

Protect the Gila River

Submit Your Public Comment on the NM Unit DEIS

The Bureau of Reclamation (BOR) and the New Mexico Interstate Stream Commission (ISC) released the Draft Environmental Impact Statement (DEIS) for the Gila River diversion project (NM Unit) proposed by the NM Central Arizona Project (CAP) Entity. As joint leads for the NEPA process the BOR and the ISC are taking public comment on four diversion/storage action alternatives and the no action alternative.

Background

In 2004 Congress passed the Arizona Water Settlements Act (AWSA) that authorized diversion of the Gila River if New Mexico pays for delivery of Central Arizona Project water to downstream users in Arizona to replace all water diverted in New Mexico. The AWSA provided \$66 million (2004\$) for the NM Unit Fund that can be used to fund projects that meet local water needs in southwest New Mexico without diverting the Gila River. The ISC and the NM CAP Entity spent \$16 million over more than 15 years on diversion planning. Completion of the EIS process by the end of 2019 AWSA deadline for eligibility for \$54 million in additional construction funding became impossible due to repeated NM CAP Entity changes, failure to supply basic information, and resulting delays. The additional federal diversion construction funding is lost forever.

Purpose and Need

BOR and the ISC established a very narrow project purpose and need as the basis of the EIS. The purpose is to develop the New Mexico Unit of the Central Arizona Project first authorized in 1968. The needs are (1) to deliver more water for irrigation when, where, and in the quantities needed to improve agricultural uses and (2) to provide the capability for expansion, including municipal use in Deming. The narrow statement of purpose and need precludes analysis of the tradeoffs between use of AWSA funds on community water projects rather than diversion alternatives.

The alternative diversion projects examined by the DEIS fail to meet the purpose and need. The analyses are biased in favor of the NM Unit yet admit that only a small amount of very expensive water can be delivered. The DEIS ignores that water delivery locations are too far downstream or on the wrong side of the river for many irrigators to receive any project water. All alternatives fail to provide capabilities for future expansion.

Project Controversy and Economics

Page 3 of the draft EIS is an unusual letter from the Department of the Interior to the DEIS reader. The letter admits the project is controversial and is opposed by the Governor and New Mexico's two U.S. Senators. It then says explicitly that none of the alternatives are economically viable. It says none are financially viable unless public funding can be identified to pay project construction costs.

DEIS Analyses are Biased

- Unreliability of AWSA water in future years is ignored. Water availability is presented as annual averages, concealing the fact that in many years, AWSA diversions are not allowed under the AWSA rules and there will be no water.

- Water yield simulations that are the basis of the downstream effects analysis show daily diversions of 125 cubic feet per second, yet the downstream streamflow effects are presented as tiny monthly averages and therefore don't adequately evaluate the negative impacts of diversion alternatives on river ecology.
- Economic evaluations in Appendix I and summarized in the body of the DEIS are based on new high-value crops, which can't be grown with what would be an unreliable water supply or at small scale without the labor these crops require. Farmers have said they won't grow such crops.
- All the estimates of annual costs were estimated by the NM CAP Entity's consultant and are grossly lowballed, using electricity rates for pumping for example that are a fraction of the actual applicable rates.
- DEIS financial analysis is based on "applied water" which does not subtract out evaporative losses and fails to reveal the amount of useable water available for irrigation.
- The impacts of climate change are given no consideration regarding reduced water availability for this project, increased evaporation from the shallow storage ponds, and resulting increase in costs per acre-foot.
- Given location of storage ponds and wells, project water can't be delivered to many lands identified by the NM CAP Entity as intended to receive it.
- The EIS ignores the fact that the NM Unit creates new habitat for predators of listed species (crayfish and bullfrogs), while reducing or damaging habitat for listed species.
- Freeport-McMoRan, the world's largest publicly-traded copper company, will be major beneficiary of project water in both the Cliff-Gila Valley and Virden Valley.

Alternatives

The NM Unit DEIS only considers different diversion and storage options in the Cliff-Gila, San Francisco, and Virden valleys. Refer to Table 1 in the Executive Summary of the DEIS for a complete description (see page ES-5). This fact sheet focuses on the NM CAP Entity's July 2019 amended proposed action (Alternative B) and their October 2019 recommended preferred alternative (Alternative D). (Note: Lower end of cost/acre-foot range assumes public subsidy for construction cost; upper end of cost/acre-foot range assumes water users pay for construction.)

Alternative B – Proposed Action -Total construction cost = \$51.8 million; \$248-\$1,554/acre-feet

- Cliff-Gila Valley - Large concrete diversion dam in the vicinity of Upper Gila diversion to serve existing Upper Gila, Fort West, and Gila Farm ditches. Storage ponds (1890 acre-feet), 5 production wells, conveyance "improvements" such as ditch lining
- Virden Valley– 2 storage ponds – 551 acre-feet
- San Francisco Valley – Concrete diversion structure, conveyance improvements, no storage

Alternative D – Virden-only Alternative is the NM CAP Entity's "Recommended Preferred Alternative" Total Construction Cost = \$6.9 million; \$270 - \$730/acre-feet

- Virden Valley – Storage ponds only – 551 acre-feet

The NM Unit is financially infeasible

- “Reclamation’s economic analysis shows that all action alternatives are not economically viable, nor are they financially viable without funding commitments.”
- “It is likely that the Department will select the no action alternative if no viable funding commitments for an action alternative solidify by the end of calendar year 2020.”
- Financial costs per acre-foot range from \$730 (Alt D Virden only) to \$3,326 (Alt E) without public funding.
- The financial cost per acre-foot with public funding ranges from \$248 for Alternative B to \$2,395 for Alternative E.
- The financial costs are low-balled estimates, because the effective cost per acre-foot of “useable water” (i.e., the amount of water available to use after subtracting out the amount of water lost to evaporation) is significantly higher.
- Project water is too expensive for farmers to buy.
 - Current ditch fees (delivery cost) in the Cliff-Gila Valley are approximately \$20 per irrigated acre and \$40 per acre in Virden.
 - The DEIS includes estimates of willingness to pay for leasing irrigation water based on water transaction data for New Mexico and Arizona. The annualized cost per acre-foot ranges from \$23.22 to \$246.22 with an average of \$96.70 and median of \$80.33.

The NM Unit is unfair

- The DEIS looks at using the NM Unit Fund to cover the diversion construction costs. The magnitude of subsidy ranges from \$460/acre-foot for Virden-Only to \$1306/acre-foot for the proposed action.
- These public monies should be used to implement priority community water projects rather than subsidize water for a handful of irrigators.
- The NM Unit Fund could be used to fund the more than \$57 million in water projects currently on the Infrastructure Capital Improvement Plan (ICIP) list, as well as other identified water needs that will benefit 60,000 people in the four-county area.

The NM Unit does not maximize public benefits as required under the Water Resources Development Act

- Costs of the diversion project to the economy as a whole are four times greater than the benefits for the Proposed Action and three times greater than the benefits for the Virden-only Alternative.
- None of the action alternatives “maximize public benefits” as required by the Department of Interior’s Principles, Requirements and Guidelines (PR&G’s) that implement the Water Resources Development Act, and therefore the no action alternative should be selected.

Proposed action will harm threatened and endangered species and riparian habitat along the Gila and San Francisco rivers

- Flowing out of America's first Wilderness Area, the Gila River is home to seven threatened or endangered species. Federal legislation has been introduced to designate the Gila as wild and scenic.
- The Gila River's resilience is already compromised by seasonally dewatered reaches downstream of existing diversions. This results in tree mortality, minimal vegetation recruitment, and channel instability.
- **Analyses show that streamflow impacts will exceed those described in the DEIS.**
 - The Proposed Action would increase the number of zero-flow and low-flow days downstream of combined diversions (existing water rights + AWSA water).
 - The Proposed Action would increase the frequency, duration, and extent of channel dewatering.
 - The Proposed Action would exacerbate existing dewatering, negatively impacting riparian habitat, aquatic invertebrates, fishes, herpetofauna, and birds, particularly in the reach below the combined diversion point.
 - Hydrologic analyses in the DEIS didn't consider that climate change will decrease average annual flow 6-8%, shift spring snowmelt earlier, and increase rainfall intensity and flood magnitudes.
- **Permanent concrete diversions, ditch widening, ditch lining, new roads, storage ponds and groundwater pumping would all have negative impacts on native species and their habitat.** Ditch lining and proposed production wells would alter floodplain hydrology.
 - Ditch widening and associated access roads would displace and disconnect critical habitat, including the large, contiguous cottonwood forests required by endangered yellow-billed cuckoo and other birds.
 - Aquatic non-native species are currently present in the Cliff-Gila Valley and have a negative impact on native species.
 - The DEIS underestimates the impact of storage ponds in increasing non-native species. Ponds may support non-native vegetation and non-native fishes, crayfish, and bullfrogs.
 - The DEIS presents insufficient information about how storage ponds will be operated and maintained, thereby precluding the ability to predict the proliferation of harmful non-native plant and animal species.
- **Increased depths to groundwater due to increased diversion at certain times of the year would adversely affect native vegetation** – in particular, multi-aged cottonwood and willow forests that occupy the Cliff-Gila Valley.
 - Specific impacts include reduced germination and survival and increased mortality of seedlings and mature trees.
 - Flow reductions can create the conditions for extensive stands of tamarisk to thrive; currently non-natives occur as scattered individual trees or small stands, occupying a tiny fraction (<5%) of the Cliff-Gila Valley.

- **Impacts to birds are likely greater than described in the DEIS:**
 - The Cliff-Gila Valley sustains one of the world's largest number of territories of breeding Southwestern willow flycatchers (SWWF).
 - The Cliff-Gila Valley has one of the largest concentrations of Western yellow-billed cuckoos (YBC) in New Mexico and may sustain the highest density in the entire Western U.S.
 - Threats to SWWF and YBC include loss, degradation, and fragmentation of riparian habitat by dams and reservoirs, water diversions, and groundwater pumping.
 - DEIS did not adequately analyze direct and indirect impacts of the Proposed Action on birds. The DEIS ignored habitat reduction due to reduced streamflow; did not assess impacts of habitat fragmentation on riparian birds; did not consider how ditch lining, widening, and maintenance and associated roads will fragment habitat; and ignored cumulative impacts due to climate change and how increased flow reduction will lead to greater fragmentation on populations already stressed by mismatched seasonal patterns

- **The Proposed Action amplifies existing threats to fish species by increasing water diversions and reducing habitat**
 - The upper Gila River is one of the few remaining refuges for a specialized and largely endemic arid lands fish fauna, including federally listed endangered spikedace and loach minnow.
 - Primary threats to spikedace and loach minnow include nonnative fish species, habitat degradation, and water diversions.
 - Permanent diversion structures can reduce genetic diversity of fish species if connectivity between subpopulations occupying upstream and downstream reaches is impaired or broken.

- **The Proposed Action degrades riparian habitat for threatened snakes.**
 - Northern Mexican gartersnake and narrow-headed gartersnake exist in the Cliff-Gila Valley and San Francisco River, but are rare. A natural flow regime is critical to maintaining the extent, complexity, and productivity of lowland riparian corridors.
 - Also threatened by pervasive non-native species that prey upon them and severely reduced native species upon which they prey.

Historic and cultural properties are likely to be affected by construction and operation of the NM Unit under any of the alternatives

- The Hopi Tribe has notified the BOR that “We are aware of thousands of sites in these cultural landscapes including field houses, small pueblos, large multi-room pueblos, pithouse villages, kivas, large isolated ceremonial structures, rock shelter and cave sites, rock art sites, agricultural terraces and check dams.”
- “Therefore, we anticipate this proposal will adversely affect many, many archaeological and cultural resources significant to the Hopi Tribe, including the disturbance of many, many human remains.”

- "From a natural and cultural resources perspective we do not consider it to be feasible to mitigate the adverse effects of this proposal. Therefore, we will support the No Action alternative throughout the National Environmental Policy Act and National Historic Preservation Act consultations."

Alternative D - Virden-Only Alternative (Recommended Preferred Alternative) is financially infeasible and not economically viable

- The Virden-only Alternative is financially infeasible with costs of \$730/acre-foot. Virden farmers currently pay approximately \$40/acre in delivery costs
- Using the NM Unit Fund to subsidize the estimated \$6.8 million in construction costs of the Virden-only alternative amounts to a subsidy of \$460/acre-foot of water applied.
- The financial costs are low-balled estimates, because the effective cost per acre-foot of "useable water" (i.e., the amount of water available to use after subtracting out the amount of water lost to evaporation) is significantly higher.
- DEIS states that all alternatives, including Alternative D, are "not economically viable." Economic costs for Virden-Only Alternative are three times the benefits, regardless of whether NM Unit Funds are used to construct the project.
- Virden-only does not maximize public benefits as required by DOI's PR&Gs and therefore should not be selected.
- Farmers and the NM CAP Entity continue to advocate for additional subsidies from the NM Unit Fund for exchange costs and operations, maintenance and replacement costs (OM&R).
- Expenditure of NM Unit Funds on the construction and annual exchange and OM&R costs for the Virden-Only project would take away more than \$7 million in funding from more high priority community water projects that serve many more people.
- The Virden-Only project will benefit a small number of farmers, including 175 acres of lands owned by the international mining giant Freeport-McMoRan.

Tell the BOR to Select the No Action Alternative

- **Immediate and future water needs in southwest New Mexico can be met cost-effectively by implementing non-diversion alternatives.** We can spend the NM Unit Fund (more than \$70 million) on priority community water projects that will create a secure water supply for 60,000 people far into the future without building a costly Gila diversion requiring massive ongoing public subsidy to benefit a very few agricultural interests.

How you can make public comment

Provide written comments to BOR **by June 8** by mailing them to:

Via U.S. Mail: Phoenix Area Office, Bureau of Reclamation (ATTN: NM Unit EIS) 6150 West Thunderbird Road Glendale, AZ 85306

Via Email: NMUnitEIS@empci.com (if emailing comments, please use "NM Unit EIS" as the subject of your email)