

**Presidential Migratory Bird Federal Stewardship Award  
Nomination Application**

**1. Applicant (must be a Federal Agency. If more than one, list the lead agency):**

Heather Root, Natural Resource Specialist, Bureau of Land Management, Bakersfield, CA

**2. Co-applicant(s) if any; can be Federal or non-Federal entity. A co-applicant is a major contributor to the outcome of the project (e.g., without their contribution, the action would not have occurred):**

Carole Combs, Executive Director, Tulare Basin Wildlife Partners, Three Rivers, CA  
Elizabeth Palmer, WRP Team Leader, Southern California, Visalia, CA

**3. Action (In two pages or less, describe how the action contributes to overall migratory bird conservation. Be sure to highlight areas in which the action exceeds daily activities and/or agency mandates, and represents a leadership role in migratory bird conservation):**

The Bureau of Land Management's (BLM) Atwell Island Project (AIP) has established new upland and wetland habitat in the most endangered eco-region in California, the San Joaquin Valley. The result of a collaborative effort by multiple agencies, non-profits and private landowners, AIP is a model for project implementation through partnerships. The project's impact on Tulare Basin wildlife residents and migrants is significant – it restored marginal farmland with impaired drainage to important upland and wetland habitat in a region where only 3% of native uplands and 5% of wetland habitat remains. AIP's outreach to local conservation groups, local schools and AmeriCorps allows appreciation of a small piece of the historic avian abundance and stimulated excitement about conservation in this relatively impoverished region.

The Tulare Basin has lost the largest percentage of its native land (including wetlands) of any region in California. Agriculture and associated water diversions have altered and destroyed entire natural ecosystems, which has had a tremendous and adverse effect on waterfowl and migratory birds. Despite the landscape-scale alteration borne by the region, the Tulare Basin is still an important place for migratory birds: it is recognized by the Central Valley Joint Venture and in the North American Waterfowl Management Plan for its international importance in the life-cycle of migratory waterfowl and shorebirds of North America's Pacific Flyway; Central Valley surveys document the Tulare Basin as one of the most important regions in western North America to migratory and wintering shorebirds, particularly for early migrant ducks such as Northern Pintail and Green-winged Teal; a recent study found that Central Valley wetlands may be even more important to wintering raptors than previously thought – particularly White-tailed Kites, Northern Harriers, and Red-tailed Hawks. The state of Tulare Basin wetlands and the health of its migratory birds populations affect more than just the Tulare Basin - radiotelemetry and aerial survey data indicate that waterfowl wintering and breeding in the Tulare Basin serve as an important source of birds for northern California habitats. Protection of remaining Tulare Basin habitat and restoration of altered habits is vital to large populations of waterfowl, shorebirds and other migratory birds, including several threatened and endangered species.

The AIP is an effort by the BLM and partners to restore retired farmland to native valley grassland, wetland and alkali sink habitats, thereby providing habitat for declining wildlife populations and contributing to the recovery of sensitive, threatened or endangered plants and animals. AIP's management goals include restoring a functioning, sustainable ecosystem supporting native wildlife species; managing wetland vegetation and water levels to provide habitat for migratory waterbirds; and restoring and creating riparian zones along canals for neotropical migratory birds.

BLM began upland restoration on the 7,843-acre AIP site in 2003; wetland construction and restoration began in 2009. AIP began with 30 acres of existing wetlands and has since restored an additional 269 acres of Natural Resource Conservation Service (NRCS), Wetland Reserve Program Easement (WRP) lands, and is now in construction to restore another 150 acres of wetland habitat over the next two years. 34 acres will be designated permanent wetlands and another 47 acres will be designated reverse-cycle wetlands – both providing rare wetland habitat during the dry summer months. The project also aims to continue wildlife-friendly farming on 200 acres of alfalfa, grain and safflower to provide foraging habitat for Swainson's hawks, Long-billed Curlews, and White-faced Ibis. The restored uplands and wetlands provide habitat for declining wildlife populations and special status species including the Swainson's Hawk, Mountain Plover, Tricolored Blackbird, Burrowing Owls, and Greater Sandhill Cranes. Bird populations and species diversity at AIP continues to climb steadily: Recent bird counts record 45-60 species after a day of surveying compared to the daily bird counts of 12-15 species in the early stages of the wetland restoration. Winter bird surveys in the past two years have recorded 97 species in comparison to the 70 to 80 species recorded in the first 8 years of the project. The bird species count for the entire AIP has exceeded 220 species.

The value of AIP to Tulare Basin wetland protection and restoration efforts cannot be overstated. It is one of the largest and most comprehensive wetland and upland restoration projects in the Tulare Basin, promoting biological diversity on a landscape scale and providing valuable habitat to large populations of waterfowl, shorebirds and other migratory birds, including several threatened and endangered species. AIP's groundbreaking restoration work has provided a model for upland and wetland restoration efforts throughout the southern San Joaquin Valley. AIP has continually exceeded internal goals for acres restored each year, while the project as a whole has exceeded BLM's commitment to conserve wetland and riparian habitat. Finally, efforts on the part of BLM and partners to develop public access points within AIP mean that this site serves to highlight BLM and NRCS wetland restoration and management while demonstrating the benefits of protecting and restoring Tulare Basin wildlife habitats.

#### **4. When was the action initiated? (Initiation date must be 2002 or later)**

AIP began in 1998 when the Land Retirement Team – Bureau of Land Management, Bureau of Reclamation and U.S. Fish and Wildlife – was formed. The initial land acquisition was made in 2000 and continued acquisition of in-fill lands, adjacent lands and corridors linking neighboring protected lands is still in progress. Large-scale upland restoration work commenced in 2003 and wetland construction and restoration began in 2009. Restoration work continues in both habitat types as new land is acquired.

**5. Does the action take place locally, regionally, nationally or internationally? Please explain.**

AIP is a local, regional and international action. The project is located in the Tulare Basin, in the southern third of California's Central Valley. The Project is named for Atwell Island, the sandy ridge that separated the historic Ton Tache Lake from the historic Tulare Lake, once the largest freshwater lake west of the Mississippi River. As a regional action, AIP provides a crucial link in a chain of wetlands that stretch from Pixley National Wildlife Refuge to Kern National Wildlife Refuge. And as an international action, AIP provides a stopping point for birds traveling along North America's Pacific Flyway.

**6. How does the action meet or exceed agency mandates or daily activities?**

Although BLM has a commitment to sustain the health, diversity and productivity of public lands for the use and enjoyment of present and future generations, this project has been implemented far outside the previous land base and typical agency actions of the BLM. The project required the development of new technologies and professional skills to restore previously irrigated farmlands to upland and wetland habitats. In the state of California, BLM only manages two other wetland sites – the BLM Consumnes River Preserve; and the Payne's Creek Wetland Area – both in Northern California – so AIP is groundbreaking for both the region and the agency.

**7. Explain how the action promotes or results in effective migratory bird conservation.**

The focus of Atwell Island's wetland restoration and management is to restore habitats used by migratory and breeding birds and special-status species. Objectives for the project's wetland and riparian restoration and management are as follows:

- Restore historic wetlands for migratory birds
- Restore wetlands for breeding water birds
- Establish habitat for special-status species such as Swainson's Hawk (*Buteo swainsoni*), Fulvous Whistling Duck (*Dendrocygna bicolor*), Sandhill Crane (*Grus canadensis*) and White-faced Ibis (*Plegadis chihi*)
- Restore and create riparian zones along canals for Neotropical migratory birds
- Restore upland saltbush scrub and grassland habitats for native residents and migratory birds.

The BLM manages 299 acres as a mixture of riparian, permanent, seasonal and reverse-cycle wetlands. Riparian trees and shrubs have been planted along the levees and some of the islands to create nesting habitat for songbirds. Permanent wetlands have been planted with native tules and other wetland plants to provide year-round habitat for wintering, foraging and migrants. Seasonal wetlands provide wintering habitat whereas reverse-cycle wetlands provide summer nesting and foraging habitat. The mixture of these management regimes allows for shallow mudflats used by shorebirds.

**8. Provide details that demonstrate how the action is innovative.**

AIP is one of the largest and most comprehensive wetland and upland restoration projects in the southern San Joaquin Valley. Although restoration plant materials exist for similar projects in the North Valley, there were virtually no native plant species available for Tulare Basin upland and wetland restoration. Furthermore, few native ecosystems remain in the Tulare Basin and reference sites were scarce. Due to the lack of reference materials and sites, BLM and partners had to develop an innovative restoration plan for the project. In doing so, BLM created a blueprint for Tulare Basin upland and wetland restoration based on the unique climate, soil, hydrology and available native seed in the region.

Obtaining water for the project introduced another challenge and opportunity that required a great deal of resourcefulness on the part of BLM. BLM is working with a solar company to get solar-powered water pumping in exchange for siting solar panels on a portion of AIP lands. AIP now has a state-of-the-art pumping station that can pump water at different speeds depending on the amount of water available. The pumping system was designed to be extremely efficient, pumping 40% more water for the amount of energy it uses.

Soil contamination from prior farming activities provided an additional challenge to restoration efforts. BLM and its partners removed irrigation and planted native species to lower the perched water table and is associated toxins below the root zone, providing a healthy habitat for migratory birds and other species foraging and finding shelter at AIP.

As a testament to the success and innovation of AIP, UC Merced is now intending to locate a UC Natural Reserve and research station at Atwell Island. This new partnership will foster applied research to develop Best Management Practices and evaluate project success.

**9. Describe the roles and responsibilities of partners (if any). Partners are associated with the action through monetary or in-kind support.**

- Bureau of Reclamation – land acquisition, uplands restoration, visitor services [funding: \$500,000/year for restoration]
- US Fish & Wildlife Service – land acquisition
- American Land Conservancy – land acquisition
- Tulare Basin Wildlife Partners – restoration infrastructure, conservation planning for connectivity, liaison with UC Merced NRCS, and visitor access [funding: \$260,000 in grants acquired]
- California Department of Corrections and Rehabilitation (CDC&R) – uplands restoration
- Natural Resources Conservation Service (NRCS) – easement acquisition [funding: \$696,740]; wetlands restoration [funding: \$372,272]
- California Department of Fish and Game – wildlife management and reintroduction of species
- US Fish and Wildlife Service – wildlife management and reintroduction of species [funding: \$150,000/year]
- AmeriCorp VISTA and NCCC – wetland and upland restoration [funding: \$35,000 services/year, \$80,000 services/year]

- Endangered Species Recovery Program – kit fox dens, species surveys
- Cooperative Farmers – funding: \$80,000 services/year
- UC Merced – in progress (working to create a research station and a UC Natural Reserve at the Atwell Island site)
- Alpaugh Unified School District – \$15,000 for community relations & restoration
- Wildlife Conservation Board – visitor services
- Tulare County Resource Conservation District – secured and implemented NRCS restoration funds.

**10. How might the action be transferrable to other sites managed by this or other federal agencies? Does the action contribute to a tangible need locally, regionally, nationally, or internationally? How is this being encouraged? Please explain.**

AIP has achieved remarkable success in restoring more than 4,000 acres of upland habitat and 300 acres of wetland habitat, far exceeding its performance criteria. The restoration model that BLM developed through its innovative work at Atwell Island provides a blueprint for other groups looking to complete wetland restoration projects in the Tulare Basin. AIP also developed innovative techniques for dealing with contaminated water on retired farmland, providing a model that can be replicated on other retired agricultural lands in order to prevent disasters like that of the rapid die-off of birds and other species at the Kesterson Reservoir.

The next step for AIP is developing interpretive signs and opening the project to the public for visitor access. Because of its restoration success, Atwell Island is a spectacular destination for birdwatching and learning about the historic Tulare Lake.

The Central Valley Joint Venture calls for restoration of 19,000 acres of wetlands in the Tulare Basin and this project has contributed greatly to this goal.

**11. How does/did the action impact your agency’s current migratory bird conservation practices?**

BLM has long worked to implement the objectives of the Migratory Bird Treaty Act, primarily through the conservation of existing habitat, but AIP set a precedent by showing the value of wetland and upland restoration. AIP is also a model for successful partnerships with federal, state and local organizations and individuals. BLM’s partnership with NRCS enabled the restoration of 450 acres (150 acres of which is in progress) of new wetland habitat for migratory bird conservation.

**12. How does the action benefit migratory bird species of concern?**

Atwell Island provides habitat for many special-status species birds including Swainson’s Hawk (*Buteo swainsoni*), Sandhill Crane (*Grus canadensis*), White-faced Ibis (*Plegadis chihi*), American Bittern (*Botaurus lentiginosus*), Great Egret (*Egretta thula*), Northern Harrier (*Circus cyaneus*), Loggerhead Shrike (*Lanius ludovicianus*) and White-tailed Kite (*Elanus leucurus*).

As of the 2011 Christmas Bird Count, the total number of bird species seen at Atwell Island has exceeded 220, with 131 species at the restored wetlands.