

Executive Summary

This proposal will restore 68 acres of flood irrigated cottonwood, willow and mesquite riparian habitat along the lower Colorado River within the East Wetlands located in Yuma, Arizona. This large restoration effort has already successfully restored over 250 acres cottonwood, willow and mesquite riparian forest, wetlands and aquatic vegetation. For the first time in 8 years the endangered Yuma clapper rail is now being detected in the one year old 25 acre *Quechan Arizona Water Protection Fund Project*, a direct result of the YEW restoration efforts. Additionally the cottonwood and willow riparian forest restoration (also funded by AWPf) is also being used by the endangered Southwest Willow Flycatcher. The bird population in the YEW restoration has doubled in a matter of two years, the bird diversity is up 70%. The YEW project has also created over 100 part and full time jobs in the Yuma and Quechan communities in the last six years. The YEW project now serves as a national model for ecosystem restoration and partnership building. The project is also used regularly as an outdoor classroom by local and regional schools and universities for environmental education activities volunteer events.

By utilizing the riparian and wetland revegetation techniques that have been tested and proven in the YEW, this proposal seeks to restore 68 acres that is presently dominated by non-native reeds (*Phragmites* sp.) and giant cane (*Arundo donax*). The end result will be 68 acres of flood irrigated cottonwood, willow and riparian forest. This proposal will propel the continuation of the multi-phase Yuma East Wetlands Restoration Project to protect and enhance 1,118 acres of critical wetland, aquatic and riparian habitats by embracing a holistic approach of riparian and wetland restoration by encompassing all habitats located in the entire floodplain. It will increase the area of restored acres in the YEW by 68 acres, creating over 378 acres of continuous native riparian and wetland habitat.

The aquatic, wetland, and riparian ecosystems of the Lower Colorado River have been greatly altered and reduced by over a century of water development projects, deforestation, agriculture and development, and non-native species invasion. This degraded condition has promoted the establishment and dominance of aggressive non-native species, such as tamarisk and giant cane. As a result, habitat quality has declined and many wildlife species have become threatened or endangered due to the loss of habitat. The native cottonwood, willow and mesquite habitat is vitally important for migrating and resident birds, native amphibians, reptiles, and mammals. In the arid southwest, native wetland and riparian habitats have disproportionately higher species diversity and density than any other habitat type in the overall landscape, however have become extremely threatened.

The Yuma Crossing National Heritage Area (Heritage Area) in partnership with the Quechan Indian Nation (Tribe), City of Yuma (City), State of Arizona, US Bureau of Reclamation (BOR), private landowners and other entities, has embarked on a landmark collaborative restoration effort by implementing the 1,118 acre Yuma East Wetlands Restoration Plan. Currently, there are over 250 acres of historic channel, aquatic, wetland, and riparian restoration projects that have commenced or are committed on the Yuma East and West Wetlands. The Tribe, City, AWPf, EPA, BOR, National Fish and Wildlife Foundation, Sonoran Joint Venture and the Heritage Area have invested over \$7 million into the East and West Wetlands Projects. These hard dollars have completed the permitting, wetland delineation, some interpretive facilities and environmental education programs, and on-the-ground native riparian and wetland restoration. An additional \$88,609 of matching funds will fund the ongoing project compliance, project management and partial project maintenance of the 68 acre project. This project will provide contiguous native habitat by restoring over 68 acres of native riparian forest linking the newly restored YEW Channel, the Colorado river and their affiliated restored riparian, wetland and upland habitats, increasing the total restored acreage to 378 acres. This linkage will inevitably restore ecological integrity and provide critical habitat for declining wildlife species. In order to accomplish this 68 acre riparian restoration, the following objectives have been proposed:

1. Restore 68 acres of flood irrigated cottonwood/willow and mesquite forest through proven revegetation techniques.
2. Monitor and evaluate the revegetation project to obtain valuable data to apply to optimizing future restoration activities within the YEW and measure project success.

This will be accomplished by completing the following tasks:

1. Evaluate the site characteristics of the 68 acre site to formulate an optimum restoration design
2. Clear exotic plant species and create 68 acres of flood irrigated cottonwood, willow and mesquite forest
3. Maintain the restored area to ensure successful establishment of the habitat
4. Monitor the success of the techniques used.