and sensitive natural communities would benefit from implementation of the selected alternative. The selected plan would utilize herbicides for weed maintenance in existing riparian areas and in restoration sites, and for weed maintenance in orchards. Use of herbicides would have a positive effect on vegetation, since the control of nonnative weeds would result in an increase in native species with minimal environmental cost.

Increased public use will cause small dispersed impacts to some vegetated areas. Areas with special-status plants and sensitive natural communities would be avoided in the placement of trails, parking lots, and other public use facilities. Foot traffic would likely increase in areas that are most easily traversed and the small amount of trampling that would result would have temporary and small-scale impacts on vegetation.

Wildlife Resources

The selected alternative will result in short-term and long-term benefits and potentially some adverse impacts on wildlife. The restoration of 2,372 acres covered under the Restoration EA and the additional 3,255 acres of habitat under the selected plan could temporarily disturb wildlife in these units. However, once restoration is completed there will be a long-term benefit to wildlife due to improved habitat conditions. These effects though beneficial are not significant.

Increased public use under the selected alternative would result in disturbance to wildlife. Due to the inaccessible "jungle-like" nature of a mature riparian forest; disturbance would be limited to those habitats that are more open to foot travel. There would also be increased public education, trails and signage, and law enforcement, all of which would help to alleviate the degree of disturbance.

Special Status Species

Under the selected plan the federally-listed endangered Chinook salmon (winter-run ESU); federally listed threatened bald eagle, giant garter snake, Chinook salmon (spring-run ESU), steelhead, Valley elderberry longhorn beetle; and federal candidate western yellow-billed cuckoo and Chinook salmon (fall- and late-fall run ESU) would continue to benefit from the Service's efforts to improve habitat quality. Short and long-term benefits for special status wildlife species due to restoration of riparian habitat would occur under the selected plan. The Section 7 consultation with USFWS (2004) and NOAA-Fisheries (2004) concluded that the selected plan is not likely to adversely affect any of the special status species occurring on the Refuge.

Every effort would be made to incorporate existing elderberry shrubs in agricultural habitats into the restoration plans, although an occasional shrub may be affected. This effect would be infrequent and offset by the substantial increase in Valley elderberry longhorn beetle (VELB) habitat created by restoration activities. Public education efforts and increased law enforcement should help to decrease the potential for negative impacts to VELB and associated habitats. Adjacent landowners have expressed concerns that planting elderberry shrubs near their properties could lead to the spread of VELB onto their properties, with resulting special-status species issues. The selected alternative leaves a 100-foot-wide corridor along the inside of the Refuge perimeter in which no elderberry shrubs would be planted, reducing the likelihood that VELB would colonize elderberry shrubs on adjacent properties.

Adverse effects to giant garter snake (GGS) could occur if restoration activities were to occur in potential GGS habitat. Specified measures would be taken to protect GGS and its habitat when threatened by restoration activities. Increased public use due to implementation of the selected alternative is unlikely to cause any adverse effects on GGS. It is unlikely that wildlife-dependant public use activities (hunting, fishing, wildlife observation and photography, environmental education and interpretation) will affect this species in these habitats.

The selected alternative would provide positive effects for special status wildlife species since additional acreage would be restored to riparian habitat. However, the beneficial short and long-term effects on wildlife would not be significant. The implementation of could create some disturbance to special status species due to increased public use. To alleviate any negative effects, areas that are known to have sensitive species would have restricted public access and may have temporary closures instituted for protection during critical lifecycle periods.

Fisheries Resources

The implementation of riparian restoration in the selected alternative would result in long-term beneficial effects on fish in the Sacramento River, including winter/spring run Chinook salmon, steelhead, and Sacramento splittail. The resulting riparian habitats would provide shaded riverine aquatic habitat and large woody debris, increasing cover, food, and other main channel and floodplain habitat components for fish. These effects,

although beneficial, are not significant. The loss of riparian habitat on the Sacramento River has contributed, in part, to the decline of our native fisheries resources. The Refuge encompasses only a small portion of the Sacramento River, therefore, is only part of what maybe required for the continued long-term survival of our fisheries resources.

Temporary impacts on fish species could occur during restoration implementation resulting in a temporary increase sediment load in the river. Increased input of sediment has the potential to increase turbidity, possibly reducing the feeding efficiency of juvenile and adult fish. Because the Sacramento River is typically a turbid system, additional sediment input from restoration activity would be comparatively minimal and would not have any noticeable effect to the overall condition of the river. The selected alternative would allow fishing at the Refuge, but is not expected to significantly affect fish harvest since most areas along the river are accessible by boat only and are already being fished.

Visitor Services

Under the selected plan, the Service will improve and expand all visitor services on the Refuge as funding becomes available. There would be an increased promotion of the Refuge with schools, the development of an educator-led curriculum for Refuge resources, and additional refuge signs, trails, restrooms, and parking lots under the selected alternative. Visitation may increase to approximately 5,500 total annual visits. The public would be allowed daytime access to much of the Refuge for hunting, fishing, wildlife observation, photography, interpretation, and environmental education. The selected alternative balances these public uses with the mission of the Service and the purposes of the Refuge. Sensitive areas for wildlife, plants and cultural resources have been set aside as sanctuaries (20%) and will be closed to the public. The remaining 80 percent of the Refuge that allows wildlife-dependent public uses have been carefully planned. Approximately 52 percent of the Refuge will be opened to hunting and 23 riverbank miles will be opened for fishing. Compatible locations of trails and facilities including restrooms and parking lots have been chosen to minimize disturbance to wildlife. Areas outside the trails and facilities, will not receive as much visitation or as concentrated visitation due to the thick “jungle” nature of the riparian habitat. The overall increase in wildlife-dependent recreational opportunities is not significant.

Public Review

The planning process incorporated extensive public involvement in developing and reviewing the CCP. This included four public workshops, four planning updates, and public review and comment on the planning documents. The details of the Service’s public involvement program are described in the CCP and EA.

Conclusions

Based on review and evaluation of the information contained in the supporting references, I have determined that implementing Alternative B as the CCP for management of Sacramento River National Wildlife Refuges is not a major Federal action that would significantly affect the quality of the human environment, within the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969, as amended. Accordingly, the Service is not required to prepare an environmental impact statement.

This Finding of No Significant Impact and supporting references are on file at the U.S. Fish and Wildlife Service, Sacramento National Wildlife Refuge Complex, 752 County Road 99W, Willows, California, 95988 (telephone 530-934-2801) and U.S. Fish and Wildlife Service, California/Nevada Refuge Planning Office, 2800 Cottage Way, Sacramento, California, 95825 (telephone 916-414-6504). These documents can also be found on the Internet at <http://pacific.fws.gov/planning/>. These documents are available for public inspection. Interested and affected parties are being notified of this decision.

Supporting References

U.S. Fish and Wildlife Service. 2005. Final Comprehensive Conservation Plan for the Sacramento River National Wildlife Refuge.

U.S. Fish and Wildlife Service. 2004. Informal Intra-agency Section 7 Evaluation for the Draft Comprehensive Conservation Plan and Environmental Assessment for the Sacramento River National Wildlife Refuge, Butte, Glenn and Tehama counties, California (1-1-04-I-2214).

U.S. Fish and Wildlife Service. 2002. Final Environmental Assessment for Proposed Restoration Activities on the Sacramento River National Wildlife Refuge (Ryan, Ohm, Haleakala, Pine Creek, Kaiser, Phelan Island, Koehnen, Hartley Island, and Stone Units). Report prepared by Jones and Stokes, Sacramento, California for the U.S. Fish and Wildlife Service, Willows, California.

U.S. National Oceanic and Atmospheric Administration – National Marine Fisheries Service. 2004. Informal Intra-agency Section 7 Evaluation for the Draft Comprehensive Conservation Plan and Environmental Assessment for the Sacramento River National Wildlife Refuge, Butte, Glenn and Tehama counties, California.



Manager, California/Nevada Operations
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Date