

Bureau of Reclamation

NOFO: R24AS00007

WaterSMART Drought Response Program:

Drought Resiliency Projects for Fiscal Year 2024

Technical Proposal for:

**SRC-2 MSIDD WaterSMART Drought Resiliency and Backup Pump (DRBP)**

For the Maricopa Stanfield Irrigation and Drainage District (MSIDD), the future of drought extremes and existential emergencies is now. Located about a 40-minute drive south of Phoenix in Pinal County, Arizona, MSIDD seeks federal WaterSMART funding to drill this well to increase available water supply and build drought resilience. Due to losing its Central Arizona Project - Colorado River water allocation, MSIDD faces an existential water shortage amidst a 20-year drought. MSIDD has seen its Colorado River supplies drop from an average of over 144,726 acre-feet between 2012 and 2021 to an estimated 2,275 next year - a loss of over 142,000 acre-feet of water supply. It is unlikely that river water will be restored. Due to scarcity and rising water costs, 45 to 50 percent of MSIDD's agricultural land lies fallow. It won't be possible to sustain agricultural production in the area after 2026 unless additional groundwater supply is provided by pipe conveyance to properties along the canal. These properties have lost access to both surface water and the groundwater currently delivered by the Santa Rosa Canal. Agricultural production in this area is worth \$2.3 billion annually. Drilling wells is the centerpiece of MSIDD's strategy to survive dramatic water supply cutbacks. This is a Funding Group II application, Task B: *Increasing the Reliability of Water Supplies Through Groundwater Recovery*. The shovel-ready project has preliminary engineering and design completed, and no anticipated sensitive environmental, cultural, or federal resource issues. Multiple stakeholders hydrologically linked throughout the Lower Colorado River Basin will benefit. The project supports Bureau water quality and reliability goals including the Ak-Chin and MSIDD water quality settlement. Reclamation has already issued MSIDD an SOR grant which will include this well and pipeline project as part of the drought water management plan along the Santa Rosa Canal. The project offers MSIDD a narrow path to rebuild its irrigation water supply reliability sustainably and resiliently. This project requires \$546,945 in funding from Reclamation's WaterSMART program. MSIDD stands ready to provide the \$568,801 cost share match of the total \$1,115,297 project cost. MSIDD appreciates Reclamation's encouragement to pursue this application to ensure compliance with the Santa Rosa Canal Settlement and needs to move ahead expeditiously, given the threat, and can complete the project in 24 months.

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## 1. EXECUTIVE SUMMARY

This project addresses the number one drought-induced threat to the economy of Pinal County, where large tracts of highly productive irrigated agriculture are threatened by the complete loss of surface water supplies, leaving new wells and conveyance its only outlet for survival after 2026. Compounding the challenges, all existing groundwater resources that are currently conveyed to MSIDD lands by the federal Santa Rosa Canal (SRC) must be decoupled in the coming years to resolve water quality concerns raised by the Ak-Chin Indian Community as part of a negotiated settlement. The only feasible solution is construction of new pipelines to provide alternative conveyance for properties that have lost water access. This Funding Group II , Task B application urgently seeks funding to drill and construct well SRC-2 and its piping and appurtenances. MSIDD serves some of America's most productive agricultural land in Pinal County, which touts \$2.3 billion in annual farm and beef and dairy cattle production. With a service area of just under 67,000 acres, MSIDD has recently delivered 260,000 to 270,000 acre-feet of irrigation water annually to its customers. This dropped to 199,518 acre-feet in 2022 and is expected to decrease to 181,275 acre-feet in 2024, with some lands having no access to water without development with new wells and conveyance. Estimates are that up to half of irrigated land in Pinal County is fallow due to inability to access or afford water. The University of Arizona has estimated that a loss of 300,000-acre feet of water by Pinal County irrigation districts would result in a \$63.5 million to \$66.7 million loss in gross county farm-gate sales, 7 percent of the county total. More than 475 jobs face elimination in an area with large Native American and Hispanic and Latino communities who may have difficulty finding alternative employment. This project will also help meet the Santa Rosa Canal Settlement's mandated well cutbacks and supports the Biden Administration's priorities related to tribal communities. The project also supports the System Optimization Review (SOR) grant MSIDD received recommending that this well be constructed and pipeline be built. This project is the foundation of MSIDD's survival strategy. This project is one of 11 wells proposed for MSIDD's drought emergency response with emphasis on the Santa Rosa Canal alternative well and pipeline plan element of the SOR. It is imperative for this project to be funded, at a total cost of \$1,115,297. MSIDD seeks \$546,495 from WaterSMART and stands ready to pay the \$568,801 cost share match. If approved, this project will be the third WaterSMART grant for MSIDD. Much more is needed if a potential collapse of MSIDD's system is to be avoided. The agricultural economy of Pinal County, Arizona faces the imperative of having this project funded as part of the overall alternative well and pipeline conveyance program for the Santa Rosa Canal, or very possibly seeing it's entire service area deprived of all but a minimal, non-sustainable, supply of water, eviscerating the county economy. As an Arizona political subdivision and municipal corporation, MSIDD is eligible for this grant as a Category A applicant under C.1 A: State, regional, or local authorities, whose members include one or more organizations with a water or power delivery authority. Arizona has been suffering from drought for two decades and is one of the most





severely affected states in the West. The project can be completed within 24 months with a start date of October 31, 2024. MSIDD needs to move ahead expeditiously, given the threat it faces.

## 2. PROJECT LOCATION

As depicted in Figure 1, MSIDD is in Pinal County, Arizona. The area served by MSIDD is agricultural, although Pinal County is included in the Phoenix metropolitan statistical area, and is depicted on the General Locator Map presented as Figure 2. The air photo in Figure 3 highlights the exact location of well SRC-2, at approximate coordinates of N32°50'23.44" W111°59'38.507" and which can also be described as the SE quarter section of Section 22 and SW quarter section of Section 23.

Figure 2. General Locator Map

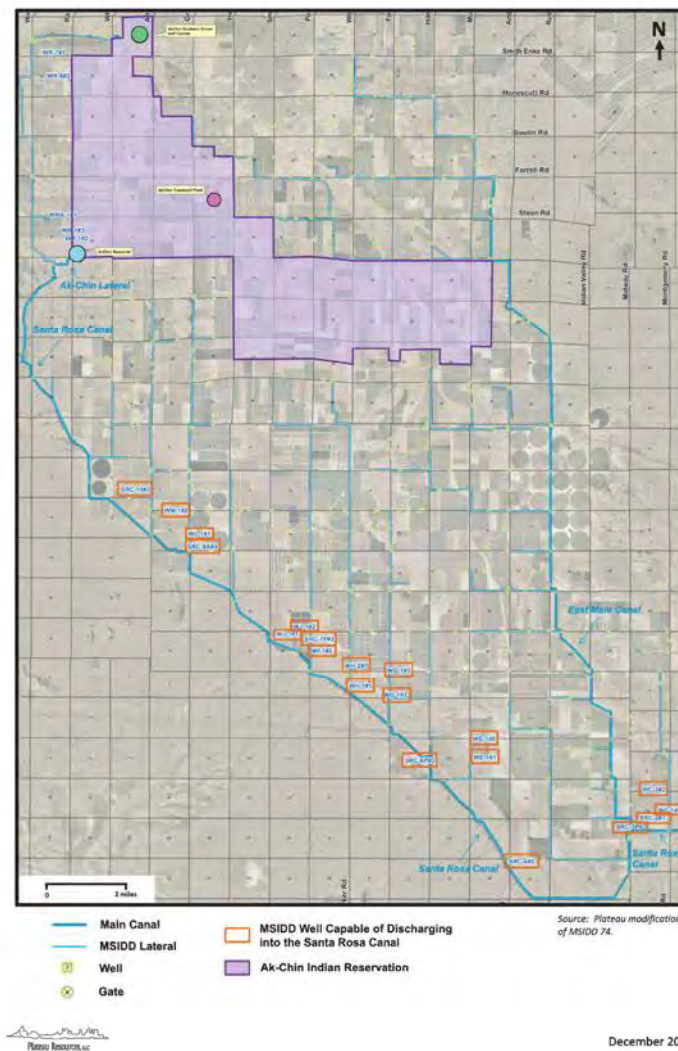


Figure 3. Well Site Air Photo



The project's pipeline coordinates are as follows:

START	N32°50'23.44" W111°59'38.507"
TURN	N32°50'32.136" W111°59'51.504"
END	N32°50'32.964" W111°59'51.611"

### **3. Project Description**

The Maricopa-Stanfield Irrigation and Drainage District is in Pinal County, Arizona, about 40 minutes from Phoenix. As a result of historic drought on the Colorado River, 50 years after its formation in 1952, MSIDD has lost its entire allocation of Colorado River Compact from the Central Arizona Project (CAP). In addition, under the terms of its recent settlement with the Ak-Chin Indian Community (Settlement or Canal Settlement), the district must cease conveying water from 20 wells through the SRC by 2026, preventing MSIDD from delivering this existing groundwater. Water scarcity and rising costs heavily damage the area's agriculturally based economy, as highlighted in testimony to Congress by MSIDD and neighboring Arizona irrigation districts (Appendix A). Estimates are that up to half of MSIDD agriculture land lies fallow in one of the nation's richest agricultural areas. Declaration of the Tier 2a shortage on the Colorado River has resulted in the complete loss of surface water while an increasing number of properties can't access groundwater due to of the need to decouple existing wells from the SRC by 2026. The confluence of these poses an existential threat to farming and agriculture in Pinal County and the employment jobs and livelihoods that come with it.

As part of MSIDD's Drought Resiliency Water Augmentation (DRWA) Program, MSIDD planned to connect 11 existing wells to its conveyance system in a severe water shortage. The state has approved drought funding assistance for irrigation district projects in Pinal County. Nevertheless, the need is real and urgent, and more assistance is needed. The well proposed here is one of the top priorities. The project is shovel-ready and needs to be completed as soon as possible. The project meets all drought-related criteria, including performance, benefits, cost, and support. It aligns with Interior's and the Bureau's mission and priorities and those set by Congress and the Biden administration. In addition, it supports the Administration's efforts to support tribal communities by helping to remove lower quality groundwater from the SRC and preventing it from comingling with higher quality CAP water delivered to the Tribal Nations. The project is scheduled to be completed within 24 months of its start date of October 31, 2024.

MSIDD stands ready to pay the \$568,801 cost share match of this project's \$1,115,297 total cost. MSIDD requests Reclamation's WaterSMART Program provide funding of \$546,495. Estimates are in hand along with pre-planning that make the project achievable. MSIDD is prepared to begin the permitting process immediately upon notification that this application has been approved. Contractor scope are ready and work can begin pending permitting, public bidding and contractor award. No special equipment is needed, and the ground where the well is to be built is disturbed and environmental or culturally sensitive land impacts are not anticipated. If approved, this project will be the third WaterSMART grant for MSIDD.

#### **Background**

A thorough study concluded that MSIDD could only meet customers' water supply needs, albeit at a significantly reduced volume, by drilling additional wells and constructing new conveyances. This project is the foundation of MSIDD's survival strategy. This project is one of 11 wells proposed for MSIDD's drought emergency response along the Santa Rosa Canal area which is incorporated into the ongoing System Optimization Review (SOR). The agricultural



economy of Pinal County, Arizona faces the imperative of having this project funded, or very possibly seeing it's entire service area deprived of all but a minimal, non-sustainable, supply of water, eviscerating the county economy. Arizona has been suffering from drought for two decades and is one of the most severely affected states in the West. Colorado River allocation cuts made in 2022 have resulted in MSIDD losing its entire Colorado River - Central Arizona Project allocation. Lost river water will likely never be restored. At the same time and partially due to reduced surface water compounding water quality issues, MSIDD must decouple 20 existing wells by 2026 to comply with its recent settlement with the Ak-Chin Indian Community related to use of the Santa Rosa Canal to convey groundwater supplies. The confluence of the declaration of a Tier 2a shortage on the Colorado River eliminating surface water supplies and need to decouple existing wells from its main conveyance system has put MSIDD in an existential crisis.

The district serves some of America's most productive agricultural land in Pinal County, which touts \$2.3 billion in annual farm and beef and dairy cattle production. With a service area of 70,000 acres, MSIDD has recently delivered 260,000 to 270,000 acre-feet of irrigation water annually to its customers, a volume expected to drop to 181,275 in 2024 due to drought and other challenges. The University of Arizona has estimated that a loss of 300,000-acre feet of water by Pinal County irrigation districts would result in a \$63.5 million to \$66.7 million loss in gross county farm-gate sales, 7 percent of the county total. More than 475 jobs face elimination in an area with large Native American and Hispanic and Latino communities who may have difficulty finding alternative employment. The project also supports the System Optimization Review (SOR) grant MSIDD received recommending that well be constructed and pipeline be built. If approved, this project will be the third WaterSMART grant approved for MSIDD. Much more is needed if a potential collapse of MSIDD's system is to be avoided, especially for land adjacent to the Santa Rosa Canal. A thorough study concluded that MSIDD could only meet customers' water supply needs by drilling additional wells and constructing new conveyance. This project is the foundation of MSIDD's survival strategy. This project will help meet the Canal Settlement's mandated well cutbacks and supports the Biden Administration's support for tribal communities.

### **Ak-Chin Settlement**

By approving this grant application, the Bureau will take a big stride in ensuring the terms of the Ak-Chin Indian Community Santa Rosa Canal Settlement will be met.<sup>1</sup> MSIDD must decouple 20 wells by 2026, with at least six decoupled in each 2024 and 2025 and the full 20 decoupled by the end of 2026. The wells and pipes being proposed will ensure that groundwater supplies lost due to decoupling the wells are replaced. Complying with the Settlement while retaining a reliable, sustainable and climate resilient water supply is a driving force behind this application by MSIDD. Additionally, the Settlement, which hinges on implementation of the well decoupling described above, will protect Reclamation's ability to convey groundwater and

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<sup>1</sup> See [http://www.tribalwateruse.org/?page\\_id=153](http://www.tribalwateruse.org/?page_id=153)

alternative surface water supplies of differing quality through other federally owned canals. This legal certainty is integral to drought resilience efforts across Arizona and the Western U.S.

### **Technical Description**

An irrigation production well will be drilled at the project well site. It will include a casing, screen, and all underground appurtenances. A concrete pad, motor, and electrical service will be installed above grade. Necessary connection to establish electric service will be completed by Electrical District No. 3, the exclusive utility provider for the area. A new 12-inch diameter pipe discharges into the well, a backflow prevention device, a flow measurement device, two pipe supports with concrete pads, and 25 lineal feet of piping above grade. The pipe will then transition beneath ground within the well site area and continue buried underground with 3-ft of cover for an approximate length of 2,680-feet.

### **Approach to Complete Work**

The district will collaborate with Reclamation to complete environmental requirements. No ground disturbance work will be performed until the required National Environmental Policy Act (NEPA) work is accomplished. MSIDD will secure all easement or use approvals and water usage rights prior to the Reclamation contract being executed. Once the contract with Reclamation is executed and the district receives the Notice to Proceed (NTP), an Action Plan will be developed that lists each task, scheduled interval, responsible party, comments/notes and when the activity or task is completed and by whom. The District's Consultant, George Cairo Engineering, Inc. (GCE) will finalize the project design, a consulting hydrogeologist will assist with the Arizona Department of Water Resources (ADWR) permitting work, and the right-of-way maps concurrently with the NEPA work. The district will obtain permits from ADWR for well registration, Pinal County Road crossings (if appropriate) and Pinal County dust control, and utility companies (power, gas, water, fiber optics, etc.). Once the NEPA work is completed and we are cleared for construction, the district will select an approved district Contractor and give an NTP to start the construction work. The Contractor will mobilize to perform the well site work, pipeline installation, automated gate installation, and miscellaneous activities required for the project and then de-mobilize upon the project's completion.

### **Water Supplies and Consumption**

MSIDD is ground zero for climate change impacts from Colorado River water shortages. Between 1989, when MSIDD took over operation and maintenance of district serving wells, and 2021, the year before Colorado Drought caused reduced allocation of surface water, the district delivered on average 267,687 acre-feet of Colorado River and groundwater supplies. Respectively, the 5-year and 10-year average of water delivery to MSIDD customers were 259,000 AF and 270,000 AF. In 2022, the first year of Colorado River cuts, water delivery fell to 199,518 acre-feet (29,754 AF of surface water and 169,764 AF of groundwater). For 2024, water deliveries are expected to be around 181,275 acre-feet or approximately 33% below historical water deliveries. Only 2,275 AF of Groundwater Saving Facility (GSF) CAP water is available for delivery by MSIDD in 2024 with an additional expected decrease in Colorado River available



in 2025 from the District's GSF partners. Table 2 presents a table of MSIDD deliveries between 2012 and 2022.

As discussed throughout this application, the total loss of surface water supplies makes groundwater resources the only remaining lifeline for farms within MSIDD service territory. Historically, farmers received up to 4-acre feet of water per acre of land per year. However, due to limitations in infrastructure and the pending decoupling of wells and use of the Santa Rosa Canal for groundwater delivery as part of the Ak-Chin Indian Community settlement, water availability for farmers is as low as .78-acre feet or less than one acre foot. The ability to store groundwater in the canal and use it to fulfill water orders is also impacting the district.

**Table 2. MSIDD Water Deliveries Between 2012 and 2022**

Year	CAP Water (Acre Feet)	Well Water (Acre Feet)	Total Acre Feet
2012	195,491	121,073	316,564
2013	155,721	115,244	270,965
2014	165,909	119,186	285,095
2015	140,182	122,778	262,960
2016	142,708	127,960	270,668
2017	132,005	132,322	264,327
2018	150,920	118,313	269,233
2019	118,882	125,026	243,908
2020	128,423	138,652	267,075
2021	117,020	133,705	250,725
2022	29,754	169,764	199,518
2017-2021 Average			259,054
2012-2021 Average			270,152
2023 Estimate	4,250	173,000	177,250
2024 Budget	2,275	179,000	181,275
Percentage Below 5 Year Average			-30%
Percentage Below 10 Year Average			-33%
New Well Projection - FY 2024 Watersmart Grant		2,000	1.1%
Project will increase groundwater supplies by 1%.			

The proposed well and pipeline project will increase water availability by approximately 2,000 AF a year or 20,000 AF over a 10-year period. The estimated water availability from the well site is a production capacity of up to 2,000 gallons per minute (GPM) pending well development outcomes. The well project will increase water availability for the district by 1.1 percent<sup>2</sup>. It is important to note, however, that due to the loss of conveyance through the SRC, without this project and other aligned efforts, some district lands will have no access to water at all. For these lands, the 1 percent increase in water availability greatly understates the impact.

**Table 3. Chuck Dickens Hydrology Estimates**

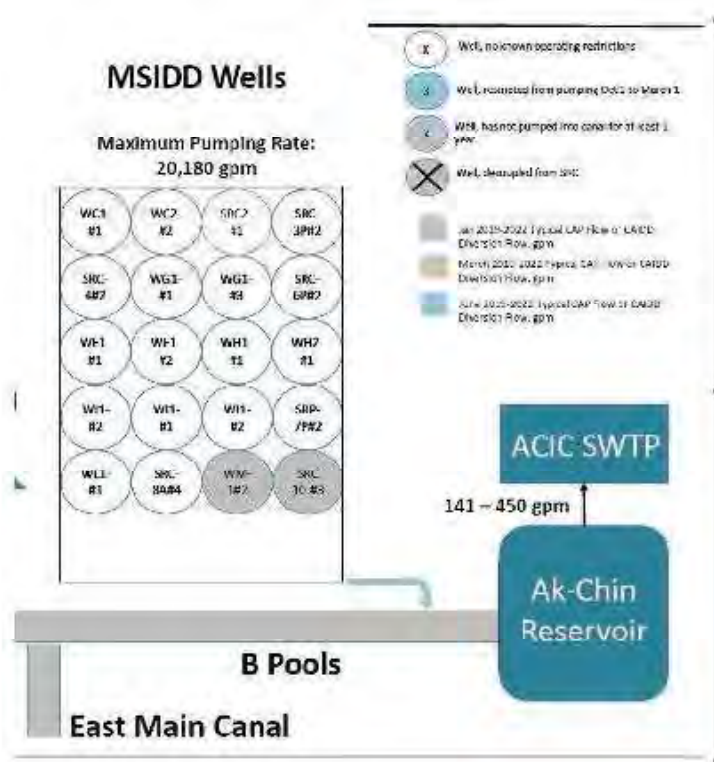
Well Project – Santa Rosa Canal	Acre Feet - Water Availability Estimate
Year	2,000
10-Year Period 20,000 Af	20,000 Af

<sup>2</sup> The water availability estimates are based on a review from the MSIDD hydrogeologist consultant, Mr. Chuck Dickens.

The well is projected to add 1.1 percent to MSIDD total water supply, calculated by taking the total estimated new water available (2,000 AF) dividing it by the total MSIDD groundwater supply for 2024 (2,000 /179,000).

Figure 4 identifies the twenty (20) wells that are capable of discharging water into the Santa Rosa Canal which total 20,180 GPM or gallons per minute and allow for up to 40,000 AF of water to be delivered through the Santa Rosa Canal annually. As described above, these wells will have no means of delivery once the settlement agreement with the Ak-Chin Indian Community is implemented by decoupling them from the SRC. Without alternative well and pipeline delivery infrastructure, the district will be forced to reduce water delivery to some areas of the district even further because by 2026 no groundwater can be delivered through the Santa Rosa Canal. The proposed project reduces the curtailment by approximately 2,000 AF or up to 5 percent of water capacity otherwise lost when the twenty wells that could deliver 20,180 gpm are taken offline.

**Figure 4. MSIDD WELL SYSTEM**



## Readiness, Implementation and Materials

Implementing MSIDD's settlement with the Ak-Chin, which includes this well, is MSIDD's number one priority. A copy of the well construction estimate is presented in Appendix B. MSIDD has known for years that its allocation of Colorado River water was at risk.

It developed the DRWA Program and applied for the SOR grant as its response to the drought emergency. MSIDD has all it needs to break ground and complete this project within 24 months of a Notice to Proceed (NTP) pursuant to the timetable and milestones set forth in Table 4. Materials and equipment needed for this project include materials and equipment customary to well and pipeline construction, including a pump, electrical panels, well lining, and pipeline.

**Table 4. Project Timeline and Milestones**

<b>Month</b>	<b>Milestone</b>
Month 1	NTP Received. Contractor retained and authorized to proceed. Materials and equipment ordered. Applications for permitting including NEPA checklist are filed. Materials and equipment ordered. Right-of-ways and easements obtained.
Month 12	All required permits received. Materials and equipment ordered. Site preparation commences, including pump and electrical pad installations.
Month 14	Drilling begins, pipeline trenching begins.
Month 22	System construction complete.
Month 24	Final pump tests, well commissioned.

MSIDD will work with the Bureau to complete the environmental requirements. The groundwork will not begin until the NEPA checklist has been approved. Before contract execution, MSIDD will secure all easements and water usage rights. After receiving the NTP, a detailed Action Plan will list each task, the scheduled interval, the responsible party, comments, and when the task will be completed. MSIDD's Consultant, George Cairo Engineering, Inc. will complete the final design of the project elements. In addition to NEPA work, Cairo will assist with the Arizona Department of Water Resources (ADWR) permitting process. Well registrations, Pinal County Road crossings, dust control, and utility companies (power, gas, water, fiber optics, etc.) will be obtained by MSIDD through ADWR permits. Once NEPA is completed and cleared for construction, the district will select a contractor and provide an NTP for the scope of work. Construction-wise, as with other new wells, the contractor will have to drill a hole, set up video monitoring, build casings with associated materials, install the pump and appurtenances, configure SCADA and above-ground piping with flowmeters, construct the well pad and electrical pads, and furnish electrical work to bring 3-phase power to the site. Construction will involve trenching for electrical conduits, installing electrical panels, commissioning, testing pumps, hauling off materials, and de-mobilizing. For pipeline installation, the contractor will mobilize, pre-plan, and purchase materials before mobilization to site, survey to stake the pipeline alignment, do site clearing, trenching, lay bedding material, and other activities related to pipeline construction.

### **Performance Measures**

The well will be designed to deliver a minimum of 1,000 gallons of water per minute, with the maximum permitted volume of 2,000 gallons of water per minute.

Flow tests conducted after the well is complete will validate this performance measure.

#### 4. Evaluation Criteria

<b>Evaluation Criteria Scoring Summary</b>	<b>Points:</b>
A. Project Benefits	30
B. Planning and Preparedness	20
C. Severity of Actual or Potential Drought Impacts to be Addressed by the Project	15
D. Presidential and DOI Priorities	15
E. Readiness to Proceed and Project Implementation	10
F. Nexus to Reclamation	5
G. Stakeholder Support for Proposed Project	5
<b>Total</b>	<b>100</b>

**Note: Projects may be prioritized to ensure balance among the program task areas and to ensure that the projects address the goals and objectives of the NOFO.**

**A. PROJECT BENEFITS:** The project is essential to starting to reverse an existential threat to one of America's most productive farming and dairy areas due to loss of the MSIDD's entire Colorado River delivery and need to decouple 20 existing groundwater wells from the SRC. This project will help reduce the scale of economic and job losses due to loss of drought and loss of Colorado River water deliveries. The project will start to help alleviate the pressure lost Colorado River water has placed on irrigation water availability for consumers in the district's service area. In the larger picture, the project will benefit multiple stakeholders throughout the Lower Colorado River Basin that are hydrologically interconnected, as outlined in the testimony presented to the Senate Committee on Energy and Natural Resources Subcommittee on Oversight on June 14, 2022 (Appendix A). Importantly, as discussed throughout this application, implementation of the Ak-Chin Settlement will provide legal certainty to water managers in Arizona and throughout the West that are looking at drought resilience solutions that include conveyance of groundwater and alternative surface water supplies of differing quality through federal canals.

Irrigated agriculture is the foundation of Pinal County's economy. The confluence surface water loss and well decoupling is dramatically disrupting Pinal County's economy. Funding this application will help to alleviate the economic pain, lessening job loss and lost revenue and income in a county that has been producing \$2.3 billion in farm and horticulture product annually. The project will benefit area tribes, and particularly the Ak-Chin, as depicted in Table

5, that have been historically disadvantaged. The irrigation district borders the Gila River Indian Community (GRIC) to the northeast and the Tohono O'odham Nation (TON) to the south. MSIDD has long worked with its Native American community neighbors to be good stewards of the areas waters resources.

**B. PLANNING AND PREPAREDNESS:** This funding request is MSIDD's highest priority. The money will fill a critical gap in continuing to build out essential infrastructure to ensure reliable access to groundwater and its conveyance to MSIDD customers by building drought resilient wells and piping. Everything is ready for this project to go, pending WaterSMART funding approval from Reclamation for a WaterSMART grant in the amount of \$546,495. MSIDD stands ready to pay the \$568,801 cost share match of this project's \$1,115,297 total cost.

<b>Table 5. MSIDD Disadvantaged Community Metrics</b>		
<b>Variable</b>	<b>Maricopa - Stanfield</b>	<b>Ak-Chin Indian Community</b>
Population	558	884
Low income, high and/or persistent poverty	MHI <sup>1</sup> \$22,230 39.3% Live in Poverty	MHI <sup>1</sup> \$25,391 34.7% Live in Poverty
High unemployment Employment Rate	11% 39.2%	15.1% 40.4%
Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities	29% Native American 71% Hispanic	100% Native American or Family Members
Linguistic isolation (Speak a Language Other Than English)	Spanish-speaking 44.7%	Native Language (O'odham) 27.8%
High housing cost burden and substandard housing	Substandard	Substandard
High transportation cost burden and/or low transportation access	No Public Transportation	Limited Public/Tribal Transportation
Disproportionate environmental stressor burden and high cumulative impacts	Poverty Level Magnify	Poverty Level Magnify
Limited water and sanitation access and affordability	Archaic System	Archaic System – High Salinity
Disproportionate impacts from climate change	Poverty Level Magnify	Poverty Level Magnify
High energy cost burden and low energy access	Utility Rates High	Utility Rates High
Access to healthcare	Limited, small clinic	HIS for BIA registered.



Medically Underserved	12.9% Without Healthcare Coverage 19.8% Disabled	19.2% Without Healthcare Coverage 18.6% Disabled
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**C. SEVERITY OF ACTUAL OR POTENTIAL DROUGHT IMPACTS TO BE ADDRESSED BY THE PROJECT.** It is difficult to exaggerate the severity of the drought-induced water supply losses MSIDD and Pinal County are facing. Arizona ranks first on the *Newsweek list of States With the Worst Droughts*, based on the percent of the state’s land area and percent of its population experiencing drought averaged over 20 years.<sup>3</sup> In March of this year (2023), the USDA designated Pinal County as a Primary Natural Disaster due to drought intensity values at 1) D2 Severe for 8 or more consecutive weeks or 2) D3 Drought-Extreme or D4 Drought-Exceptional.<sup>4</sup> The Colorado River Basin (Basin) is facing its twenty-first year of drought, including three of the driest years on record, and the resulting historically low levels at Lake Mead have led to the first ever Tier 2 shortage declaration for the Lower Colorado River Basin (Lower Basin). MSIDD and other irrigation districts in Pinal County lost 100 percent of their Colorado Water District allocations. Compounding the loss of surface water, the need to decouple 20 existing wells to comply with the Canal Settlement will prevent MSIDD from delivering significant volumes of available groundwater supplies if new infrastructure is not developed. This application is about reliability and resilience. The circumstances MSIDD faces require an urgent response to avoid potentially catastrophic results if more irrigation water is not added to the system immediately. Without funding for this well, Pima County’s irrigation ecosystem and agricultural economy face collapse.

**D. PRESIDENTIAL AND DOI PRIORITIES.** On September 22, 2022, Interior Secretary Haaland announced Interior’s commitment to “bringing *every* resource (emphasis added) to bear to help manage the drought crisis and provide a sustainable water system for families , businesses, and out vast and fragile ecosystems.” Ahead of the 2022 Indian Nation’s Summit, the Biden-Harris Administration announced its support for Support Indian Country and Native Communities. This project is one-hundred percent consistent with the importance the Administration places on solving water problems facing tribes in the West.<sup>5</sup> This project is consistent with Section 204 of the 2021 Executive Order on Tackling the Climate Crisis at Home and Abroad: “It is the policy of my Administration to lead the Nation’s effort to combat the climate crisis by example — specifically, by aligning the management of Federal procurement and real property, public lands and waters, and financial programs to support robust climate action. This application seeks funding to build water system infrastructure and drought resilience

<sup>3</sup> Newsweek.com (2021, Mar. 28) States with the Worst Droughts, Ranked. Newsweek.  
<https://www.newsweek.com/states-worst-droughts-ranked-1579076>

<sup>4</sup> USDA. USDA Designates Pinal County, Arizona as Primary Natural Disaster Areas  
[https://www.fsa.usda.gov/news-room/emergency-designations/2022/ed\\_2022\\_0719\\_rel\\_0097](https://www.fsa.usda.gov/news-room/emergency-designations/2022/ed_2022_0719_rel_0097)

<sup>5</sup> White House (2022) FACT SHEET: Biden-Harris Administration Announces New Actions to Support Indian Country and Native Communities Ahead of the Administration’s Second Tribal Nations Summit  
<https://www.whitehouse.gov/briefing-room/statements-releases/2022/11/30/fact-sheet-biden-harris-administration-announces-new-actions-to-support-indian-country-and-native-communities-ahead-of-the-administrations-second-tribal-nations-summit/>

into MSIDD's infrastructure. Additionally, because this project benefits areas of Pinal County that are identified as disadvantaged by the federal Climate and Economic Justice Screening tool and the Ak-Chin Indian Community, it also supports the goals of the 2023 Executive Order to Revitalize Our Nation's Commitment to Environmental Justice for All, the Justice40 initiative, and the Departments of Interior and Agriculture Joint Secretarial Order No. 3403 on Fulfilling the Trust Responsibility to Indian Tribes in the Stewardship of Federal Lands and Waters.

**E. READINESS TO PROCEED AND PROJECT IMPLEMENTATION.** The project is shovel ready, and MSIDD seeks to move ahead as expeditiously as possible, given the threat and need it faces. MSIDD can ensure the availability of its local match share of \$568,801.00. The local match will be paid using ratepayer revenue and through a cost-sharing arrangement with Electrical District No. 3 of Pinal County, Arizona under which MSIDD reimburses the electrical district for certain services. MSIDD General Manager Brian E. Yerges is also General Manager, Electrical District No. 3 of Pinal County, Arizona. Brian's dual positions as general manager assured seamless contract and financial management of the project. MSIDD understands all features of the project, including environmental review, and no bottlenecks to moving ahead with permitting, construction, pump testing and commissioning are anticipated. What is needed is \$546,495 in Reclamation WaterSMART program funding. MSIDD will provide the match share of 568,801 in meeting the total project cost of \$1,115,297.00.

As discussed, the project is ready to be mobilized. After receiving the NTP, a detailed Action Plan will list each task, the scheduled interval, the responsible party, comments, and when the task will be completed. MSIDD's Consultant, George Cairo Engineering, Inc. will complete the final design of the project elements. A consulting hydrogeologist will assist with the Arizona Department of Water Resources (ADWR) permitting process. Well registrations, Pinal County Road crossings, dust control, and utility companies (power, gas, water, fiber optics, etc.) will be obtained by MSIDD through ADWR permits. Once NEPA is completed and cleared for construction, the district will select a contractor and provide an NTP for the scope of work. Construction-wise, as with other new wells, the contractor will have to drill a hole, set up video monitoring, build casings with associated materials, install the pump and appurtenances, configure SCADA and above-ground piping with flowmeters, construct the well pad and electrical pads, and furnish electrical work to bring 3-phase power to the site. Construction will involve trenching for electrical conduits, installing electrical panels, commissioning, testing pumps, hauling off materials, and de-mobilizing. For pipeline installation, the contractor will mobilize, pre-plan, and purchase materials before mobilization to site, survey to stake the pipeline alignment, do site clearing, trenching, lay bedding material, and other activities related to pipeline construction.

**F. NEXUS WITH RECLAMATION.** This project has a direct nexus to the Bureau of Reclamation and multiple Reclamation facilities. First and foremost, MSIDD is a Reclamation contractor and the transferred work operator responsible under contract to operate the SRC. In addition, this project is needed, in part, to decouple existing wells from the Reclamation owned SRC and is critical to ensure Reclamation is able to continue delivering water to Ak-Chin pursuant to its water rights settlement with the United States. There is also a direct nexus with Reclamation because it ensures that the settlement between MSIDD and the Ak-Chin can be

implemented in a manner that protects Reclamation’s ability to convey groundwater through federal canals in Arizona and across the west.

**G. STAKEHOLDER SUPPORT.** This project is the product of widespread support at all levels. This project is MSIDD’s highest priority as part of the larger Santa Rosa Canal well and alternative conveyance initiative. Appendix C presents a resolution endorsing this project by the MSIDD Board of Directors. Appendix C also presents letters of support for this project by Arizona’s two United States senators, Senator Krysten Sinema and Senator Mark Kelly, and Pinal County Supervisor Stephen Miller.

## 5. Budget and Budget Narrative

**Table 1. —Summary of Non-Federal and Federal Funding Sources**

Table 1 presents the project’s funding broken down into non-federal and Bureau sources. The total project budget is \$1,115,297.00. Non-federal spending is the \$568,000 share that MSIDD will pay, with Requested Reclamation Funding of \$546,490.

<b>Table 1. — Summary of Non-Federal and Federal Funding Sources</b>	<b>AMOUNT</b>
<b>Non-Federal Entities</b>	
Maricopa-Stanfield Irrigation and Drainage District	\$568,801.47
2.	\$
3.	\$
<b>Non-Federal Subtotal</b>	\$568,801.47
<b>REQUESTED RECLAMATION FUNDING</b>	\$ 546,495.53

## Budget Narrative

The principal costs by classification for this project are presented in Table 6, BUDGET INFORMATION – Construction Programs. The costs are costs usual to well and pipeline construction.

Justification of the budget items is as follows:

1. Administrative and Legal Expenses: An expense of \$6,000 is budgeted for legal descriptions, surveying, and mapping.

4. Architectural and Engineering Fees: An expense of \$60,000 is budgeted to hire a consulting engineer to design and engineer the well and pipeline.
5. Other Architectural and Engineering Fees: An expense of \$30,000 is budgeted to hire a contractor for environmental review and permitting. An expense of \$30,000 is budgeted to hire a consulting hydrologist.
6. Project inspection fees are included in the construction budget.
9. Construction: Construction is budgeted at \$1,019,297.00, based on estimates received from contractors. Construction costs include all costs for materials, equipment, labor, and transportation incurred by the construction contractor. The contractor that provided the construction estimate included the contingency in the construction estimate so we do not have a separate contingency to report.
13. Contingency: The contractor that provided the construction estimate included the contingency in the construction estimate so we do not have a separate contingency to report.

Additional budget detail for this project is presented in Appendix D, the MSIDD Budget Book.

## **Appendix C.**

### **Letters of Support**

- Resolution endorsing this project by the MSIDD Board of Directors
- Letter of support from Arizona U.S. Senator Krysten Sinema and Arizona U.S. Senator Mark Kelly
- Letter of Support from Pinal County Supervisor Stephen Q. Miller



## **RESOLUTION 2023-007**

### **RESOLUTION OF THE BOARD OF DIRECTORS OF THE MARICOPA-STANFIELD IRRIGATION & DRAINAGE DISTRICT PINAL COUNTY, ARIZONA**

#### **IN SUPPORT OF AN APPLICATION TO THE WATERSMART DROUGHT RESPONSE PROGRAM: DROUGHT RESILIENCY PROJECTS FOR FISCAL YEAR 2024 OPPORTUNITY NUMBER R24AS00007**

**WHEREAS, Maricopa-Stanfield Irrigation & Drainage District (“the District”) desires to improve District facilities for the purpose of improved efficacy of water delivers, sustainable water management and for drought resiliency; and**

**WHEREAS, the District wishes to apply for grant funding opportunities to reduce the financial burden and aid in the sustainability of the District and its customers through these grant programs and which also supports the Ak-Chin Indian Community Santa Rosa Canal settlement.**

**NOW, THEREFORE, IT IS HEREBY RESOLVED, by the Board of Directors (the “Board”) of Maricopa-Stanfield Irrigation & Drainage District (the “District”) as follows:**

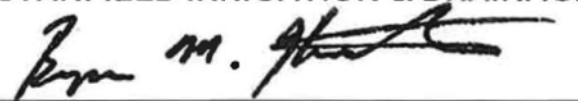
- 1. That the application for a United States Department of the Interior Bureau of Reclamation WaterSMART grant for Drought Resiliency Projects pursuant to Funding Opportunity Number R24AS00007 (the “Grant”) by the District for the District to install a new well and pipeline segment for within the District for groundwater augmentation to address drought conditions is hereby approved.**
- 2. That Brian Yerges, General Manager, and / or Kenneth Bodle, Director of Financial Services are hereby authorized to submit the application for the Grant and to execute any and all documents, instruments, and reports necessary or appropriate to apply for, obtain, use the Grant, and report on grant expenditures and programs.**
- 3. That General Manager, Brian Yerges, is hereby authorized to expend up to \$600,000 of District monies for the Project, which monies the Board finds are**

available for this purpose, and to apply the Grant to the costs of the Project.

4. That the District will work with the United States Bureau of Reclamation to meet established deadlines for entering into a grant or cooperative agreement.

Adopted this 25th Day of October, 2023.

**MARICOPA-STANFIELD IRRIGATION & DRAINAGE DISTRICT**



**BRYAN HARTMAN, PRESIDENT**

MSIDD RESOLUTION NO. 2023-007

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**CERTIFICATION**

I, the undersigned, Secretary of the Maricopa-Stanfield Irrigation & Drainage District, Pinal County, Arizona, an irrigation district organized and existing under the laws of the State of Arizona, do hereby certify that the foregoing is a true and complete copy of a resolution duly adopted by the Board of Directors of said District at a meeting duly called and held on October 25<sup>th</sup>, 2023 at which a quorum of Directors was present; I do further certify that this resolution has not been altered, amended, repealed or rescinded and is in full force and effect.

Dated this 25<sup>th</sup> Day of October, 2023.

Dated this 20 day of October, 2023.

**MARICOPA-STANFIELD IRRIGATION & DRAINAGE DISTRICT**



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**KELLY ANDERSON, SECRETARY**

**United States Senate**  
WASHINGTON, DC 20510-0309

October 20, 2023

The Honorable Camille Touton  
Commissioner  
Bureau of Reclamation  
1849 C Street NW  
Washington, DC 20240

Dear Commissioner Touton:

We write regarding the Maricopa-Stanfield Irrigation and Drainage District's (MSIDD) applications for \$1,115,297 and \$997,136 in funding through the WaterSMART Drought Resiliency program to construct new groundwater infrastructure for agricultural communities. Federal funding will allow MSIDD to ensure farmers reliant on the Colorado River Basin have increased access to critical water resources for food and fiber production.

The Tier 1 shortage declaration for the Colorado River has effectively halted surface water deliveries to Pinal County agricultural users, making them the first to experience reduced water deliveries from the Colorado River in the Basin. The repercussions of these cuts are being felt throughout Arizona farming communities, including significant land fallowing, economic hardship, and job loss. A settlement reached between MSIDD, the Central Arizona Irrigation and Drainage District, and the Ak-Chin Indian Community to stop the transportation of groundwater through the Santa Rosal Canal underscores the need for immediate action. Therefore, MSIDD's proposed investments in two new wells, as well as conveyance facilities, will be crucial for regional water management. The two wells and accompanying pipeline segments will mitigate the impacts of drought and fortify our region's climate resilience.

The federal funding that MSIDD seeks is critical for ensuring Arizona's ability to maintain food security and drought resiliency. In accordance with all existing agency rules, regulations, and ethical guidelines, we respectfully ask that you give this proposal full and fair consideration as you make this important funding decision. Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kyrsten Sinema", with a long horizontal flourish extending to the right.

**Kyrsten Sinema**  
United States Senator

A handwritten signature in blue ink, appearing to read "Mark Kelly", with a stylized, cursive script.

**Mark Kelly**  
United States Senator



Stephen Q. Miller  
Pinal County Board of Supervisors  
Supervisor, District 3



September 20, 2023

The Honorable Camille Calimlim Touton  
Commissioner  
Bureau of Reclamation  
1849 C Street NW  
Washington, DC 20240

Dear Commissioner Touton,

Please accept this letter supporting the applications of the Maricopa-Stanfield Irrigation and Drainage District (MSIDD) for grants from the WaterSMART Drought Resiliency Program. As you know, the severe drought in the Colorado River Basin has led to the first ever Tier 1 shortage declaration, resulting in reduced water deliveries to Pinal County Agricultural water users. The impacts of these cuts are widespread, and failure to act quickly to develop reliable groundwater and conveyance infrastructure will result in further impacts for Pinal County and beyond.

The projects proposed in the MSIDD application will prevent additional land fallowing by ensuring that facilities exist to provide groundwater to farms currently at risk of completely losing access to water for irrigation due to the loss of surface water, location of existing well, and/or efforts to phase out conveyance of groundwater through the Santa Rosa Canal (SRC). The grants would be used to construct alternative conveyance for groundwater currently conveyed through the Santa Rosa Canal, modernization of existing wells and drilling of new wells, and upgrading existing SRC gates to prevent losses. The applications submitted by MSIDD are critical to ensure Pinal County can continue to produce food for our nation and reduce further economic dislocation in our County. I urge you to view these applications favorable.

Sincerely,

Stephen Q. Miller  
Pinal County Board of Supervisors, District 3