



Native Plant Society of New Mexico

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July 20, 2018

Phoenix Area Office, Bureau of Reclamation (ATTN: NM Unit EIS)
6150 West Thunderbird Road
Glendale, Arizona 85306

Dear Bureau of Reclamation and NM Interstate Stream Commission,

This scoping comment was prepared in response to the Federal Register Notice of Intent, dated 6/12/18, to prepare an Environmental Impact Statement (EIS) for construction of the NM Unit of the Central Arizona Project. The comment is submitted on behalf of the Native Plant Society of NM, a non-profit with approximately 900 members in seven chapters located around the state and in El Paso, Texas, in consultation with the Gila Native Plant Society, a chapter of NPSNM. Our mission is to educate the public about native plants by promoting knowledge of plant identification, ecology, and uses; foster plant conservation and the preservation of natural habitats; support botanical research; and encourage the appropriate use of native plants to conserve water, land, and wildlife.

The NM Unit is the infrastructure that would divert, store and convey water from the Gila River to downstream consumptive users. The Gila, the last free-flowing river in the southwest, originates in a Wilderness area. The river's high water quality and lush riparian habitat support a diversity of wildlife, including a number of listed Threatened and Endangered fish and wildlife species. It is hard to see how the severe impacts posed by this massive project to the ecosystem's hydrology, vegetation and wildlife could be mitigated.

The 2014 Nature Conservancy document "Gila River Flow Needs Assessment" states that "Flow variability is the defining feature of the Gila River in the Cliff-Gila Valley—creating a multi-aged riparian forest, floodplain wetlands and an array of aquatic habitats that support rich bird diversity, provide habitat for numerous mammals, and support one of the few intact assemblages of native fish that still persists in the lower Colorado River Basin." Therefore, in addition to direct loss of riparian and wetland habitat under the proposed construction footprint, the NPSNM and Gila NPS urge the BOR and ISC to quantitatively analyze within the draft EIS the following potential impacts of hydrologic alteration:

1. The potential that the disruption of high water flood events can alter seeding processes and in turn alter forest composition by causing:
 - * Decrease in cottonwood/willow establishment.
 - * Declines in overall canopy cover, age-class diversity, and individual tree vigor.
2. The potential that the diversion of small to moderate flows will result in smaller and shorter period floodplain inundations thus negatively affecting:
 - * Riparian tree species recruitment by reducing recruitment events and post-germination survival.
 - * Riparian vegetative diversity in the Cliff-Gila Valley, by disrupting the interactions between surface water and groundwater. These riparian vegetation patterns are closely linked to diverse groundwater levels.
 - * The health and vigor of sycamore trees by decreasing water availability.
3. The potential loss in acreage and quality of wetlands from reduction of flow, that may also cause:
 - * Reduction in cover of wetland species. Obligate wetland species, such as cattails (*Typha latifolia*) and spikerush (*Eleocharis spp.*), may be replaced by grasses and other non-wetland species that can tolerate drier conditions.
 - * Loss of unique channel wetlands created by scouring during large floods. Channel wetlands occur in small discrete bands in off-stream secondary channels or in other depressions where the water table is very high and silt and sand have been deposited over time.
4. The potential loss of floral biodiversity caused by concrete dam and water conveyance structures that:
 - * Disrupt riparian microhabitats for unique annual and perennial herbaceous species.
 - * Alter the existing earthen ditches that currently provide habitat for a mixed and diverse native plant community of deciduous over-story trees and understory shrubs.
5. The potential increase in exotic and invasive species colonization caused by the drying of riparian soils and resulting in:
 - * Replacement of obligate wetland species with drought resistance exotic grasses and sweetclover.
 - * A competitive recruitment edge for more drought tolerant tree species such as the non-native and invasive Russian olive (*Elaeagnus angustifolia*) and saltcedar (*Tamarix chinensis*).

6. Potential for a cascading series of impacts on overall plant growth if stress due to water limitation occurs.

The Proposed Action description in the Draft EIS must include a detailed water budget and a thorough cost-benefit analysis. We strongly urge the BOR and ISC to develop one or more additional Action Alternatives, which would use the federal funds available through the Arizona Water Settlements Act to benefit downstream users through water conservation and other potential actions short of diverting the Gila River.

Thank you for the opportunity to participate in the scoping phase of NEPA analysis for this project. We look forward to future participation when a Draft EIS becomes available.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel Jankowitz". The signature is fluid and cursive, with a prominent loop at the end.

Rachel Jankowitz, Conservation Chair
Native Plant Society of New Mexico

