

## MEMORANDUM

DATE: August 30, 2011  
TO: New Mexico Interstate Stream Commission  
FROM: Craig Roepke, ISC  
SUBJECT: Final evaluation panel recommendations of stakeholder Tier-1 proposals for use of the water and funding available to New Mexico in the 2004 AWSA

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Commissioners,

The date adopted by the Commission for completion of initial Tier-1 evaluations was August 16, 2011. The Tier-1 evaluation panel completed initial evaluations of all applications received by April 16, 2011. The results are described below and the evaluation matrix is attached. The results were forwarded to applicants and they had until August 23, 2011 to request reconsideration. No changes to the initial recommendations resulted from the panel's evaluation of the twelve requests for reconsideration received. The results of the panel's reconsiderations, with comments, are also attached below. These results are provided for information only. The Commission will not take formal action on Tier-1 evaluations until its September meeting. The deadline for submission of Tier-2 proposals is October 31, 2011.

Using the four criteria approved by the Commission on June 22, 2011, the evaluation panel has met and completed evaluations of forty-five Tier-1 stakeholder proposals for use of the water and funding available to New Mexico in the 2004 Arizona Water settlements Act. The criteria are:

- A. State whether the proposal is for the "New Mexico Unit," a "water utilization alternative," or both.
- B. Describe how the proposal will meet a "water supply demand" in the Southwest New Mexico Water Planning Region, comprised of Catron, Grant, Hidalgo and Luna Counties.
- C. Describe how the proposal considers the Gila environment and describe how any negative impacts might be mitigated.
- D. Describe how the proposal considers the historic uses of and future demands for water in the Southwest New Mexico Water Planning Region and the traditions, cultures and customs affecting those uses.

The evaluation results are attached below. Appropriate comments are included. Of the forty-five applications received, twenty-one met all four criteria and are eligible for further evaluation in Tier-2. In consideration of the lack of technical resources and experience of some applicants, the evaluation panel makes the additional recommendations below.

A number of applications proposed a study rather than a New Mexico Unit or water utilization alternative and thus do not meet criteria necessary for consideration in Tier-2 evaluations. The evaluation panel feels six of the proposed studies potentially provide important information or data and are recommended by the panel for consideration by the Commission for possible funding in future planning phases. Those five studies are:

- Augustin Plains modeling study
- Grant Soil and Water Conservation District Franks-Woodward recharge study
- Grant Soil and Water Conservation District San Vicente Creek recharge study

- New Mexico Tech geothermal study
- Rocky Mountain Research Station watershed study
- Deming Deep Well Project

Three applications did not fully meet criteria and are therefore not eligible for consideration in the Tier-2 evaluation process. However, the evaluation panel suggests the Office of the State Engineer continue to assess their feasibility, including potential negative impacts to the environment and possible mitigation measures. Those applications are:

- Catron County main stem dam
- Catron County tributary dam
- Hidalgo County main stem dam

Two applications proposed water banks to provide outside water use for domestic wells in the Gila Basin that are currently restricted to indoor use as a result of the 1964 U.S. Supreme Court Decree in *AZ v CA*. They did not meet Tier-1 criteria but are recommended by the evaluation panel for further legal and technical review by the Office of the State Engineer to ensure they comport with state regulations and policy. They are:

- Gila Conservation Coalition Domestic Wells (see comments in attached matrix)
- Upper Gila Watershed Alliance (see comments in attached matrix)

In the attached evaluation matrix, “P” indicates pass for a particular criterion, and “F” indicates failure. A failure in any one criteria fails the application for consideration in Tier-2 evaluations.

APPLICATION TITLE	CRITERIA				PROJECT DESCRIPTION	PANEL COMMENTS
	A	B	C	D		
Augustin Plains		F			The application is to fund a groundwater study to determine whether the approximately 244 square mile Augustin Plains basin provides substantial flows to the Gila River system. The magnitude and course of these flows should be determined before new river uses are decided.	Study itself does not meet water supply demand, recommend consideration for funding in future planning phases
Bayard Effluent Reuse	P	P	P	P	This project includes plant facilities providing tertiary treatment of wastewater effluent and distribution lines for effluent delivery. The purpose is to provide non-potable water for irrigation of public facilities, replacing and conserving the potable water currently used.	
Catron County Ditch Improvements			F		San Francisco River Basin/Catron County Acequias Commission Community Ditch and Diversion Improvement	Should have considered environmental impact of piping/lining ditch
Catron County Historic Water Rights	F				Making non-adjudicated historic water rights whole.	Neither a water utilization nor NM Unit project, water rights ownership an issue for OSE Water Rights
Catron County San Francisco Dam			F		San Francisco River Main Stream Dam Construction: Floodwater control, storage, diversion and distribution for current and future water demand needs in the Gila/San Francisco River Basin.	Does not adequately address environmental impacts but should have technical evaluation for feasibility by SEO
Catron County SF Tributary Dam			F		San Francisco River Tributary Dam Construction: Floodwater control, storage, diversion and distribution for current and future water demand needs in the Gila/San Francisco River Basin.	Does not adequately address environmental impacts but should have technical evaluation for feasibility by SEO
Catron County Watershed Restoration	P	P	P	P	Restoring the complete overgrown watershed on three adjacent tributaries to the San Francisco River. Devils, Deep, & Mineral Creeks.	
Deming Conservation Fund	P	P	P	P	Capitalize a fund to implement municipal water conservation projects in the Southwest New Mexico Planning Region	

Deming Diversion Project	P	P	P	P	Develop a regional water supply system with diversion from the Gila and pipeline to supply municipal, agricultural, and industrial uses. Aquifer storage to meet long-term demand.	
Deming Water Reuse	P	P	P	P	Expand Deming's reclaimed effluent reuse irrigation system.	
Deming Deep Well Project		F			An exploratory drilling and testing program to assess water quality and availability in the deeper portions of the aquifer near deming, NM	Appears to be more of an exploratory study that itself does not meet water supply demand, recommend consideration for funding in future planning phases
GBIC	P	P	P	P	A project to divert, store and distribute some, or all of the water available under the ASWA, through an upgraded infrastructure to assure a dependable and adequate supply of water in the river throughout the year to meet agricultural, environmental, recreational, and other needs, while also providing flood control to minimize damage to land adjacent to the river.	
Gila Conservation Coalition Agricultural Conservation			F		Agricultural Conservation to Reduce Net Depletions to Groundwater Project to be administered by the Water Trust Board. SWNM irrigators to apply to WTB for funding of agriculture water efficiency projects.	Does not adequately address environmental impacts
Gila Conservation Coalition Diversion-Rosgen	P	P	P	P	Redesign/construction of Gila diversions using Rosgen-style cross vane diversions to improve efficiency of diversion and maintain instream flows in the Gila River. Project funding would be administered by ISC's acequia program and provided to the GBIC or Grant SWCD--an arrangement similar to what was already contemplated by ISC in Miller Engineering Contract #7273/Work Order GR-09-01 – cancelled due to funding issues.	[Project terminated when preliminary engineering studies showed original "Rosgren" design not doable. – CR]
Gila Conservation Coalition Wetland Restoration			F		Wetland restoration on the Gila River in New Mexico for water storage and flood control.	No discussion of potential negative impacts and how mitigated

Gila Conservation Coalition Domestic Wells	P	P	P	P	Purchase Unused Water Rights for Outside Domestic Use in the Gila-San Francisco Basin Project to be administered and implemented by the Office of the State Engineer and/or Interstate Stream Commission.	Meets criteria but impossible to effect legally -should be evaluated for technical/legal feasibility by OSE
Gila Conservation Coalition Municipal Conservation	P	P	P	P	Municipal Conservation to Reduce Net Depletions to Groundwater Funding to be provided through WTB to SWNM municipalities for implementation of municipal water conservation activities	
Grant County	P	P	P	P	Creation of storage facility(s) in the vicinity of Ft. Bayard to store water for recreational uses and release a steady flow of water downstream of the storage facility(s) to recharge groundwater source locations for Bayard. The source of water includes effluent discharges from the Bayard Regional Wastewater Treatment Plant. Pipeline will transport effluent to the Santa Clara/Ft. Bayard area to irrigate ball-fields, parks and landscape. Improvements to the Ft. Bayard Medical Center Water System will be needed .	
Grant County Water Commission Regional Supply	P	P	P	P	This joint application supports the formal development of a Regional Water Supply and Distribution System to meet existing and future demand for drinking water for the municipalities of Grant County and adjacent unincorporated areas.	
Grant SWCD Franks-Woodward					This proposal is for a feasibility study of water recharge for Silver City, NM well fields using AWSA water and natural precipitation. This would entail a study of percolation and lateral movement of water within the defined aquifer.	Study itself does not meet water supply demand, recommend consideration for funding in future planning phases
Grant SWCD San Vicente - Cameron Creek					This proposal is for a feasibility study of water recharge for well fields in the drainage area of San Vicente, Twin Sisters and Cameron creeks using both natural precipitation and New Mexico Unit water. This would entail a study of availability, percolation and turbidity of water within the defined water sheds.	Study itself does not meet water supply demand, recommend consideration for funding in future planning phases

Grant SWCD Restoration	P	P	P	P	The continuation of an on-going project currently funded by the New Mexico Interstate Stream Commission referred to as "Paired Watershed Study to Track Soil Moisture and Alluvial Water Response Before and After Brush Treatments in the Gila Watershed Region". An interdisciplinary team is proposing to conduct a 10-year forest restoration project aimed at improving water yield and watershed health in the Gila Basin of Southwest New Mexico.	
Gila San Francisco Water Commission (distribution management)		F	F		A mechanism for delivery to agricultural users in the Gila/San Francisco basin, allowing for temporary, fluctuating consumption of water through short-term leases during times of low water availability.	Does not address environmental impacts. Also, relies on AWSA project being completed separately to meet a water supply demand
Hidalgo County - off stream storage	P	P	P	P	A diversion out of the Gila River into a pipeline or canal at the confluence of Mogollon Creek and the Gila. Convey water by gravity approximately 15.5 miles to an off-stream reservoir with a dam at the mouth of Schoolhouse Canyon to impound +/- 10,000 acre feet of water.	Needs more detail on environmental impacts and mitigation thereof for impoundment for Tier-2
Hidalgo County - Dam II			F		Construct a dam on the mainstream of the Gila River at the lower end of the lower box of the Gila.	Does not meet impact to Gila environment criteria but should have technical feasibility review by OSE
Lions Gate LGW T2 Proposal					5,000 acre vineyard project in Grant County, New Mexico south of Redrock, New Mexico	Failed Applicant submitted a Tier 2 proposal but did not submit a Tier 1 proposal., addressed Tier 2 criteria instead of Tier 1 criteria
Lordsburg Proposal		F			The refurbishment of City of Lordsburg storage reservoir to correct structural deficiencies.	Project is for maintenance does not address a water supply demand
Luna Ditch with Phases	P	P	P	P	Project would include installation of a more efficient diversion structure at the current diversion location and consideration of one, or a combination of several alternatives, including but not limited to, synthetic ditch liners, concrete lining or a pipeline to minimize water loss and maintenance costs in the irrigation ditches.	
NM Forestry Industry	P	P	P	P	Enhance surface water yield and watershed health in the san Francisco Basin of New Mexico and to mitigate the development of water under the AWSA.	

NMSU Cram Ochoa	P	P	P	P	A paired-watershed management project that will potentially increase water yield and contribute to meeting existing and future water demands in the region.	
NMT					Determine the feasibility of installing a 10 MW geothermal power plant and geothermal greenhouses along the San Francisco River. We conduct fieldwork, shallow drilling (2000 feet), aquifer test analysis, and hydrothermal modeling. During Phase II we would team with a private geothermal operator (ORMAT) to install the plant.	Study itself does not meet water supply demand, recommend consideration for funding in future planning phases
Pleasanton Eastside Ditch/ San Vincente Cameron Creek	P	P	P	P	Improve delivery of irrigation water to 24 users by decreasing conveyance water loss on 20,000 ft. Pleasanton East-side Ditch. Relining or inserting pipe into deteriorated concrete and dirt ditch.	
Rocky Mountain Research Station					The funding is requested to continue a research study on the Cascabel Watersheds in Hidalgo County. The study is evaluating the effects of cool-season and warm-season prescribed fires and a wildfire on the hydrology, erosion, and ecological resources of the oak savannas. The study involves 12 gauged headwater watersheds.	Study itself does not meet water supply demand, recommend consideration for funding in future planning phases
San Francisco River Association App 1	F	F			SFSWCD and SFRA have developed SFR Watershed GIS this allows us to map, plan and document all projects on the watershed. All attributes of slope, vegetation, roads, contour and more can be studied and used to help define priority needs on the watershed. We need to expand the project and provide training to use this resource.	GIS does not meet water supply demand
San Francisco River Association App 2		F			Propagate and provide native plant material for projects along the riparian corridor for the Gila/San Francisco watershed. Endemic species include trees, shrubs forage and native grasses. Provide re-vegetation planning for projects using best management practices and ten years experience propagating and returning native species to the watershed.	Project does not meet water supply demand
San Francisco River Association App 3		F			Set back levee along San Francisco River (SFR) and reconnect York Canyon delta to the SFR using rock blanket technology to prevent a head cut from running up York Canyon. Restore wetland strangled behind the levee and by setting back the levee, widening the flood plain of the SFR by at least 300 yards. As far down the levee as we can get with funding.	Does not address a water supply demand

Stream Dynamics Road Drainage		F			To conduct workshops on water harvesting road drainage projects.	Workshop and training do not address water supply demand
Stream Dynamics Water Harvesting	P	P	P	P	A large number of small water harvesting projects.	
Stream Dynamics Watershed Restoration		F	F		Watershed <u>RESTORATION</u> .	Environmental impacts too general - does not address water supply demand
Sunset and New Model Ditches	P	P	P	P	Lining of both canals with HDPE pipe with gates and cleanouts. Seventy five per cent of surface water irrigation acreage on the Gila River is served by these two canals. This project will improve water usage, stop leakage of unlined and dilapidated canals and lower maintenance and repair costs for many years.	Will need more detail on environmental impacts and mitigation thereof for Tier-2
UGWA	F				Establishment of a water bank for domestic use in the Gila/San Francisco basins and lifting of restrictions on rainwater collection.	Proposal is 2 projects. One a NM Unit the other a water utilization alternative but single project only identified as water utilization alternative. Project should be evaluated for technical/legal feasibility by OSE
Gila National Forest SF River Diversion/Ditch	P	P	P	P	San Francisco River diversion/Ditch improvements	
Gila National Forest Stream Flow Gages		F			Installation, operation, and reporting of up to 4 stream flow gages	Does not identify a water supply demand to be met
Gila National Forest Water Infrastructure		F			Water delivery system infrastructure improvements	Project is for maintenance. Does not identify a water supply demand to be met

Gila National Forest Watershed Restoration	P	P	P	P	Watershed restoration including riparian and wetland enhancement	Will need to identify more science in support of project; explain contradictory statements about water yield (see pg 23, 24)
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**Results and Comments From Panel Evaluations of Requests for Reconsideration Received from Applicants That Failed Initial Tier-1 Evaluations**

<b>Project</b>	<b>Reconsideration Result</b>	<b>Compiled Panel Comments</b>
Augustin Plains	Failed Tier-1	No specific reason given for reconsideration. This proposal is a modeling study and a study in itself does not meet a water demand.
Catron County Ditch Improvements	Failed Tier-1	Though minimal negative impacts might occur, they should have been acknowledged and the proposal should have at minimum included NEPA or some environmental study/assessment. The proposal does not include impacts to ditch side vegetation and shallow groundwater from eliminating leakage.
Catron County San Francisco Dam	Failed Tier-1	Request for reconsideration still does not consider environmental impacts. But panel recommends having technical evaluation for feasibility by OSE. Proponent expressed frustration at perceived expectation for more technical expertise than proponent can provide. Proposal still does not meet criteria. Proponent's appeal indicates that it does not see potential negative impacts to the environment even though they could be quite substantial. The panel will recommend that the concept be given further technical evaluation.
Catron County SF Tributary Dam	Failed Tier-1	Request for reconsideration still does not consider environmental impacts. But panel recommends having technical evaluation for feasibility by OSE. Proponent expressed frustration at perceived expectation for more technical expertise than proponent can provide. Proposal still does not meet criteria. Proponent's appeal indicates that it does not see potential negative impacts to the environment even though they could be quite substantial. The panel will recommend that the concept be given further technical evaluation.
Deming Deep Well Project	Failed Tier-1	The first phase of the project is for an exploratory well which appears to fall more under a study category than meeting a water supply demand. However, better description of tie in of overall project to production well presented in reconsideration request. But original proposal does not make that clear. Neither scope of work nor budget includes equipment necessary for pumping and treatment of water from that well.

Gila Conservation Coalition Agricultural Conservation	Failed Tier-1	Increased irrigation efficiency has been shown to increase net depletions in New Mexico. No information supplied to document that wells near Deming are deep enough to not see recharge from excess (flood) application. Neither possibility of impact to recharge nor increased depletions acknowledged in application. Nothing in proposal addressing increased near-surface evaporation with either drip or LEPA and effects on environment.
Gila Conservation Coalition Wetland Restoration	Failed Tier-1	Some statement should have been made in the proposal regarding the assessment of negative environmental impacts. Appeal affirms proponent does not recognize that even beneficial construction activities have potential negative impacts or that those impacts can be mitigated using BMPs. No consideration of increased water use by wetland evaporation from surface water and phreatophytes and resultant impacts on downstream users and environment.
Gila National Forest Stream Gages	Failed Tier-1	Proposal doesn't describe how it will meet a water supply demand but merely proposes to monitor water supply flows. Stream flow monitoring responds to the lack of data identified in the proposal, but stream flow monitoring itself will not meet a water supply demand. If, as stated in the appeal, stream flow monitoring is essential in support of a watershed study, most appropriate locations should be determined as part of the proposal. Studies themselves do not meet any water supply demand. Unclear how the gages would be used. Can't justify how meets a water supply demand without stating where gages are located, and how they would be specifically utilized to meet a water supply demand.
Gila San Francisco Water Commission	Failed Tier-1	First needs a project to develop the AWSA water the proposal would administer. The GSFWC proposes to administer that water if it had a project and contract for the water. OSE already encourages users on a system to cooperatively manage system supplies. This would include any AWSA water. In effect, there doesn't appear to be any need for this proposal.
Lions Gate LGW T2 Proposal	Failed Tier-1	A Tier 2 application was submitted. Though it may have mentioned Tier 1 it actually contained T2 criteria and information. The Tier 1 criteria was not specifically or substantively addressed. Without having successfully addressed Tier-1 criteria, there is no way to pass this proposal on to Tier-2 without disadvantaging properly submitted Tier-1 submittals.
Stream Dynamics Road Drainage	Failed Tier-1	Proposal doesn't address water supply demand nor does it identify negative impacts to the environment.
Stream Dynamics Water Harvesting	Failed Tier-1	Proposed workshops could be good idea for a variety of reasons. However, neither original proposal nor requests for reconsideration show how workshops will meet a water supply demand.

UGWA	Failed Tier-1	Water Bank proposed would use AWSA water and was incorrectly labeled as a water utilization alternative and listed two projects in one application. Reconsideration does not allow for the adding or deleting of information from the proposal for the Tier 1 evaluation. However, the proposed concept for a water bank utilizing AWSA water has a lot of merit and panel recommends further evaluation by OSE.
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