Description of the NM Unit

Cliff-Gila Location

The proposed action for the Cliff-Gila area includes the construction of a new permanent structure for diverting surface flows directly from the Gila River composed of a fixed crest weir diversion with riffle rundown at the Jordan/Shelley property designed for a flow of 150 cfs. The diversion structures will also be designed to provide water to both sides of the Gila River. The Fort West Irrigation Canal will be extended by 4000 feet using lining and siphon at the intersection with Spar Canyon. Utilization and partial lining of the existing Upper Gila ditch, Ft. West ditch, and the Gila Farms Ditches. Reconstruction and maintenance of the McMillan and Riverside historic ditches is also included. Five production wells will be constructed with a 500 GPM capacity. This will enable users to utilize alternative methods of delivery and irrigation such as sprinkler and drip irrigation methods which give a more efficient use of the water. Finally, four gravity-fed lined storage ponds in the Cliff-Gila Valley totaling just over 1800 acre feet will be constructed. Minor modifications of power operations will be required. The maximum potential AWSA water diversion available in the Cliff-Gila area is approximately 7580 acre-feet, as described in the HDR model results.

Virden Location

In the Virden area, the proposed action will utilize the existing Sunset and New Model Diversions, as well as other existing canals without modification. Pump facilities for delivery of water from ponds back into canals will be constructed along with two lined gravity fed storage ponds for a combined capacity of up to 550 AF. Minor modifications of power operations will be required. The maximum potential AWSA water diversion available in the Virden area is approximately 1277 acre-feet, as described in the HDR model results.

San Francisco Location

In the San Francisco area there will be construction of a new permanent structure for diverting surface flows directly from the San Francisco River composed of a fixed crest weir diversion with riffle rundown at the existing Spurgeon Diversion push-up dam. Construction of 2200 LF of pipeline to Thompson Flat Irrigation Canal with siphon across Pueblo Creek. The Diversion will also supply water to the Spurgeon Ditch on the east side of the San Francisco River. Minor modifications of power operations will be required. The maximum potential AWSA water diversion available in the San Francisco area is approximately 1439 acre-feet, as described in the HDR model results.

Additional information on AWSA and the NM Unit

The AWSA provides New Mexico with up to an annual average of 14,000 acre-feet of water per year form the Gila and San Francisco Rivers in addition to the amount decreed to New Mexico by the United States Supreme Court in *Arizona v. California,* 376 U.S. 340 (1964). The counties that will benefit from the AWSA are Catron, Grant, Hidalgo and Luna, which are in the southwestern part of New Mexico. The AWSA provides $66 million (adjusted for inflation to $90.4 million) for the construction of a New Mexico Unit of the Central Arizona Project (NM Unit of the CAP) or other water utilization projects in the four counties. The $66 million are deposited in the New Mexico Unit Fund in ten annual installments. As of September 30, 2018, the balance in the NM Unit Fund was $53.96 million. The AWSA also provides additional funding for the specific purpose of constructing the NM Unit. The total maximum amount of the construction funding is $62 million divided into two different awards-one for $34 million indexed to 2004 dollars and an additional $28 million also indexed to 2004 dollars. The current estimated amount of indexed dollars from the $34 million is $56.3 million.

The New Mexico CAP Entity, which was formed pursuant to the AWSA, is composed of fourteen local government entities and the New Mexico Interstate Stream Commission (ISC), which is a non-voting member. The members of the Entity include Luna, Catron, Hidalgo and Grant counties, the cities of Deming and Lordsburg, the Village of Santa Clara, three soil and water conservation districts (San Francisco, Hidalgo, Grant), and four irrigation associations (Upper Gila, Gila Hot Springs, Fort West, Gila Farms). The NM CAP Entity has worked closely with the BOR and the ISC since it was formed in 2015 to identify and develop a project that will allow the Southwestern part of New Mexico to access, develop and utilize a portion of the AWSA water. The proposed NM Unit is an important part of ensuring water security for existing and future water uses in an area of the State where the water is fully appropriated and the water provided pursuant to the AWSA is the only additional source of water. Not only is the available water fully appropriated, but the sources of water are stretched thin. For example, in the Mimbres basin, which is the aquifer that serves Deming, New Mexico, the groundwater is being steadily depleted, with wells drying up and farms being lost.

BOR provided the Entity with a Preliminary Draft Environmental Impact Statement (PDEIS) on June 17, 2019 and specifically requested that the Entity review and provide feedback on the PDEIS by July 3, 2019. BOR specifically requested that the Entity focus on the completeness and accuracy of the description of the proposed project. The Entity held a board meeting on July 2, 2019 and identified the specific components that it wishes to have considered as part of its proposed action and the information was provided to BOR on July 3, 2019. Although the environmental impact analysis has not been completed, the clarifications approved by the Board support a conclusion that the NM Unit can be built using only the construction funding. The proposed NM Unit is an improvement on the existing conditions, particularly in the Cliff-Gila Valley and can be operated and maintained for a reasonable price per acre foot.

One component of water security that does not exist in southwestern New Mexico is the ability to store surface water in order to provide a more predictable surface water supply during the growing season. Storage of AWSA water will support both current agriculture as well as the possible expansion to a greater variety of crops, including higher value crops. The proposed NM Unit includes four gravity-fed, clay-lined storage ponds in the Cliff-Gila valley for a total surface storage of 1890 acre-feet and two clay-lined, gravity-fed storage ponds in the Virden Valley with a total capacity of 551 acre-feet. In addition to the storage in the Cliff-Gila valley, five production wells are proposed, with a capacity of 500 gallons per minute, that would allow for direct delivery of AWSA water that could be used for sprinkler or drip irrigation, as well as being directed to irrigation ditches or surface storage.

A great deal of misinformation has been circulated regarding the diversion component of the Cliff-Gila valley portion of the project. The proposal is for a fixed crest weir diversion that will replace existing push-up diversions. The existing diversions are described in the PDEIS as "an earthen diversion structure (push-up diversion) to divert water from the Gila River. Irrigators operate bulldozers or other heavy machinery in the riverbed to push up soil to create these dams. Normal seasonal flooding routinely washes out these push-up diversions, reducing the period that the structures are functional, sometimes during the heart of the growing season." (PDEIS at 2-3). The proposed diversion would be permanent and much more protective of the river and the environment than the existing push-up diversions. The no-action alternative identified in the PDEIS actually has the most negative impacts because of the necessity to reconstruct the push-up diversions, sometimes several times a year. This necessity, combined with the inability of the push-up dams to regulate the flow of the Gila River, often results in the river going dry.

The proposed diversion, on the other hand, will eliminate the push-up diversions, which will support instream flow of the river, accommodate fish passage and promote natural river function. There will be no significant impoundment of water behind the diversion structure and the identification of the Gila as a "free flowing river" will not be changed or impacted. While there are potential impacts during construction of a permanent diversion, the proposed project provides the following positive impacts:

- Designed with a fixed crest diversion maintains a constant structural elevation allowing for instream flow even during low river flows.
- Having the ability to regulate diversion amounts into the irrigation canals in effect address concerns of inefficient diversions. The inefficiencies are related to diversions in the Upper Gila and San Francisco exceeding the allocated amount based on the fact that there is no way to regulate the amount diverted by push-up dams and the irrigation canals are live all year long without measurement of return flow.
- Provides stability and efficiency to agriculture after storm events
- Reduces impact identified in reconstruction of the push-up dams (Impacts identified in Alt. A of the PDEIS)

The Biological Assessment of the PDEIS provides direct impact analysis and while there are negative impacts related to diversion and storage, the operating plan of the NM Unit has minimized these impacts while providing positive impacts by:

- Diverting water during the time of year when there is minimal demand for irrigation, vegetation is predominately dormant, endangered species either are not present or are minimally affected (fish);
- Stored water provides for release into the system during the dry summer months, thereby providing additional water for the ecosystem that would have otherwise flowed downstream during the winter months.
- Creating a more sustainable agricultural system by having stored water.

The diversion is not a dam, nor will it cost $1 billion. Nor will it impact any portion of the Gila River that flows through the wilderness area. To continue making such statements is irresponsible and unacceptable. As soon as the NM CAP Entity was put into place, the Board specifically rejected previous plans, including a large-scale dam, which would clearly have been too expensive and also rejected any proposals that would have included the wilderness areas. Although the AWSA anticipated that the NM Unit would be paid for by a combination of the NM Unit Fund and the construction fund, the Board has worked diligently to come up with a project that can be paid for by the construction funds. The Board has recognized that both the NM Unit and non-diversion alternatives can be funded by utilizing both funds responsibly. The Board also recognized the high cost of operations and maintenance for a large project and reduced the scale of the project to make it affordable to operate and maintain.

Based on the decisions made by the Board, the proposed action would be completely paid for from the construction funds, including post-ROD costs such as additional engineering work, the acquisition of property or property rights, permitting and other costs associated with project construction, which the BOR has indicated come within the construction funding.

While there are other projects that help to provide water security in southwestern New Mexico, including 16 non-diversion water projects in 2012 at a total cost of $9.1 million from the NM Unit Fund. **The NM Unit is the only project that will bring additional new water to New Mexico**

The State of New Mexico and the NM CAP Entity have been accused of spending $15 million on planning the New Mexico Unit. Such discussions, however, do not recognize that a large portion of those funds were expended during the initial planning process requested by the administration of then Governor Bill Richardson. A large stake-holder group was established and, at the recommendation of that group, many studies were undertaken to collect and analyze data related to the Gila River and its eco-system. In addition, water and yield models were developed prior to an actual proposal for the NM Unit. At the request of the stakeholder group, millions of dollars were spent before New Mexico had even decided whether to pursue the NM Unit. Additional amounts were also spent in screening and evaluating the requests for approval of numerous non-diversion projects that were submitted to the ISC.

The NM CAP Entity has been in operation for three fiscal budget cycles and has spent less than $800,000 annually, including engineering and legal expenses. The ISC has approved funding for the Joint Lead agencies to complete the NEPA process and to take the proposed action and alternatives through to a Record of Decision by the Secretary. As shown in the 2018 report on the NM Unit Fund, as of September 30, 2018, the ISC had received $63.28 million from the BOR since January 2012 and the cumulative total expenditures amounted to $14.83 million. Of that amount, $4.4 million was advanced to the BOR for the purpose of conducting the NEPA analysis and $1.3 million was for the CAP Entity budget for FY2016-2018.

Pursuant to the requirements of NEPA, the joint lead agencies are required to take a "hard look" at the proposed action and identified alternatives, including a "no action" alternative. The hard look is to be based on factual information and each alternative is to be considered without pre-judging the outcome. The arguments being made by opponents to the proposed action, which are being used in an effort to block funding and to block an extension of the December 31, 2019 deadline for the ROD, require that the ISC and the Secretary to pre-judge the proposed NM Unit before the NEPA process is completed. Information about the estimated project costs, including construction costs and operation and maintenance costs, while being close to complete has not been finalized. The environmental impact analysis for the proposed project and the identified alternative is also close to completion but has not yet been finalized. Without the final analysis in place, it is premature to decide that the proposed project, or one of the alternatives, or a combination of elements from the proposed project and the alternatives, cannot go forward. The NEPA process is close to completion and the ISC has approved funding that will take the project through to a ROD.

New Mexico CAP Entity Operations	Budget
Salaries*	$140,000.00
Employee Benefits**	$49,000.00
Travel and Lodging ***	$30,000.00
Office space @ $1200 Max Per Month	$14,400.00
Employee Training	$2,000.00
Office Maintenance Contract	$5,000.00
Telelphone	$2,500.00
Insurance	$12,000.00
Printing/publishing/postage	$3,000.00
Office Supplies, Equipment, Fixtures	$3,000.00
Contract Attorney Fees	$25,000.00
Contract Accounting Fees	$30,000.00
Constract Auditing Fees	$12,000.00
Contract Engineering Fees	$25,000.00
Total	$352,900.00

*$73,000.00 of Salaries will be paid from and are related to NM Unit
**$25,550.00 of Employee Benefits will be paid from and are relatec
***$15,552.00 of Travel expenses will be paid from and are related

All other portions of the Budget will be paid out of the NM Unit for f

Routine Maintenance

Maintenance - Ponds/Pumps		Hours of Maintance	# of Days	Rate per Hour	Total Cost
Pond 2P - Virden		2	120	$21.75	$5,220.00
Pond 3P - Virden		2	120	$21.75	$5,220.00
	Sub-total				$10,440.00
Pond 4P - Gila		2	120	$21.75	$5,220.00
Pond 5P - Gila		2	120	$21.75	$5,220.00
Pond 7P - Gila		3	120	$21.75	$7,830.00
Pond 8P - Gila		3	120	$21.75	$7,830.00
	Sub-total				$26,100.00
Diversion Maintenance Routine					
Upper Gila		4	60	$21.75	$5,220.00
San Francisco		4	60	$21.75	$5,220.00
Conventional Wells Routine Maintenance					
Gila		2.5	120	$21.75	$6,525.00
Total Maintenance Labor		Full time Maintenance Employee with Benefits.			**$53,505.00**

Milage (Cliff/Gila) Central Location?		Days	Miles	Rate	
Virden		120	154	$0.54	$9,979.20
Upper Gila		120	12	$0.54	$777.60
Alma		120	74	$0.54	$4,795.20
	Total Milage				**$15,552.00**

Operations/Maintenance of all calls and delivery of AWSA water (Executive Director NM CAPE)		
Upper Gila		$25,839.00
Virden		$12,474.00
SF		$6,237.00
Total	33% of Time and Benefits of the Executive Director	**$44,550.00**

***** Annual/Semi-Annual Maintenance***

Annual/Semi-Annual Pond Maintenance (Sediment Removal/Liner Repair)	
Pond 2P - Virden	$7,282.00
Pond 3P - Virden	$8,255.00
Pond 4P - Gila	$8,499.00
Pond 5P - Gila	$9,452.00
Pond 7P - Gila	$6,943.00
Pond 8P - Gila	$23,598.00
Total Contract (Bid)	**$64,029.00**

Annual/Semi-Annual Diversion Maintenance(Sediment and Trash removal/Grout Repair)	
Upper Gila	$14,026.00
Spurgeon	$11,502.00
Total Contract (Bid)	**$25,528.00**

Annual/Semi-Annual Ditch Repair (Concrete Liner)	
Gila Farms/with connector	$2,687.00
Fort West	$8,236.00
Upper Gila	$4,796.00
Total	**$15,719.00**

Cost for Power and Supplies		Power	Supplies	
Pond 2P - Virden		$1,976	$327.00	$2,303.00
Pond 3P - Virden		$2,796	$327.00	$3,123.00
Pond 7P		$1,738	$93.20	$1,831.20
Pond 8P		$3,909	$376.00	$4,285.00
5 conventional Well Upper Gila		$4,655	$1,629.00	$6,284.00
	Total			**$17,826**

Annual Replacement Costs (Pumps, Gates, SCADA)		
Virden		$22,976.00
Upper Gila		$50,832.00
San Francisco		$8,571.00
	Total	**$82,379.00**

Total O&M Cost		
Virden		$76,832.20
Upper Gila		$205,930.80
San Francisco		$36,325.20
	Total NM Unit O&M Costs	**$319,088.20**

Summary Cost Sheet

Virden

OM&R cost	$76,832.20
Exchange Cost	$158.00
Exchange Cost minus 40% Return	$95.00
Acreage	550
Cost Per Acer Foot	$234.00

Upper Gila

OM&R cost	$205,930.80
Exchange Cost	$158.00
Exchange Cost minus 25% Return	$118.50
Acreage	1800
Cost Per Acer Foot	$232.90

San Francisco

OM&R cost	$36,325.20
Exchange Cost	$158.00
Exchange Cost minus 40% Return	$95.00
Acreage	173
Cost Per Acer Foot	$305.98


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