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TESTIMONY

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Water and Natural Resources Committee
New Mexico Legislature

Silver City Meeting, Agenda Item #4: Gila Diversion Technical and Financial Concerns

Dear Mr. Chairman and members of the Water and Natural Resources Committee

Thank you for inviting me to present professional testimony pertaining to the Gila River diversion and storage project. The New Mexico Interstate Stream Commission (ISC), acting as the State of New Mexico, is the champion of this project, which legally is called the New Mexico Unit of the Central Arizona Project.

The NM Unit of the Central Arizona Project (NM Unit) is a federal water development project initially authorized in by federal law in 1968. Reclamation and the State of New Mexico failed in three sequential major federal attempts in the 1970s and 1980s to find a feasible way to develop New Mexico's congressional appropriation of additional Gila River water. The fourth failure is in progress and is the focus of your meeting today.

Each of these three historical failures foreclosed alternatives for water development. The first two, Hooker Dam and Conner Dam, involved construction of mainstem dams and reservoirs on the Gila River. It's my belief that both were technically feasible. Both were very inexpensive compared to the current concepts, yet nobody was willing to pay for them, likely because nobody really needed the water. Both had unacceptable environmental impacts. The third alternative, which involved storage of water diverted from the Gila River in a reservoir constructed away from the river in Mangas Creek, was neither technically nor financially feasible.

The Arizona Water Settlements Act of 2004 (AWSA) reduced the maximum amount of New Mexico's entitlement to water from the Central Arizona Project from 18,000 acre-feet per year to 14,000 acre-feet per year. It also replaced the general limitations on New Mexico's junior right to divert Gila River water with a complex set of explicit conditions. Previously, diversion of New Mexico's water, under the most junior water right on the Gila River, was limited to those times when all downstream rights to water have a sufficient supply. Even then, New Mexico was

required to pay the federal government to deliver Central Arizona Project water to the Gila River, downstream of San Carlos Reservoir, to replace every drop of water diverted upstream. The AWSA replaced these generally described limitations with a complex set of explicit constraints that rarely are satisfied, which is an outcome that you might expect for the most junior water right on the river. These conditions make development of this junior water right extremely expensive. Water is rarely available. When it is, it must be taken at a very high rate and stored in a reservoir constructed away from the main channel of the Gila River.

The AWSA provided a 10-year planning period and substantial federal appropriations. New Mexico was required to notify the Secretary of the Interior by the end of 2014 if it wished to develop the NM Unit of the Central Arizona Project. It did so with a two-sentence letter.

The ISC, working with the Bureau of Reclamation, has spent over \$5 million since 2004 investigating a New Mexico Unit project, yet basic project attributes are still unknown. These include the location, configuration, size and net yield of the project facilities and the project beneficiaries, costs to water users, and costs to the State of New Mexico.

ISC and Reclamation have assiduously avoided the question of financial feasibility or the amount and reliability of the net new water that the project would develop. They have met with failure at every turn in defining a project that is technically feasible. They have never compiled the total costs of construction and financing of this billion-dollar project, nor estimated the cost of its water to users. They deny the impossibility of obtaining the necessary federal environmental approvals and the crippling near-term impacts of climate change on the specific water that New Mexico is legally entitled to develop. They also have ignored to date the conflicts between New Mexico's Gila River water development and the unsettled interests of the San Carlos Apache Tribe.

Mary Reece, who is on your agenda for this meeting and who was Reclamation's project manager in 2008 when she wrote the following, described Reclamation's expectations for the ISC's 10-year planning process that ended in 2014:

“[Reclamation] would expect that New Mexico would have considered the cost and environmental impacts in sufficient detail to conclude that the plan was viable, such that no fatal flaws would be discovered during the detailed environmental compliance process.”

Instead, the State of New Mexico's flawed planning process misrepresented the need for the purported yield of diverted Gila River water and rejected or unfairly considered much more cost-effective solutions to sustainable water supplies for Southwest New Mexico. The State of New Mexico, acting through the ISC, refused to

identify, much less confront, the facts that make the NM Unit of the Central Arizona Project technically and financially infeasible. The ISC has refused to professionally and publicly address the questions of water availability and the amount of new usable water. Diversion costs have been understated or presented piecemeal. Financial feasibility has been ignored. Public funds have bought worthless reports that the project will have a beneficial impact on endangered species. Other environmental values have been ignored. The State of New Mexico's planning process has been wasteful, mendacious, and unlawful. ISC dishonestly described this project to the New Mexico Legislature in its 2014 report to this committee, as I have previously testified.

The remainder of this letter briefly outlines the fatal flaws and serious technical challenges that any rational professional consideration would have revealed and admitted.

First, it will not produce much usable water, if any. The water legally available for diversion is less than the theoretical maximum amount of NM's exceedingly junior right to water. Reservoir storage losses will be huge. Climate change impacts will be severe, likely rendering the project non-functional.

Second, the project is not financially feasible. The ongoing Reclamation value study, convened this summer in an attempt to define a workable configuration for the NM Unit following the ISC's failure to do so, has confirmed to date that an initial phase of the project consisting of diversion works constructed within the Gila National Forest at the upstream end of the wild Upper Gila Box canyon and a small reservoir serving only Gila River irrigators in New Mexico, would cost \$320 million to construct. The reservoir would require a liner estimated to cost \$3 per square foot, to limit ruinous seepage losses, and is assumed to yield 5,000 acre-feet per year. If that were true, this phase of the water development project would cost approximately \$45,000 per acre-foot of capacity, after full use of available federal funds, and would benefit only a small number of New Mexico irrigators, who certainly cannot afford to pay for it.

The Reclamation value study confirms that a NM Unit configured to export some water to Deming would cost \$800 million to over \$1 billion.

Federal funding will be limited to what remains of the \$90 million in federal appropriations that can be used for any project that meets a water supply demand in Catron, Grant, Hidalgo, and Luna Counties. This is the money that is flowing in 10 annual installments to the NM Unit Fund, which the New Mexico Legislator created and turned over to the ISC to use at its discretion. Perhaps \$55 million will remain after federal permitting is completed. A maximum of an additional \$34 million was appropriated that can only be expended on construction of the New Mexico Unit and

which may or may not be available when and if the NM Unit begins construction. Reclamation has emphasized recently that this is the limit of federal funding.

Local governments have refused to date to make any financial commitment. They have said they do not have the financial wherewithal to do so.

The ISC has not addressed the need for state funding, but what other source of funding is available?

I have calculated that the cost of water from the NM Unit of the Central Arizona Project would exceed \$8,000 per acre-foot per year, based on the costs in Reclamation's July 2014 Appraisal Report to the ISC and a financing proposal by an investment banking firm. Deming, if it were to pay for its share of 2,500 acre-feet per year of capacity through charges to its water system customers, would have to raise its water bills for its average household from less than \$14 per month to more than \$170 per month.

Third, the required federal permits likely will be impossible to obtain.

The Legislature should ask the ISC how its calculations and assessments compare with mine. The answer will be revealing because the ISC after spending 10 years and approximately \$5 million on illegally awarded professional services contracts, doesn't have any answers to any of the key questions: how much water, for whom, at what cost, paid by whom?

The ISC misrepresents need for the water and willingness and ability to contract with the Secretary of the Interior to receive it. The ISC has not publicly calculated the amount of new usable water the NM Unit would produce, taking historical water availability and reservoir losses and mitigation requirements into account. It has never released a complete cost estimate. It has refused to address financial feasibility. It has never put forward any plan to pay for this project nor has it ever described the unit costs of project water in terms that are meaningful, such as the cost per acre-foot per year of new water supply or the impact on water bills.

At the same time, ISC refuses to use the available federal funding to pay for workable alternatives, including infrastructure improvements for existing public water systems and irrigation systems that are affordable, functional, and needed.

Why?

Sincerely,

/s/

Norm Gaume, P.E. (ret.)