



TRES RIOS ENVIRONMENTAL RESTORATION AND FLOOD CONTROL PROJECT

U.S. Army Corps of Engineers

Request: Fund \$15 million to the U.S. Army Corps of Engineers (Corps) in FFY 2014 to complete design and construction of Phase III.

Community Value:

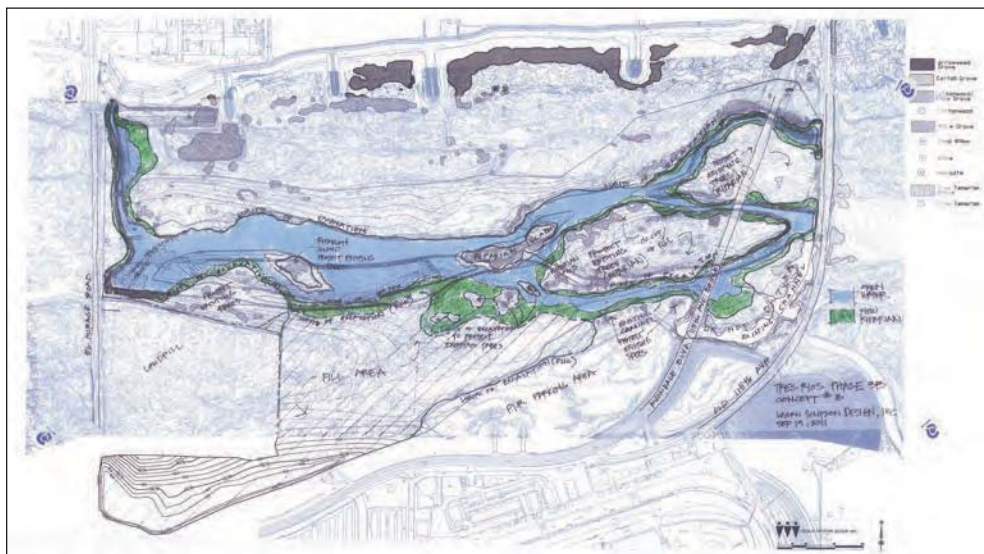
The city of Phoenix requests \$15 million in FFY 2014 for the U.S. Army Corps of Engineers (Corps) to complete design and construction of the Tres Rios Environmental Restoration and Flood Control Project (Tres Rios).

Phase I (Flood Control Levee) and Phase II (Constructed Wetlands and Pump Station) are complete. The final stage of the project – Phase III, the in-river features, which includes environmental restoration of the Salt River channel – is complete from 105th Avenue to El Mirage Road. The \$15 million requested will complete the design and construction of Phase III, from El Mirage Road to the confluence of the Agua Fria River. The funding also will be used to eliminate the non-native salt cedar re-growth during the establishment of the native plant species. This funding will complete Tres Rios.

The city of Phoenix also requests an increase in the authorized project cost of Tres Rios in the next Water Resources Development Act (WRDA) or Energy and Water Appropriations Act. The discharge from the 91st Avenue Wastewater Treatment Plant (WWTP) constitutes the fifth largest river in Arizona and provides critical riparian habitat in the Sonoran desert. Under revised Aquifer Protection Permit rules adopted by the Arizona



Department of Environmental Quality, without Tres Rios, extremely expensive treatment equipment (estimated at more than \$250 million) would be required at the WWTP to meet the new standards. If this investment was required to be made at the WWTP, the city of Phoenix and partnering Sub-Regional Operating Group cities (Phoenix, Scottsdale, Mesa, Tempe and Glendale) would develop alternative uses for the plant discharge effluent in order to fund this additional investment, such that effluent discharge from the WWTP to the river would decrease and eventually stop. In that event, the riparian habitat that has developed from this discharge of highly treated effluent to the



Tres Rios Phase IIIB Design Concept

river over the past 45 years would suffer tremendously. Estimates are that riparian habitat in the western U.S. has declined more than 90 percent.

Tres Rios connects to the Rio Salado and Rio Salado Oeste environmental restoration projects, located between 28th Street and 83rd Avenue, and will continue the restoration of the Salt River west from 83rd Avenue to the Agua Fria River. Tres Rios provides a net environmental benefit to the area by maintaining the effluent flow from the WWTP to the river and enhancing the riparian area. Other important aspects of Tres Rios include protecting more than 600 structures from flooding via the 4.5-mile levee constructed on the north bank of the river downstream of the plant; maintaining habitat for many species of birds, reptiles and mammals to live, nest and raise young among the native cottonwood, willow and bulrush; and creating passive recreation opportunities along the Salt, Gila and Agua Fria rivers.

The Tres Rios pump station and constructed wetlands are vital aspects of the overall WWTP protection. Changing flood conditions in the Salt River have made the WWTP vulnerable to internal flooding in the event of a 100-year flood. During those times, the WWTP cannot discharge wastewater. This will cause the wastewater to flood out the WWTP, causing significant damage as well as spilling raw wastewater into the Salt River for a period of at least six months while repairs are made. The environmental impact of this would be enormous, with a potential for steep EPA fines for such a discharge. Tres Rios will solve this problem by removing reliance on gravity for discharge of treated effluent from the WWTP.

The request for FFY 2014 also includes funding for the Corps to provide technical assistance to the city to help with the changes to the flood plain maps due to the levee construction on Tres Rios.

The city of Phoenix in conjunction with the Flood Control District of Maricopa County has submitted various reports and technical submittals to the Federal Emergency Management Agency for physical map revisions to the flood plain maps, thus reducing insurance premiums for the community. The newly constructed levee will protect a community that has been damaged by floods several times in the last few decades. Also included is funding for the completion of Phase III, the in-river features, which is the environmental restoration aspect of the project.

The wetlands need to be in place to accept water from the WWTP and polish the effluent prior to entering the Salt and Gila rivers. If the WWTP expansion cannot be utilized due to delays in federal funding for the wetlands, public health as well as growth in the Phoenix area could be jeopardized.



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