



Helping the Habitat at Buenos Aires National Wildlife Refuge



The habitat improvement project is going smoothly at Buenos Aires National Wildlife Refuge. Invading mesquite trees are being cut or dug out, wells are being repaired, and wildlife water supplies are being improved. This will benefit all wildlife species on the refuge and is particularly intended to aid a reintroduction of the endangered, masked bobwhite quail.

The U.S. Fish and Wildlife Service (Service) hopes that the Recovery Act funded project leads to multiple benefits: Goals are to create or save jobs, to provide jobs that build employable skills, to develop an appreciation for environmental stewardship in young adults, and to preserve and restore the nation's natural landscapes and cultural resources. All of these objectives are being fulfilled at Buenos Aires NWR.



Masked Bobwhite Quail

The Refuge was established in 1985 to conserve the masked bobwhite quail. Bobwhites disappeared from the Altar Valley by the early 1900s due to habitat change and drought. Although feared extinct, a small population of masked bobwhites was found in Sonora in the 1960s. Now staff at Buenos Aires NWR are breeding the birds in captivity and releasing them on the refuge.

However, any reintroduction of a species is fraught with obstacles. A major problem is landscape change since the late 1800s. Good habitat conditions are critical to the success of the reintroduction efforts for these quail. Early in the 1900s, Refuge grasslands were altered by



Buenos Aires NWR

overgrazing and a lack of fire, allowing mesquite trees to invade the uplands. Then late in the 1900s introduced non-native grasses began to invade, causing the disappearance of several native grass species, including sacaton grass. Now the mesquite trees are so numerous and large that today's fires are not very effective in reducing mesquite coverage. Mechanical removal by cutting or digging is more successful.

Recovery Act funding allowed the refuge to hire Student Conservation Association archaeological interns to survey the refuge quail core habitat areas for Native American cultural resources. This is required by the National Environmental Policy Act so that cultural resource areas can be protected from disturbance. The workers discovered numerous sites that included grinding stones, arrow points, or occasional petroglyphs, all from the Hohokam era. Local Native Americans appreciate the refuge's awareness and protection of these artifacts. In addition, wood from the ARRA project mesquite cutting is available to the tribes for ceremonial purposes.



Soil Aeration; Bobwhite Quail Habitat

Contractors are cutting and digging up mesquite, assembling some of it into brush piles for quail shelters, and are removing the remainder. Mesquite removal is helping to restore some of the open, rolling grassland that typified the Altar Valley in the 1800s. Contracted workers are repairing six water wells on the refuge, which will help irrigate native plantings and supply water to surface wildlife drinking supplies. Also under repair are eleven earthen water tanks which have not been holding water due to erosion or other damage. Most mesquite cutting, well, and tank work is completed.

This summer contractors will plant native plants known to be favored for food and shelter by masked bobwhites. Soon irrigation piping will be laid to supply water for the planting site, in time for additional moisture from the summer rains. Another part of the project is soil aeration: Multiple small holes are poked into the ground using a towed rolling pasture aerator to enhance water percolation and to stimulate plant growth.

Mesquite cutting is visible along highway 286 around milepost 16 and along the refuge entrance road to headquarters, which leaves highway 286 near milepost 8. These areas were chosen because of their potential for use by masked bobwhites. Come visit the refuge and see habitat renovation in action.

Recovery Act funding is enabling the refuge to move into a new and exciting phase in the effort to bring back the bobwhites. Habitat recovery is a huge undertaking in respect to expense and time. Recovery Act funds enable the refuge to embark on this long-needed groundwork through contracting several aspects of the program. In future releases of captive-bred masked bobwhites, the birds will inhabit an improved environment with better chances of survival: More quail food plants, less mesquite, more water, and more brush piles for shelter. Deer and pronghorn will also benefit from more reliable water supplies. It is expected that these habitat improvements will enhance the landscape for all wildlife at Buenos Aires National Wildlife Refuge.