



BOARD OF SUPERVISORS AGENDA ITEM REPORT AWARDS / CONTRACTS / GRANTS

☐ Award ☐ Contract ☒ Grant

Requested Board Meeting Date: March 5, 2024

* = Mandatory, information must be provided

or Procurement Director Award: ☐

***Contractor/Vendor Name/Grantor (DBA):**

Arizona Department of Emergency and Military Affairs

***Project Title/Description:**

Hazard Mitigation Grant Program, HMGP DR-4524-009-015R

***Purpose:**

The Purpose is to install two (3-4MW) all-weather emergency standby generator skids with a minimum 24 hour fuel storage capacity at Tres Rios Wastewater (TRW) Facility. The generators will ensure TRW power resiliency to mitigate future damages from "all-hazard" incidents, whether natural or human-caused, that result in a main grid outage. Funding is through the Hazard Mitigation Grant Program, which is a Federal Emergency Management Agency (FEMA) program passed through the Arizona Department of Emergency and Military Affairs (DEMA). The Project award is \$4,699,695.04 (Federal Share) (90%) with a minimum \$522,183.34 (Pima County RWRD) (10%). The award additionally includes \$30,116.62 (Federal Share) (100%) for management costs.

***Procurement Method:**

Not applicable.

***Program Goals/Predicted Outcomes:**

The TRW Power Resiliency Project goal is to maintain Critical Infrastructure wastewater services in a long-term/widespread power outage. Wastewater essential function operations are imperative for the protection of public health and environment in a service area that supports a population of nearly 800,000 inhabitants. TRW is vulnerable to the loss of power due to natural disasters such as extreme heat or severe wind damage to the external power grid or internal substation incapacitation. If main grid power to TRW is lost for >24-hours, two critical issues will occur: (1) The Headworks process will be unable to receive TRW/Agua Nueva Wastewater (ANW) Facility influent and untreated sewage/sludge flow will divert to the Emergency Overflow Basins with limited storage capacity of 12 to 24 hours. (2) TRW will be unable to operate process equipment necessary to treat wastewater and sustain critical treatment biology. Risk consequences include: Loss of Service; Discharge of Untreated Sewage to the Santa Cruz River; Federal/State Permit Violations; Risk to Public Health and the Environment. The TRW Power Resiliency Project solution is the purchase and installation of two (2) All-Weather standby generator skids (3-4MW each) with a minimum of 24-hour fuel storage capacity.

***Public Benefit:**

Critical Infrastructure resilience, minimization of adverse public health and environmental consequences.

***Metrics Available to Measure Performance:**

The Project Implementation Milestones are monitoring strategies with specific evaluation elements to measure progress and ensure the project to install two 3-4MW generators is executed as designed. Key Project Milestone progress steps include completion of: (1) bid solicitation and documentation parameters; (2) project construction, installation of generators, acceptance and testing including shut-down, load test and solar sync; (3) employee training, permits, expand contract for quarterly generator testing and fuel and maintenance schedules, and (4) finalization of closeout tasks, inspections and, DEMA/FEMA and Pima County sign-off. Project design will be in accordance with relevant industry standards to accomplish the intended risk reduction.

***Retroactive:**

Yes. FEMA sets the Project start date in their Application Approval letter as January 22, 2024. RWRD worked expeditiously to place this award on the first available Board of Supervisors agenda. Failure to accept the award jeopardizes the County's ability to implement a critical infrastructure resilience project.

6MCE apprv's
RM 2/16/24

THE APPLICABLE SECTION(S) BELOW MUST BE COMPLETED

Click or tap the boxes to enter text. If not applicable, indicate "N/A". Make sure to complete mandatory (*) fields

Contract / Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____
Commencement Date: _____ Termination Date: _____ Prior Contract Number (Synergen/CMS): _____
☐ Expense Amount \$ _____ * ☐ Revenue Amount: \$ _____

***Funding Source(s) required:** _____

Funding from General Fund? ☐ Yes ☐ No If Yes \$ _____ % _____

Contract is fully or partially funded with Federal Funds? ☐ Yes ☐ No

If Yes, is the Contract to a vendor or subrecipient? _____

Were insurance or indemnity clauses modified? ☐ Yes ☐ No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number? ☐ Yes ☐ No

If Yes, attach the required form per Administrative Procedure 22-10.

Amendment / Revised Award Information

Document Type: _____ Department Code: _____ Contract Number (i.e., 15-123): _____

Amendment No.: _____ AMS Version No.: _____

Commencement Date: _____ New Termination Date: _____

Prior Contract No. (Synergen/CMS): _____

☐ Expense ☐ Revenue ☐ Increase ☐ Decrease

Amount This Amendment: \$ _____

Is there revenue included? ☐ Yes ☐ No If Yes \$ _____

***Funding Source(s) required:** _____

Funding from General Fund? ☐ Yes ☐ No If Yes \$ _____ % _____

Grant/Amendment Information (for grants acceptance and awards)

☒ Award ☐ Amendment

Document Type: GTAW Department Code: WW Grant Number (i.e., 15-123): 24*116

Commencement Date: January 22, 2024 Termination Date: March 22, 2025 Amendment Number: _____

☒ Match Amount: \$ 522,183.34 ☒ Revenue Amount: \$ 4,729,811.66 (90% Fed Share + Mgmt Costs)

***All Funding Source(s) required:** Department of Homeland Security (FEMA); Pima County RWRD Enterprise Fund

***Match funding from General Fund?** ☐ Yes ☒ No If Yes \$ _____ % _____

***Match funding from other sources?** ☒ Yes ☐ No If Yes \$ 522,183.34 % 10

***Funding Source:** RWRD Enterprise Funds

***If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?**

Federal funds will be passed through the Arizona Department of Emergency and Military Affairs

Contact: Rita Mercer

Department: RWRD

Telephone: 520-724-6359

Department Director Signature: _____

Date: 2/17/24

Deputy County Administrator Signature: _____

Date: 2/20/2024

County Administrator Signature: _____

Date: 2/21/24



Katie Hobbs
GOVERNOR

STATE OF ARIZONA
DEPARTMENT OF EMERGENCY AND MILITARY AFFAIRS

5636 East McDowell Road
Phoenix, Arizona 85008-3495
(602) 267-2700 DSN: 853-2700



Major General Kerry L. Muehlenbeck
THE ADJUTANT GENERAL

2/6/2024

Rita Mercer
Emergency Planning Manager
Pima County
201 N. Stone Avenue, 3rd Floor Tucson AZ, 85701

Subj: Hazard Mitigation Grant Program Award Notification
HMGP DR-4524-009-015R, FIPS Code: 019-99019, Supplement 5

Dear Rita,

Congratulations, Pima County, RWRD Tres Rios WRF Microgrid Generator & Solar Power Resiliency Project has been awarded under Hazard Mitigation Grant Program. Your award is **\$4,699,695.04** (Federal Share) (90%), with a minimum **\$522,183.34** (Non-Federal Share) (10%) match requirement. Additionally, your award includes **\$30,116.62** (Federal Share) (100%) for management costs.

Please review the attached Hazard Mitigation Grant Program award package. This will provide you with standard requirements that apply to your organization in accepting this award. The Period of Performance (POP) for the project will be January 22, 2024 to March 22, 2025.

Pima County must submit Quarterly Reports to the Department of Emergency and Military Affairs Division of Emergency Management (DEMA/EM), due no later than the 15th of January, April, July and October, for activities which occurred the three months prior to the quarterly report due date. The first Quarterly Report will be due on April 15, 2024, even if the work has not yet started.

Requirement – You must, prior to awarding any contract, conduct a review for suspension/debarment of your anticipated contractor. Proof of your review (see Contractor Debarment and Suspension Form on debarment-suspension tab in your award package) must be completed and a copy sent to DEMA Mitigation, prior to the awarding the contract to a contractor.

As per the application submitted by your agency, Rita Mercer is the designated Applicant Agent and will be copied on all critical correspondence. Standard project information requests will be sent primarily to the Point of Contact that you earlier designated, POC. Please notify us immediately if either of these two positions change and/or if you wish to be copied on all correspondence.

Regarding changing the Applicant Agent, please complete the provided form and attach the resolution in which your governing board has approved said person.

If you have any questions regarding this award, please e-mail mitigation@azdema.gov / (602) 464-6499.

Sincerely,

Andrew Traylor

Andrew Traylor

State Hazard Mitigation Officer

Attached:

Copy of the FEMA Award Letter
Applicant Agent Form
DEMA Mitigation Quarterly Report Form
Request for Payment (RFP) Form
Project Change Request Form
Contractor Debarment and Suspension Form
Risk Assessment Form
FFATA Grant Reporting Certification Form

SUBRECIPIENT AGREEMENT BETWEEN

Pima County

AND

The Arizona Department of Emergency and Military Affairs

FOR

Hazard Mitigation Grants Program – HMGP DR-4524-009-015R

WHEREAS, A.R.S. 26-306(B)(1) and 26-312 charges the Arizona Department of Emergency and Military Affairs (DEMA) with the responsibility of administering funds.

THEREFORE, it is agreed that DEMA shall provide funding to Pima County (“Subrecipient”) under Catalogue of Federal Domestic Assistance (CFDA) # 97.039 under the terms of this Subrecipient Agreement (Agreement).

1. **PURPOSE OF AGREEMENT** - The purpose of this Agreement is to specify the rights and responsibilities of DEMA in administering the distribution of Hazard Mitigation Assistance Grant (HMA) funds to Subrecipient, and to specify the rights and responsibilities of Subrecipient as the recipient of these funds.
2. **TERM OF AGREEMENT** - This Agreement shall become effective on January 22, 2024 and shall terminate on March 22, 2025. The rights and responsibilities of DEMA and Subrecipient as described herein will survive termination of this agreement.
3. **DESCRIPTION OF SERVICES, SUPPLIES AND EQUIPMENT** - Subrecipient shall use the funds provided under this Agreement solely for the purposes for which these funds have been provided, as documented by the Subrecipient's grant application as approved by the Federal Emergency Management Agency (FEMA) and DEMA, a copy of which is attached as Exhibit.
 - a. The HMGP program covers eligible costs from January 22, 2024, to March 22, 2025 (the “Agreement Period”). The funds awarded in the grant agreement shall only be used to cover allowable costs that are incurred during the Agreement Period. Allowable costs are defined in the 2015 Hazard Mitigation Assistance Guidance, 2 CFR Part 200, and by this Agreement.
 - b. Finance & Administration - Subrecipient shall provide DEMA with complete documentation of all expenditures of funds provided under this Agreement as soon as such documentation becomes available to Subrecipient. Subrecipient shall provide all necessary financial and managerial resources to meet the terms and conditions of receiving funds under this Agreement. DEMA does not manage or take responsibility for the Subrecipient's projects, and monitors projects (with regard to program eligibility and other requirements) only in order to protect the State's interests.
 - i. The HMGP program has a 10% cost match (cash or in kind) requirement, pursuant to sections 203(h) (42 USC 5133(h)) and 404(a) (42 USC 5170c) of

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the Robert T. Stafford Disaster Relief and Emergency Assistance Act, (Pub. L. No. 93-288), as amended, (42 U.S.C. 5121 et seq.).

- ii. Federal funds cannot exceed 90% of eligible costs. Unless otherwise authorized by law, federal funds cannot be matched with other federal funds. All funds received by Subrecipient through DEMA under this Agreement are agreed to be federal matching funds; Subrecipient shall be solely responsible for providing the other 10% (cash or in-kind) in order to obtain these federal matching funds.
- iii. The Federal Emergency Management Agency (FEMA) administers cost matching requirements in accordance with 2 CFR. 200.306, and Subrecipient contributions must meet the standards of 2 CFR. 200.306 and all other applicable federal law.

4. **MANNER OF FINANCING** - DEMA shall:

- a. Provide up to \$4,699,695.04 to the Subrecipient for 90% of the costs expended for approved services, supplies and equipment, as referenced as in the 2015 Hazard Mitigation Assistance Guidance and 2 CFR Part 200. Provide up to \$30,116.62 to the subrecipient for 100% of the costs expended for management costs in accordance with the 2015 Hazard Mitigation Assistance Guidance and 2 CFR part 200. Subrecipient will use the funds provided by DEMA and the matching contribution made by the Subrecipient to acquire the services, supplies and equipment identified in Part 3, DESCRIPTION OF SERVICES, SUPPLIES, AND EQUIPMENT, of this Agreement.
- b. Payment made by DEMA to Subrecipient shall be on a reimbursement basis only and is conditioned upon receipt of proof of payment or other form of contribution, consisting of applicable, accurate and complete documentation, as determined by DEMA in its sole discretion. A listing of acceptable documentation is attached as Exhibit 4(b).

5. **FISCAL RESPONSIBILITY** - For any funds received under this Agreement for which expenditure is disallowed by an audit exemption or otherwise by DEMA, the State, or Federal government, Subrecipient shall reimburse said funds to DEMA immediately.

6. **FINANCIAL AUDIT/PROGRAMATIC MONITORING** - Subrecipient shall comply with A.R.S. 35-214 and 35-215.

- a. Pursuant to 2 CFR. 200.501, if Subrecipient expends \$750,000 or more from all federal funding sources during the fiscal year, Subrecipient shall submit an organization-wide financial and compliance audit report per Subpart F of 2 CFR Part 200. Failure to comply with any requirements imposed as a result of an audit will suspend the release of federal funds by DEMA to Subrecipient until Subrecipient has met all such requirements.
- b. Subrecipient will be monitored periodically by DEMA, both programmatically and financially, to ensure that the project goals, objectives, performance requirements, timelines, milestone completion, budgets, and other related program criteria are being met. Monitoring will be accomplished through a combination of office-based reviews and onsite monitoring visits. Monitoring may involve aspects of the work involved under this Agreement including but not limited to the review and analysis of financial, programmatic, equipment, performance and administrative issues relative to each program, and may identify areas where technical assistance and other support may be needed. Subrecipient shall participate in and cooperate with all such monitoring by

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DEMA, and shall provide access to all personnel, documents, and other records as may be requested from time to time by DEMA. Subrecipient also shall comply with all requests of DEMA that DEMA deems necessary to assure the parties' compliance with their obligations under this Agreement, including but not limited to circumstances in which DEMA is required or requested to provide information or records to FEMA or to any state or federal auditor; in such event, Subrecipient shall cooperate with DEMA and shall provide DEMA with all information and records necessary for DEMA to comply with any such request or requirement.

7. **APPLICABLE LAWS AND REGULATIONS** - Subrecipient must comply with all applicable Arizona and Federal law, whether or not specifically cited or referenced in this Agreement, and including but not limited to, as applicable, (1) 2 CFR. 200.0 through 200.345 (general provisions and requirements); (2) 200.400 through 200.475 (cost principles); (3) 200.500 through 200.521 (audit requirements); (4) the Appendices to 2 CFR. Part 200; and (5) 2 CFR. 3002.10. Subrecipient also must comply with all applicable Indian, Tribal, and local laws, implementing regulations, and Executive Orders.
8. **OTHER APPLICABLE REQUIRED STANDARDS** - In addition to complying with all applicable Federal and Arizona statutes and regulations, Subrecipient shall:
 - a. Comply with the NOFO;
 - b. Large equipment purchases must be identified and explained. Federal property management standards for equipment must be complied with. See 2 CFR 200.33; 2 CFR 200.48; 2 CFR 200.89; and 2 CFR 200.313. See https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title02/2cfr200_main_02.tpl;
 - c. Prepare, retain, and be prepared to produce for examination by DEMA and/or FEMA, all records of all activities relating to this Agreement, to the extent necessary to comply with the requirements set forth in 2 CFR Chapter II, Subpart F (2 CFR 200.500 *et seq.*) and OMB Circular A-133, available at <https://www.whitehouse.gov/omb/information-for-agencies/circulars/#numerical>;
 - d. Comply with all applicable Federal, State, and Local environmental and historic preservation (EHP) requirements and shall provide any information requested by FEMA to ensure compliance with applicable laws including but not limited to: the National Environmental Policy Act (NEPA; 42 U.S.C. 4321 *et seq.*); the National Historic Preservation Act (NHPA; 54 U.S.C. 300101 *et seq.*, and 305501 *et seq.*); the Endangered Species Act (ESA; 7 U.S.C. 136 *et seq.*; and 16 U.S.C. 1531 *et seq.*), and Executive Orders on Floodplains (11988; see <https://www.fema.gov/executive-order-11988-floodplain-management>), Wetlands (11990; see <https://www.fema.gov/executive-order-11990-protection-wetlands-1977>) and Environmental Justice for Low Income & Minority Populations (12898; see <https://www.fema.gov/executive-order-12898-environmental-justice-low-income-minority-populations-1994>). Subrecipient shall not undertake any project having the potential to impact EHP resources without express prior written approval obtained through DEMA. Subrecipient must comply with all conditions placed on the project as the result of the EHP review. Any subsequent change to the project scope of work will require re-evaluation for compliance with these EHP requirements. If ground disturbing activities occur during project implementation, Subrecipient must ensure monitoring of ground disturbance and if any potential archeological resources are discovered, Subrecipient must immediately cease construction in that area and notify DEMA and

the appropriate State Historic Preservation Office. Procurement and construction activities shall not be initiated prior to the full EHP review being completed by FEMA Office of Environmental and Historic Preservation.

- e. Mitigation activities must adhere to all relevant statutes, regulations, and requirements, including:
 - i. Sections 203 (42 USC 5133; Pre-Disaster Hazard Mitigation ("PDM")) and 404(a) (42 USC 5170c(a); Hazard Mitigation Grant Program ("HMGP")) of the Stafford Act;
 - ii. Section 4104c (Flood Mitigation Assistance) of the National Flood Insurance Act of 1968 (42 USC 4104c);
 - iii. Section 322 of the Stafford Act (Mitigation Planning; 42 USC 5165);
 - iv. Section 324 of the Stafford Act (Management Costs; 42 USC 5165b);
 - v. The National Historic Preservation Act, 54 U.S.C. 300101 *et seq.*;
 - vi. The National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*;
 - vii. Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 42 USC 4601 *et seq.*, implemented through 49 CFR Part 24, 49 CFR 24.1 *et seq.*;
 - viii. Floodplain Management and Protection of Wetlands (44 CFR Part 9, 44 CFR 9.1 *et seq.*), implementing and enforcing Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands;
 - ix. The Coastal Barriers Resources Act, 16 USC 3501 *et seq.*, and 44 CFR Part 206, Subpart J, 44 CFR 206.340 *et seq.*;
 - x. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards "Super Circular," currently located at <https://www.cottoncpa.com/wp-content/uploads/2016/07/OMB-Super-Circular-Doc.pdf>;
 - xi. OMB Circular A-110;
 - xii. Floodplain Management (44 CFR Part 60, 44 CFR 60.1 *et seq.*);
 - xiii. Flood Mitigation Grants (44 CFR Part 79, 44 CFR 79.1 *et seq.*);
 - xiv. Property Acquisition and Relocation for Open Space (44 CFR Part 80, 44 CFR 80.1 *et seq.*);
 - xv. Hazard Mitigation Planning (44 CFR Part 201, 44 CFR 201.1 *et seq.*);
 - xvi. Hazard Mitigation Grant Program (44 CFR Part 206, Subpart N, 44 CFR 206.430 *et seq.*);
 - xvii. Management Costs (44 CFR Part 207, 44 CFR 207.1 *et seq.*);
 - xviii. OMB Circular A-94, Guidelines and Discount Rates for Benefit-Cost Analysis of Federal Programs;
 - xix. Audits of States, Local Governments, and Non-Profit Organizations (2 CFR Part 200, 2 CFR 200.0 *et seq.*); and
 - xx. Federal Acquisition Regulations (FAR) Subpart 31.2, Contracts with Commercial Organizations, 48 CFR 31.201 *et seq.*

- 9. **CONTRACTORS/SUBCONTRACTORS** - Subrecipient may enter into written subcontract(s) for performance of certain of its functions under this Agreement in accordance with terms established under Arizona and Federal law. Subrecipient agrees and understands that no subcontract that Subrecipient enters into with respect to performance under this Agreement shall in any way relieve Subrecipient of any responsibilities for performance of its duties.

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Subrecipient shall give DEMA immediate notice in writing by certified mail of any action or suit filed and prompt notice of any claim made against Subrecipient by any subcontractor or vendor with respect to any work on any project funded in whole or in part under this Agreement.

10. **PERSONNEL AND TRAVEL COSTS** - All grant funds expended for personnel, travel, lodging, and per diem must be consistent with the Subrecipient's policies and procedures and the State of Arizona Accounting Manual (SAAM; see <https://gao.az.gov/publications/saam>); must be applied uniformly to both federally financed and other activities of the Subrecipient; and will be reimbursed at the most restrictive allowability and rates. At no time will Subrecipient's reimbursement(s) exceed the State rate established by the Arizona Department of Administration in the SAAM.
11. **PROCUREMENT** - Subrecipient shall comply with all of its own procurement rules/policies, all Federal procurement rules/policies (including but not limited to those outlined in this section VII of this Agreement), and all Arizona procurement code provisions and rules. The intent is that all procurement contracts be awarded competitively, and the Subrecipient shall not enter into any noncompetitive (sole or single source) procurement unless express prior written approval is granted by DEMA.
12. **NONSUPPLANTING AGREEMENT** - Subrecipient shall not use funds obtained under this Agreement to supplant State or Local funds or other resources that would otherwise have been made available for any program/project funded in whole or in part under this Agreement.
13. **COMPLIANCE WITH STATE AND FEDERAL LAWS REGARDING IMMIGRATION-**
 - a. Subrecipient warrants its compliance with all State and Federal immigration laws and regulations relating to its employees and to employees of any contractor or subcontractor retained through Subrecipient to provide goods or services related to this Agreement, including but not limited to A.R.S. 23-214 and 41-4401.
 - b. A breach of a warranty by Subrecipient regarding compliance with State or Federal immigration laws or regulations shall be deemed a material breach of this Agreement by Subrecipient and may result in action by DEMA up to and including termination of this Agreement.
 - c. DEMA retains the legal right to inspect the papers of any Subrecipient employee who works on the Agreement, and those of any employee of any contractor or subcontractor retained through Subrecipient to provide goods or services related to this Agreement, to ensure that Subrecipient is complying with the warranty under paragraph (a) above.
14. **PROPERTY CONTROL** - Effective control and accountability must be maintained by Subrecipient for all equipment and supplies acquired by Subrecipient under this Agreement. Subrecipient must adequately safeguard all such property and must assure that it is used for authorized purposes as described in the 2015 Hazard Mitigation Assistance Guidance, the grant application as approved, and the CFR. Subrecipient shall exercise caution in the use, maintenance, protection and preservation of such property.
 - a. Equipment acquired by Subrecipient with funds obtained in whole or in part under this Agreement shall be used by Subrecipient in the program or project for which it was acquired as long as needed, whether or not the program or project continues to be

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- supported by funds obtained in whole or in part under this Agreement. Theft, destruction, or loss of such property shall be reported to DEMA immediately.
- b. Nonexpendable Property is personal property that is complete in itself, does not lose its identity or become a component part of another article when put into use; is durable, with an expected service life of two years or more; and that has a unit cost of more than \$500. (48 CFR 752.245-70(a)(3)).
 - c. Capital Assets are any tangible or intangible assets used in operations having a useful life of more than one year which are capitalized in accordance with GAAP. Capital assets include: (a) Land, buildings (facilities), equipment, and intellectual property (including software) whether acquired by purchase, construction, manufacture, lease-purchase, exchange, or through capital leases; and (b) Additions, improvements, modifications, replacements, rearrangements, reinstallations, renovations or alterations to capital assets that materially increase their value or useful life (not ordinary repairs and maintenance). (2 CFR 200.12).
 - d. A Property Control Form shall be maintained for the entire scope of the program or project for which property was acquired through the end of its useful life and/or disposition. All Nonexpendable Property and Capital Assets must be included on the Property Control Form. Subrecipient shall provide DEMA a copy of the Property Control Form at the end of period of performance or no more than ninety (90) calendar days after the end of the Agreement. The Property Control Form shall be updated, and a copy provided to DEMA no more than forty-five (45) calendar days after equipment disposition. Subrecipient agrees to be subject to equipment monitoring and auditing by state or federal authorized representatives to verify information.
 - e. A physical inventory of the Nonexpendable Property and Capital Assets must be taken, and the results reconciled with the Property Control Form at least once every two years.
15. **DEBARMENT CERTIFICATION** - Subrecipient is subject to the non-procurement debarment and suspension regulations implementing Executive Orders 12549 and 12689, and 2 C.F.R. Part 180. These regulations restrict awards, subawards, and contracts with certain parties that are debarred, suspended, or otherwise excluded from or ineligible for participation in federal assistance programs or activities. The Subrecipient is required to complete and return the provided Contractor Debarment and Suspension Form, attached as Exhibit 15(a), to demonstrate due diligence in following this requirement.
16. **FUNDS MANAGEMENT** - Subrecipient must maintain funds received under this Agreement in a separate account and cannot mix these funds with funds from other sources. Subrecipient must manage funds according to applicable Federal regulations for administrative requirements, costs principles, and audits (2 CFR 200.302). Subrecipient must maintain adequate business systems to comply with Federal requirements.
17. **REPORTING REQUIREMENTS** - Regular reports by Subrecipient shall include:
- a. Programmatic Reports- Subrecipient shall provide quarterly programmatic reports to DEMA on the 15th day of the quarter in which the report is due. So that the report contains such information as deemed necessary by DEMA, Subrecipient shall use and fully complete the Mitigation Grant Programs Quarterly Report template, a copy of which is attached as Exhibit 17(a).

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- i. If a project has been fully completed and implemented, and there will be no further updates, then the quarterly programmatic report for the quarter in which the project was completed will be sufficient as the final report. The report must be marked as "final." Quarterly programmatic reports shall be submitted to DEMA until the entire scope of the Grant is completed.
- ii. Upon request of DEMA, Subrecipient must provide to DEMA any information necessary to meet any state or federal reporting requirements.
- iii. Quarterly Programmatic reports are due:

Quarter	Period	Due
1	July 1 – September 30	October 15
2	October 1 – December 31	January 15
3	January 1- March 31	April 15
4	April 1 – June 30	July 15

- b. Financial Reimbursements - Subrecipient shall provide DEMA with quarterly requests for reimbursement. Requests for reimbursements shall be submitted with the Request for Payment provided by DEMA, a copy of which is attached as Exhibit 17(b).
 - i. Subrecipient shall submit to DEMA a final request for reimbursement for expenses received and invoiced prior to the end of the termination of this Agreement no more than thirty (30) calendar days after the completion of all work funded in whole or in part by the Agreement. Requests for reimbursement received by DEMA later than the thirty (30) days will not be paid. The final reimbursement request as submitted shall be marked "final" by Subrecipient.
 - ii. DEMA requires that all requests for reimbursement be submitted electronically to the State Hazard Mitigation Officer or via U.S. mail (United States Postal Service), FedEx, UPS, or another established private delivery service.
 - iii. DEMA reserves the right to request and/or require any supporting documentation and/or information DEMA believes necessary in order to process requests for reimbursements. Subrecipient shall promptly provide DEMA with all such documents and/or information.
 - iv. All reports shall be submitted by Subrecipient to the DEMA contact person as described in Part 44, NOTICES, of this Agreement.

18. **ASSIGNMENT AND DELEGATION** - Subrecipient may not assign any rights hereunder without the express, prior written agreement of both parties.

19. **AMENDMENTS** - Any change in this Agreement including but not limited to the Description of Services and budget described herein, whether by modification or supplementation, must

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be accomplished by a formal Agreement amendment signed and approved by and between the duly authorized representatives of Subrecipient and DEMA.

- a. Any such amendment shall specify:
 - i. an effective date;
 - ii. increases or decreases in the amount of Subrecipient's compensation if applicable;
 - iii. be titled as an "Amendment,"
 - iv. Subrecipient expressly and explicitly understands and agrees that no other method of communication, including any other document, correspondence, act, or oral communication by or from any person, shall be used or construed as an amendment or modification or supplementation to this Agreement.

20. **AGREEMENT RENEWAL** - This Agreement shall not bind nor purport to bind DEMA for any contractual commitment in excess of the original Agreement period, which may not be changed except by a writing signed by all parties hereto in conformity with Part 19, AMENDMENTS.

21. **RIGHT TO ASSURANCE** - If DEMA in good faith has reason to believe that Subrecipient does not intend to or is unable to perform or continue performing under this Agreement, DEMA may demand in writing that Subrecipient give a written assurance of intent and ability to perform. If Subrecipient fails to provide written assurance within the number of days specified in the demand, DEMA at its option may terminate this Agreement.

22. **CANCELLATION FOR CONFLICT OF INTEREST** - DEMA may, by written notice to Subrecipient, immediately cancel this Agreement without penalty or further obligation pursuant to ARS 38-511 if any person significantly involved in initiating, negotiating, securing, drafting or creating the Agreement on behalf of the State or its subdivisions (unit of Local Government) is an employee or agent of any other party in any capacity or a consultant to any other party to the Agreement with respect to the subject matter of the Agreement. Such cancellation shall be effective when the parties to the Agreement receive written notice from DEMA, unless the notice specifies a later time. If and only if Subrecipient is an agency of the State or a political subdivision of the State, then this Part 22 shall apply so that either DEMA or Applicant may cancel this Agreement for conflict of interest pursuant to the provisions of this part.

23. **THIRD PARTY ANTITRUST VIOLATIONS** - Subrecipient hereby assigns to the State of Arizona any claim for overcharges resulting from antitrust violations to the extent that such violations concern materials or services supplied by third parties to Subrecipient toward fulfillment of this Agreement.

24. **AVAILABILITY OF FUNDS** - Every payment obligation of DEMA under this Agreement is conditioned upon the availability of funds appropriated or allocated for the payment of such obligations under A.R.S. 35-154. If the funds are not allocated and available for the continuance of this Agreement, DEMA may terminate this Agreement at the end of the period for which funds are available. No liability shall accrue to DEMA in the event this provision is exercised, and DEMA shall not be obligated or liable for any future payments or for any damages as a result of termination under this Part 24, including purchases and/or contracts entered into by Subrecipient in the execution of this Agreement. If and only if

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Applicant is an agency of the State or a political subdivision of the State, then this Part 24 shall apply so that either DEMA or Subrecipient may cancel this Agreement for lack of availability of funds pursuant to the provisions of this part.

25. **FORCE MAJEURE** - If either party hereto is delayed or prevented from the performance of any act required in this Agreement by reason of acts of God, strikes, lockouts, labor disputes, civil disorder, or other causes without fault and beyond the control of the party obligated, performance of such act will be excused for the period of the delay.
26. **PARTIAL INVALIDITY** - Any term or provision of this Agreement that is hereafter declared contrary to any current or future law, order, regulation, or rule, or which is otherwise invalid, shall be deemed stricken from this Agreement without impairing the validity of the remainder of this Agreement.
27. **ARBITRATION** - In the event of any dispute arising under this Agreement, written notice of the dispute must be provided to the other party within thirty (30) calendar days of the events giving the rise to the dispute. Any claim made by or against the State or any of its political subdivisions (including but not limited to DEMA) relating to this Agreement shall be resolved through the administrative claims process. In the event ARS 12-1518 applies, the parties shall proceed with arbitration as provided in that statute. The parties agree that proper venue for any litigation shall be in Maricopa County, Arizona.
28. **GOVERNING LAW AND CONTRACT INTERPRETATION**
- a. This Agreement shall be governed and interpreted in accordance with the laws of the State of Arizona.
 - b. This Agreement is intended by the parties as a final and complete expression of their agreement. No course of prior dealings between the parties and no usage of the trade shall supplement or explain any terms in this document.
 - c. Either party's failure to insist on strict performance of any term or condition of the Agreement shall not be deemed a waiver of that term or condition even if the party accepting or acquiescing in the nonconforming performance knows of the nature of the performance and fails to object.
29. **ENTIRE AGREEMENT** - This Agreement and its Exhibits constitute the entire Agreement between the parties hereto pertaining to the subject matter hereof and may not be changed or added to except by a writing signed by all parties hereto in conformity with Part 19, AMENDMENTS, of this Agreement. All prior and contemporaneous agreements, representations, and understandings of the parties, oral, written, pertaining to the subject matter hereof, are hereby superseded or merged herein.
30. **RESTRICTIONS ON LOBBYING** - Subrecipient shall not use funds made available to it under this Agreement to pay for, influence, or seek to influence any officer or employee of a State or Federal government.
31. **LICENSING** - Subrecipient, unless otherwise exempted by law, shall obtain and maintain all licenses, permits, and authority necessary to perform those acts it is obligated to perform under this Agreement.

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32. **NON-DISCRIMINATION** - Subrecipient shall comply with all State and Federal equal opportunity and non-discrimination requirements and conditions of employment, including the Americans with Disabilities Act (42 USC 12101 *et seq.*), ARS Title 41, Chapter 9, Article 4 (ARS 41-1461 *et seq.*), and Arizona Executive Order 2009-09.
33. **SECTARIAN REQUESTS** - Funds disbursed pursuant to this Agreement may not be expended for any sectarian purpose or activity, including sectarian worship or instruction in violation of the United States or Arizona Constitutions.
34. **ADVERTISING AND PROMOTION OF AGREEMENT** - Subrecipient shall not advertise or publish information for commercial benefit concerning this Agreement without the prior written approval of DEMA.
35. **CLOSED-CAPTIONING OF PUBLIC SERVICE ANNOUNCEMENTS** - Any television public service announcement that is produced or funded in whole or in part by Subrecipient shall include closed captioning of the verbal content of such announcement.
36. **INDEMNIFICATION** - To the extent permitted by law, each party (as indemnitor) agrees to indemnify, defend and hold harmless the other party (as indemnitee) from and against any and all claims, losses, liability, costs, or expenses (including reasonable attorney's fees) (hereinafter collectively referred to as claims) arising out of bodily injury of any person (including death) or property damage, but only to the extent that such claims which result in vicarious/derivative liability to the indemnitee, and are caused by the act, omission, negligence, misconduct, or other fault of the indemnitor, its officers, officials, agents, employees, or volunteers.
37. **TERMINATION** –
- a. All parties reserve the right to terminate the Agreement in whole or in part due to the failure of Subrecipient or DEMA to comply with any term or condition of the Agreement, to acquire and maintain all required insurance policies, bonds, licenses and permits or to make satisfactory progress in performing the Agreement. The party wishing to terminate this Agreement shall provide the other party with a written thirty (30) day advance notice of the termination and the reasons for it.
 - b. If Subrecipient chooses to terminate this Agreement before the grant deliverables have been met, then DEMA reserves the right to collect from Subrecipient all funds distributed by DEMA under this Agreement to Subrecipient.
 - c. DEMA may, upon termination of this Agreement, procure, on terms and in the manner that it deems appropriate, materials or services to replace those under this Agreement. Subrecipient shall be liable to DEMA for any excess costs incurred by DEMA in procuring materials or services in substitution for those due from Subrecipient.
38. **CONTINUATION OF PERFORMANCE THROUGH TERMINATION** - Subrecipient shall continue to perform, in accordance with the requirements of the Agreement, up to the date of termination, as directed in the termination notice.

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39. **COUNTERPARTS** - This Agreement may be executed in any number of counterparts, copies, or duplicate originals. Each such counterpart, copy, or duplicate original shall be deemed an original, and collectively they shall constitute one Agreement.
40. **AUTHORITY TO EXECUTE THIS AGREEMENT** - Each individual executing this Agreement on behalf of Subrecipient represents and warrants that he or she is duly authorized to execute this Agreement.
41. **SPECIAL CONDITIONS** - Subject to 2 CFR 200.315, title to any intangible property (see 2 CFR 200.59) developed, purchased, or otherwise acquired with funds or other resources obtained by Subrecipient in whole or in part under this Agreement vests upon acquisition in the Subrecipient. Subrecipient acknowledges that U.S. Department of Homeland Security - Federal Emergency Management Agency reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use the work for Federal purposes, and to authorize others to do so. Subrecipient hereby further agrees that DEMA shall have a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use the work for its purposes, and to authorize others to do so. Upon acquisition, Subrecipient shall promptly inform DEMA in writing of any rights in any intangible property acquired by Subrecipient under this Agreement.
42. **RECORD RETENTION** - The Subrecipient agrees to comply with the record-keeping requirements and other requirements of A.R.S. 35-214 and 35-215. All records shall be subject to inspection and audit by the State of Arizona at reasonable times.
43. **ADDITIONAL TERMS AND CONDITIONS** - The Subrecipient agrees to comply with the additional Terms and Conditions as described in Exhibit 43 – 2018 Standard Mitigation Grant Program (HMGP) Conditions.
44. **NOTICES** - Any and all notices, requests, demands, or communications by either party to this Agreement, pursuant to or in connection with this Agreement shall be in writing be delivered in person or shall be sent to the respective parties at the following addresses:

Arizona Department of Emergency and Military Affairs
 Division of Emergency Management
 5636 E. McDowell Road
 Phoenix, AZ 85008

Pima County

201 N. Stone Avenue, 3rd Floor, Tucson AZ, 85701

Subrecipient shall address all programmatic questions and reimbursement notices relative to this Agreement to the appropriate DEMA staff contact:

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State Hazard Mitigation Officer

Andrew Traylor

mitigation@azdema.gov

(602) 464-6349

Grant Project Specialist

Sylvia Castillo

mitigation@azdema.gov

(602) 464-6309

IN WITNESS WHEREOF

The parties hereto agree to execute this Agreement.

FOR AND BEHALF OF

Pima County

FOR AND BEHALF OF

Arizona Dept of Emergency & Military Affairs
Division of Emergency Management

Authorized Signature

Name & Title

Date

Date

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EXHIBIT

HAZARD MITIGATION GRANT PROGRAM (HMGP) PROJECT SUBAPPLICATION

DISASTER NUMBER:

HMGP - DR -4524

JURISDICTION NAME:

Pima County

PROJECT TITLE:

2021 RWRD Tres Rios WRF Microgrid
Generator & Solar Power Resiliency Project

PROJECT NUMBER:

12

PROJECT NUMBER IS THE CONTROL NUMBER RECEIVED AT TIME OF INITIAL SUBMITTAL



**Notice of Intent (NOI) approved HMGP-Post Fire Subapplications
are due postmarked/electronically to DEMA-EM by:**

Initial Submission: April 24, 2022

Final Submission: July 17, 2022

HAZARD MITIGATION GRANT PROGRAM (HMGP)

INTRODUCTION

INTRODUCTION

As a result of the declaration of a major federal disaster or aggregate Fire Management Assistance declarations, the State of Arizona is eligible for HMGP funding. The State has established priorities to accept project subapplications from subapplicants statewide, state agencies, tribal governments, local governments, and Private Non-Profits.

Hazard mitigation activities are aimed at reducing or eliminating future damages. Activities include cost effective hazard mitigation projects and hazard mitigation plans approvable by the Federal Emergency Management Agency (FEMA).

PUBLIC ASSISTANCE

HMGP does not fund repairs for damages that result after a disaster. If your project is aimed at repairing a damaged facility resulting from a federally declared disaster, contact the Public Assistance (PA) Program at Duke.Jones@azdema.gov.

TIME EXTENSIONS

Time extensions may be requested, and will be approved or denied on a case-by-case basis. To request additional time to submit a subapplication, send an email to Lucrecia.Vargas@azdema.gov. The subject line must include: "Subapplication Time Extension Request" (include Disaster Number and Project Control Number). The body of the message must include justification and specific details supporting why more time is needed and how much additional time is requested.

QUESTIONS

Submit all HMGP subapplication questions to the following mailbox:
Mitigation@azdema.gov .

HAZARD MITIGATION GRANT PROGRAM REGULATIONS

REGULATIONS

Federal funding is provided under the authority of the [Robert T. Stafford Emergency Assistance and Disaster Relief Act \(Stafford Act\)](#) through FEMA and the Arizona Department of Emergency and Military Affairs, Division of Emergency Management (DEMA-EM). DEMA-EM is responsible for identifying program priorities, reviewing subapplications and forwarding recommendations for funding to FEMA. FEMA has final approval for activity eligibility and funding.

The federal regulations governing HMGP are found in Title 44 of the Code of Federal Regulations (44CFR), Part 201 (Planning) and Part 206 (Projects) and in Title 2 of the Code of Federal Regulations (2CFR), Part 200 (Uniform Administrative Requirements).

The Council on Environmental Quality (CEQ) has developed regulations to implement the National Environmental Policy Act (NEPA). These regulations, as set forth in Title 40, Code of the Federal Regulations (CFR) Parts 1500-1508, require an investigation of the potential environmental impacts of a proposed federal action, and an evaluation of alternatives as part of the environmental assessment process. The FEMA regulations that establish the agency-specific process for implementing NEPA are set forth in 44 CFR Part 10. FEMA will lead the NEPA clearance process.

FEMA GUIDANCE

FEMA requires that all projects adhere to the [Hazard Mitigation Assistance Guidance 2015](#).

HAZARD MITIGATION GRANT PROGRAM ELIGIBILITY CHECKLIST

Before completing the subapplication, review the following HMGP eligibility checklist to ensure project meets the requirements for HMGP funding.

- ☒ **Construction/Ground Breaking:** No construction or ground breaking activities are allowed prior to FEMA approval. HMGP does not fund projects that are in progress or projects that have already been completed.
- ☒ **Scope of Work:** The project scope of work (SOW) must be consistent with the SOW provided in the approved Notice of Intent (NOI).
- ☒ **Benefit Cost Analysis:** FEMA will only consider subapplications that use a FEMA-approved BCA methodology. Documentation to support BCA must be included in subapplication. Projects with a benefit cost ratio (BCR) of less than 1.0 will not be considered. BCA will be verified by FEMA upon subapplication submittal. 5% Initiative Projects do not need a BCA.
- ☒ **Subapplicant Eligibility:** Subapplicant must be an eligible state agency, local government (city, county, special districts), federally recognized tribe or private nonprofit (PNP) organization. PNP is defined as private nonprofit educational, utility, emergency, medical, or custodial care facility, facilities providing essential governmental services to the general public and such facilities on Indian reservations (see 44 CFR Sections 206.221(e) and 206.434(a)(2)).
- ☒ **LHMP/MJHMP:** Subapplicant must have a FEMA approved and adopted Local or Multi Jurisdictional Hazard Mitigation Plan (LHMP or MJHMP) to be eligible for HMGP funding. If a jurisdiction has its own governing body, jurisdiction must be covered under its own plan. LHMP's/MJHMP's expire five years after FEMA approval. Failure to update plan before expiration date may cause project deobligation.
- ☒ **Cost Share:** Per [H.R. 2471, Consolidated Appropriations Act, 2022](#), the local funding match requirement for this specific grant is set at 10% of the total project cost for the subapplicant. HMGP matching funds must be from a non-federal source.
- ☒ **Period of Performance:** Projects must be completed (including close-out) within a 36-month Period of Performance (POP). POP begins at the time of close of the application period.

HAZARD MITIGATION GRANT PROGRAM ELIGIBILITY CHECKLIST (continued)

- ☒ **Complete Subapplication:** Failure to include all required documentation will delay the processing of your subapplication and may result in denial of project. The SOW, cost estimate, cost estimate narrative, work schedule and BCA must accurately mirror each other to be considered for funding. The budget narrative must include a detailed description of every cost estimate line-item, including the methodology used to estimate each cost.
- ☒ **Regulations:** Subapplications that are inconsistent with state and federal HMGP regulations, or do not meet eligibility criteria will not be considered.
- ☒ **Duplication of Programs:** HMGP funding cannot be used as a substitute or replacement to fund activities or programs that are available under other federal authorities, known as Duplication of Programs (DOP).
- ☒ **Time Extensions:** Unless a time extension has been approved before the deadline, subapplications must be electronically submitted by the applicable deadline to be considered for funding.



SUBAPPLICANT MUST BE ABLE TO CHECK EVERY BOX TO QUALIFY FOR HMGP FUNDING.

SUBAPPLICATION FORMAT INSTRUCTIONS

DEMA-EM requires the following format to be used for all HMGP subapplications.

COMPLETE SUBAPPLICATION PACKAGE CONSISTS OF THE FOLLOWING:

- ☒ **One** electronic submission to include functional electronic versions of all documents/attachments.
 - Attachments must be in one of the following formats: Microsoft Word Version 2007 (or newer), Microsoft Excel or Adobe PDF
 - Benefit Cost Analysis (BCA) 6.0 must be included in its Microsoft Excel format (NOT EXPORTED), to include a PDF version of its final BCA Report.
 - All electronic attachments must be clearly titled

ORGANIZATION OF ELECTRONIC FOLDERS (SECTIONS) MUST BE IN THE FOLLOWING FORMAT:

0. Subapplication
1. Scope of Work
2. Designs
3. Studies
4. Maps
5. Photos
6. Schedule (Additional documentation work schedule components, Gantt chart, etc.)
7. Budget (HMGP Cost Estimate Spreadsheet and cost estimate narrative)
8. Match (Local Match Commitment Letter Template)
9. BCA Report (BCA Version 6.0 report and BCA supporting documentation)
10. Maintenance (Project Maintenance Letter Template)
11. Environmental (FEMA's Site Information, Environmental Review and Checklist and all other environmental documentation)
12. Supporting Docs (Any extra supporting documentation)

EMAIL COMPLETED SUBAPPLICATIONS TO:

Mitigation@azdema.gov

PROJECT SUBAPPLICATION FORM

SUBAPPLICANT INFORMATION

1.	SUBAPPLICANT:	Pima County				
NAME OF STATE AGENCY, TRIBAL GOVERNMENT, LOCAL GOVERNMENT, PRIVATE NON-PROFIT OR SPECIAL DISTRICT APPLYING FOR FUNDING						
2.	TYPE:	STATE/LOCAL GOVERNMENT <input checked="" type="checkbox"/>	TRIBAL GOVERNMENT <input type="checkbox"/>	PRIVATE NON-PROFIT <input type="checkbox"/>	SPECIAL DISTRICT <input type="checkbox"/>	
3.	FIPS #:	4019	IF YOU DO NOT KNOW YOUR FEDERAL IDENTIFICATION PROCESSING SYSTEM NUMBER (FIPS #), REQUEST BY EMAILING Mitigation@azdema.gov			
4.	DUNS #:	074477969	IF YOU DO NOT KNOW YOUR DATA UNIVERSAL NUMBERING SYSTEM (DUNS) #, CALL DUN & BRADSTREET (D&B) @ 1-866-705-5711 FOR INFORMATION			
5.	COUNTY:	Pima County			THE NAME OF THE COUNTY WHERE THE PROPOSED PROJECT IS LOCATED	
6.	POLITICAL DISTRICT NUMBERS:	CONGRESSIONAL:	1, 2, 3	PROVIDE ONLY THE NUMBERS OF THE POLITICAL DISTRICTS FOR THE SUBAPPLICANT		
		STATE SENATE:	1, 2, 3			
		STATE HOUSE:	2, 3, 9, 11			
7.	PRIMARY CONTACT:	POINT OF CONTACT FOR YOUR PROJECT. DEMA-EM WILL CONTACT THIS PERSON FOR QUESTIONS AND/OR REQUESTS FOR INFORMATION				
	NAME:	<input type="checkbox"/> Mr. <input checked="" type="checkbox"/> Ms.	FIRST:	Rita	LAST:	Mercer
	TITLE:	Emergency Planning Manager				
	ORGANIZATION:	Pima County Regional Wastewater Reclamation Department (PCRWRD)				
	ADDRESS:	201 N. Stone Avenue, 3 rd Floor				
	CITY:	Tucson	STATE:	AZ	ZIP CODE:	85701
	TELEPHONE:	520-724-6359	FAX:			
	EMAIL:	Rita.Mercer@pima.gov				
8.	ALTERNATIVE CONTACT:	BACK-UP POINT OF CONTACT FOR YOUR PROJECT. DEMA-EM WILL CONTACT THIS PERSON IF PRIMARY CONTACT IS UNAVAILABLE				
	NAME:	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms.	FIRST:	F. Jeff	LAST:	Prevatt
	TITLE:	Deputy Director, Treatment Division				
	ORGANIZATION:	Pima County Regional Wastewater Reclamation Department (PCRWRD)				
	ADDRESS:	7101 N. Casa Grande Highway				
	CITY:	Marana	STATE:	AZ	ZIP CODE:	85743
	TELEPHONE:	520-724-6060	FAX:			
	EMAIL:	Jeff.Prevatt@pima.gov				

LOCAL HAZARD MITIGATION PLAN INFORMATION

9. LOCAL HAZARD MITIGATION PLAN (LHMP) REQUIREMENT:

- i** A FEMA approved and locally adopted LHMP is required to receive federal funding for all project subapplication activities. Subapplicants for HMGP funding must have a FEMA-approved Mitigation Plan in place at the time of sub-award. Subapplication will be reviewed to ensure that the proposed activity is in conformance with subapplicant's plan.

A. NAME/TITLE OF YOUR LHMP: Pima County Multi-Jurisdiction Hazard Mitigation Plan

**B. LOCAL SINGLE JURISDICTIONAL
MULTIHAZARD MITIGATION PLAN:**

DATE SUBMITTED TO DEMA-EM:

DATE APPROVED BY FEMA:

DATE ADOPTED BY LOCAL AGENCY:

OR

**LOCAL MULTI JURISDICTIONAL
MULTIHAZARD MITIGATION PLAN:**

DATE SUBMITTED TO DEMA-EM:

DATE APPROVED BY FEMA:

DATE ADOPTED BY LOCAL
AGENCY:

LEAD AGENCY:

6/19/2017

9/19/2017

9/19/2017

Pima County Office of
Emergency Management

C. IF YOUR PROJECT IS REFERENCED IN YOUR LHMP, INDICATE WHERE THE PROPOSED PROJECT CAN BE FOUND; USE N/A FOR NOT APPLICABLE BOXES:

CHAPTER	PART	SECTION	PAGE
4. Risk Assessment	4.4 Hazard Risk Profiles	4.4.4 Extreme Heat	pp. 68-72
		4.4.7 Severe Wind	pp. 96-99
		4.4.1 Drought	pp. 46-54, 93



DO NOT INCLUDE A COPY OF YOUR PLAN WITH SUBAPPLICATION.

D. PROVIDE A SHORT NARRATIVE DETAILING HOW YOUR PROJECT ALIGNS WITH THE RISK AND HAZARD ASSESSMENTS, STRATEGIES, GOALS AND/OR OBJECTIVES OF YOUR PLAN:

Tres Rios Wastewater Reclamation Facility (TRW) Microgrid Generator and Solar Power Resiliency Project is intended to mitigate the consequences of power loss to the treatment facility caused by climate-driven hazards as identified in the Pima County Multi-Jurisdictional Hazard Mitigation Plan (HMP). In Arizona and other western states, extreme heat, severe wind hazards, and other climate-driven hazards have the potential to severely damage/disable the electric grid at multiple locations, simultaneously. Climate-driven hazards that cause long-term/widespread grid failure, and corresponding power outages to TRW, equate to an immediate inability to treat wastewater, resulting in: subsequent sewage discharge to emergency overflow basins and then to the Santa Cruz River; loss of treatment biology; federal/state permit violations; loss of service; socioeconomic impacts (unemployment and lower land values, etc.); as well as and public health/environmental impacts. [See, [9D. 2017 PCMJHMP Excerpts – Severe Wind Extreme Heat Drought](#)]

The HMP references the following underlying hazards related to widespread grid power outages:

EXCERPT 1 - HAZARD MITIGATION PLAN - EXTREME HEAT: § 4.4.4, pp.68-72, ([E]xtreme heat can affect infrastructure. Power lines are de-rated based on the ambient air temperature, which provides cooling. High temperatures and calm conditions can lead

to overheating of power lines as well as power transformers, resulting in widespread power outages...).

EXCERPT 2 - HAZARD MITIGATION PLAN - SEVERE WIND: § 4.4.7 pp. 96-99, (The hazard of severe wind encompasses all climatic events that produce damaging winds.... A thunderstorm microburst wind may knock down miles of power poles and lines and cause economic losses due to the power outages...).

EXCERPT 3 – HAZARD MITIGATION PLAN – DROUGHT (fire/flood): § 4.4.1 pp. 46-54, 93 (During periods of severe drought, lower moisture in plant and forest fuels create an increased potential for devastating wildfires. In addition, lakes, reservoirs, and rivers can be subject to water shortages that affect the availability of water supplies for activities such as fire suppression ... The socioeconomic effects of drought include higher unemployment and lower land values. Arizona has been in a state of long-term drought for approximately 21 years.... Post-wildfire debris flows are also common in Arizona and Pima County.).

COMMUNITY INFORMATION

10. COMMUNITY PARTICIPATION:

A. CHECK BOX(ES) IF YOUR COMMUNITY PARTICIPATES IN ANY OF THE FACTORS BELOW:

Select a column appropriate to your type of project. Acronyms include: Community Wildfire Protection Plan (CWPP), Community Rating System (CRS) Plan and Unreinforced Masonry (URM) Participation.

FIRE
<input checked="" type="checkbox"/> CWPP, FIRE WIRE, FIRE SAFE
<input type="checkbox"/> CURRENT CEQA ACTIVITY
<input checked="" type="checkbox"/> DEFENSIBLE SPACE

FLOOD
<input checked="" type="checkbox"/> CRS PLAN
<input type="checkbox"/> CURRENT CEQA ACTIVITY
<input checked="" type="checkbox"/> HYDROLOGY STUDY

EARTHQUAKE
<input checked="" type="checkbox"/> SHAKEOUT DRILL PARTICIPATION
<input checked="" type="checkbox"/> URM PARTICIPATION
<input type="checkbox"/>

B. PROVIDE A NARRATIVE DESCRIPTION OF ALL OF FACTORS SELECTED FROM LIST ABOVE:

PCRWRD's proposed TRW Generator Project reflects a nexus to the fire, flood, and earthquake community planning factors via an **all-hazards** approach to emergency preparedness. Whether a main grid outage is due to fire, flood, earthquake, severe wind, extreme heat, cyber-security, vandalism or other reasons, the TRW Generator Project will protect public health and the environment in the Tres Rios and Agua Nueva Wastewater Reclamation Facilities (TRW/ANW) service area community from these all-hazard reasons for a main grid power outage.

- Flood.** The Pima County Multi-Jurisdiction Hazard Mitigation Plan (HMP) is currently credited as the Pima County Floodplain Management Plan (FMP) under the Community Rating System (CRS). A standalone FMP was approved by the Board of Supervisors in April, 2020 and it has been submitted to the Insurance Services Organization (ISO) as part of a rating modification request submitted December 10, 2020. Pima County has an existing CRS rating of Class 5. References in the HMP to potential flood related power outages impacting the Town of Marana, where TRW is located, include systems of the Canada del Oro Wash and the Rillito River. The most hazardous aspect of these systems is where they come together at the Santa Cruz River just west of Interstate 10. No part of this confluence is bank protected. If the berm protecting the sand and gravel pit within the confluence were to fail, the resulting pit capture could cause a head cut eastwards and erode away the adjacent portion of Interstate 10, the Union Pacific

Railroad, a major Tucson Electric Power transmission line, transcontinental high-pressure gas pipeline, and a transcontinental fiber optic line. [See, [10B-1. 2017 PCMJHMP Excerpts - Flooding](#), p.83]

- Fire. The Mt. Lemmon Wastewater Reclamation Facility (ML-WRF) is a critical infrastructure wastewater treatment plant impacted by the 2020 BIGHORN FIRE (FMAG declaration) and previously, the BURRO FIRE. Survivable/defensible space was a key component of the Mt. Lemmon Community's resiliency to protect assets at risk, such as the ML-WRF, during the Bighorn Fire. Pima County and participating jurisdictions and organizations developed the Pima County Community Wildfire Protection Plan (PCCWPP) to help local governments and communities, fire departments and districts, and county residents identify at-risk public and private lands to protect those lands from a severe wildfire threat. [See, [10B-2. 2017 PCMJHMP Excerpts – Wildfire](#), p. 101] The PCCWPP Community Mitigation Plan prioritizes fuel reduction around areas of greatest risk and identifies proposed actions for effective protection from wildfires. [See, [10B-3. PCCWPP Final Sept 2013 Excerpt - Sensitive Spaces](#), p.93] In certain areas of Pima County, the local fire district may require the creation of defensible space around at-risk structures. [See, [10B-4. PCRFGD Guidelines for the Maint of Riparian Habitat](#)] Fire Wise is an Arizona community program that includes survivable/defensible spaces. [See, [10B-5. Homeowners Firewise Guide For Arizona - June 2016](#)]
- Earthquake. The Arizona Geological Society is both a key organizer of *The Great Arizona Shake Out* as well as a HMP subject matter expert key contributor of information on earthquakes and related landslides. According to the Arizona Geological Society, in Pima County, small earthquakes are of low seismic risk to buildings, however repeated shaking could eventually cause structural damage. In unstable areas, small earthquakes may also trigger landslides and boulders rolling off mountain slopes. [See generally, [10B-6. 2017 PCMJHMP Excerpt – Earthquake](#), p.61; Geological Evolution in Arizona No. 17. Arizona Geological Society. 1989] Although the HMP does not directly address local participation in Unreinforced Masonry (URM) and *Shakeout* programs in assessing the County's earthquake probability magnitude and seismic risk, the HMP does share the programs' identified risks, and notes that for denser populations in Pima County the existence of high rise buildings, existence of unreinforced masonry buildings, and the lack of earthquake awareness among its population elevate the risks associated with seismic activity. [See, [10B-6. 2017 PCMJHMP Excerpt – Earthquake](#), p. 61]

C. IS YOUR JURISDICTION REQUIRED TO PROVIDE PUBLIC NOTICE OF THIS PROJECT?

☐ Yes ☒ No

If yes, provide details:

PROJECT INFORMATION

11. PROJECT TITLE: 2021 RWRD Tres Rios WRF Microgrid Generator & Solar Power Resiliency Project

MUST USE THE SAME PROJECT TITLE ORIGINALLY USED IN YOUR NOTICE OF INTENT (NOI). IF YOU NEED TO CHANGE YOUR PROJECT TITLE, CONTACT DEMA-EM AT Mitigation@azdema.gov.

12. PROJECT LOCATION:

A. IDENTIFY THE COUNTY/COUNTIES WHERE THE ACTIVITY WILL OCCUR:

Pima County

B. LATITUDE/LONGITUDE COORDINATES:

FEMA requires that all projects be geo-coded using latitude and longitude (lat/long) using NAD-83 or WGS-84 datum. The lat/long coordinates must be expressed in degrees including five or more decimal places (e.g., latitude 36.999221, longitude -109.044883).

LATITUDE	LONGITUDE
32.333120	-111.068790



IF THERE ARE MORE THAN ONE SET OF LAT/LONG COORDINATES, PROVIDE ON SEPARATE DOCUMENT AND SUBMIT ELECTRONICALLY. FILE TITLE MUST BEGIN WITH "12B-".

C. STRUCTURE COORDINATES:

- For projects that protect buildings or other facilities, provide coordinates for each structure at either the front door of the structure or the intersection of the public road and driveway that is used to access the property.
- For large activity areas, such as detention basins or vegetation management projects, the location must be described by three or more coordinates that identify the boundaries of the project.
- The polygon created by connecting the coordinates must encompass the entire project area.

N/A

D. STAGING AREA:

Describe the project staging area. This is the area where the project equipment, materials and/or debris will be staged. Include a vicinity map with the proposed staging area(s) in the map section of the submission.

The TRW Campus is located at 7101 N. Casa Grande Highway, in northwest Pima County, in Marana, AZ 85743. The TRW Generator Project generator site pad and construction staging area are adjacent to one another, and both are centrally located within the TRW microgrid footprint and near the project Switchgear - Building 84. [See, [12D_13E-5_19A-10. TRW Site Aerial Photos](#)] The existing TRW project Solar Fields are located southeast of the TRW campus near the PCRWRD Sub-Regional Administration building.



AERIAL MAP(S) OF STAGING AREA(S) MUST HAVE FILE TITLE(S) BEGINNING WITH "12D-".

E. SITE PHOTOS:



A minimum of three ground photos per project site are required. The file title must begin with "12E-1", "12E-2", "12E-3", etc.

Subapplicant Note

Attached supporting documents:

1. [12D_13E-5_19A-10. TRW Site Aerial Photos](#)
2. [12E-1. PC TRW Project Site Ground Photos](#)
3. [19A-12. TRW Site Photos - Gen Project Site and Bldg 84](#)

The attachment [12E-1. PC TRW Project Site Ground Photos](#) contains photos of the project staging area, project area (concrete pad), and existing electrical vault.

F. MAPPING REQUIREMENTS:

Provide the following mapping elements:

- ☐ If project area has been mapped using GIS software, include the completed Shapefiles electronically.
- ☒ Include a vicinity map of the general area showing major roads. Aerial photographs may be used as vicinity maps.
- ☒ Prominently mark the project location on the vicinity map.
- ☒ Provide a detailed project map that clearly identifies the project boundaries.
- ☒ Project map must show all lat/long coordinates provided in the project description.
- ☒ Vicinity map and the project map must both have a north arrow and scale.



DO NOT SEND ROLLED MAPS.

Subapplicant Note

Attached supporting documents:

1. [12D_13E-5_19A-10. TRW Site Aerial Photos](#)
2. [12E-1. PC TRW Project Site Ground Photos](#)
3. [12F_13E-7_13J. TRW Generator Project - Vicinity-Project-Design Map](#)
4. [19A-12. TRW Site Photos - Gen Project Site and Bldg 84](#)

The attachment [12F_13E-7_13J. TRW Generator Project - Vicinity-Project-Design Map](#) contain all elements requested for the site vicinity, project and design maps.

G. PUBLIC ASSISTANCE (PA) PROGRAM FUNDING:

List any Public Assistance Project Worksheets (PWs) that were completed at the project location from previous disasters. List all current engagement with PA for this current disaster and include date(s) if known:

N/A

H. DEED RESTRICTIONS THAT LIMIT FEDERAL FUNDING:

Is there a deed restriction or permanent conservation easement on the property at the project site that would prohibit federal disaster funding (e.g., a previously FEMA funded acquisition of a structure on this property)? If yes, describe in detail.

No.

13. PROJECT DESCRIPTION:

A. APPLICATION TYPE:

☒ Project ☐ 5% Activity

5% activities are defined as mitigation actions that are consistent with your local hazard mitigation plan and meet all HMGP requirements, but may be difficult to conduct a standard BCA to prove cost-effectiveness. Examples: early earthquake warning system, back-up generators for critical facilities, public awareness campaign, mitigation specific community outreach activities.

B. PROJECT TYPE:

Select at least one project type; select as many as needed to accurately describe project.

<input type="checkbox"/> EARTHQUAKE	<input type="checkbox"/> FIRE	<input type="checkbox"/> FLOOD	<input checked="" type="checkbox"/> OTHER
-------------------------------------	-------------------------------	--------------------------------	---

<input type="checkbox"/> CODE ENFORCEMENT	<input type="checkbox"/> DEFENSIBLE SPACE	<input type="checkbox"/> ACQUISITION	<input checked="" type="checkbox"/> CRITICAL FACILITY GENERATOR(S)
<input type="checkbox"/> NON-STRUCTURAL	<input type="checkbox"/> FIRE RESISTANT BUILDING MATERIALS	<input type="checkbox"/> DRY FLOOD PROOFING	<input type="checkbox"/> DROUGHT <input type="checkbox"/> TSUNAMI
<input type="checkbox"/> STRUCTURAL	<input type="checkbox"/> FIRE VEGETATION MANAGEMENT	<input type="checkbox"/> FLOOD CONTROL	<input type="checkbox"/> WIND
<input type="checkbox"/> NON-STRUCTURAL & STRUCTURAL	<input type="checkbox"/> SOIL STABILIZATION	<input type="checkbox"/> ELEVATION	<input checked="" type="checkbox"/> OTHER: <input type="text" value="Microgrid"/>
<input type="checkbox"/> CLIMATE RESILIENCY MITIGATION ACTION (CRMA): Projects that mitigate risk through restoration of the natural environment			

C. DESCRIBE PROBLEM/HAZARDS/RISKS:

Describe the problem this project is attempting to solve and the expected outcome. Describe the hazards and risks to life, safety and any improvements to property in the project area for at least the last 25 years. Describe in detail how the project reduces hazard effects and risks.

The Critical Infrastructure Asset-At-Risk is the Tres Rios Wastewater Reclamation Facility's ability to maintain treatment operations for the protection of public health and environment in a wastewater service area that supports a population of nearly 800,000 inhabitants. The Tres Rios Wastewater Reclamation Facility (TRW) is the largest treatment facility in Pima County, with a 50 MGD capacity. TRW serves as a backup plant to the 32 millions of gallons per day (MGD) Agua Nueva Wastewater Reclamation Facility (ANW) and also receives daily side-stream flows from ANW, as well as all sewage sludge. The jurisdictions supported by the combined TRW service areas include Oro Valley, Marana, Vail, Tucson and South Tucson. The service areas support multiple cross-sector critical infrastructure partners, including 8 community-wide water/wastewater system sector partners.

The TRW Generator Project Problem - TRW is vulnerable to the loss of power due to natural disasters such as extreme heat or severe wind damage to the external power grid or internal substation incapacitation. If power to TRW is lost, two critical issues will occur:

- The Headworks process will be unable to receive TRW/ANW influent and untreated sewage/sludge flow will divert to the Emergency Overflow Basins with limited storage capacity of 12 to 24 hours.
- TRW will be unable to operate process equipment necessary to treat wastewater and sustain critical treatment biology.

Risk Consequences: Loss of Service; Discharge of Untreated Sewage to the Santa Cruz River; Federal/State Permit Violations; Risk to Public Health and the Environment. The TRW Generator Project solution to a main grid power outage is the purchase and installation of two (2) All-Weather standby generator skids (3-4MW each) with a minimum of 24-hour fuel storage capacity. The generators will ensure TRW power resiliency to mitigate future damages from "all-hazard" incidents, whether natural or human-caused, that result in a main grid outage.

Post-Installation, the TRW generators will provide the following Hazard/Risk Reduction Protections:

1. MAINTAIN TRW POWER CAPABILITY. The TRW Generator Project will provide the continuity of operations power needed in a long-term/widespread power outage to support current and future population based on TRW treatment capacity. [See, [13C. PCRWRD Facility Plan 2016 Excerpt - Capacity Needs](#)]
2. MAINTAIN SOLAR POWER CLEAN ENERGY. Solar power generates clean and sustainable electricity without toxic pollution or emissions. The project generators

provide a route for the flow of electricity from the solar fields to the TRW micro-grid when the main grid is down. The generators energize a path to enable the solar fields to sync and auto-start as if connected to the utility power grid. Without the generators, the solar energy supply will be unavailable to provide power to the micro-grid.

3. **MAINTAIN ENVIRONMENTAL & SUSTAINABILITY BENEFITS.** TRW project generators will ensure that treatment processes remain unimpeded by power outages, maintaining the cycle of groundwater recharge and endangered species habitat support from TRW's treated, clean water discharge to the Santa Cruz River. In addition, the project generators enable TRW to continue clean energy production of sustainable biogas, and the beneficial reuse of treatment byproducts. Without the project generators, instead of a Class A+ treated effluent discharge to the River, raw sewage will be discharged and all other environmental benefits come to a halt.
4. **DUEL GENERATOR PROTECTION.** The project generators will allow for maintenance and repairs of a single generator as needed during a long-term power outage (≥ 24 hours). Two separate generators provide management with the flexibility to divert internal micro-grid power to one of two plant treatment process lines when necessary.
5. **MAINTAIN CRITICAL INFRASTRUCTURE PROTECTION.** The Water/Wastewater System Sector is one of 16 critical infrastructures identified by the Department of Homeland Security as vital to U.S. security, economic security, public health and safety. The project generators ensure the continuous reliable wastewater service to support communitywide resiliency.
6. **MAINTAIN FEMA COMMUNITY LIFELINES SUPPORT.** Wastewater provides key FEMA Community Lifelines support to alleviate immediate threats to life and property in an incident. Key wastewater supported lifelines include the Food, Water & Shelter Lifeline; Safety & Security Lifeline; and the Health & Medical Lifeline. The project generators help ensure reliable wastewater services are readily available in a long-term power outage so that these FEMA Lifelines are better prepared for incident response and recovery.
7. **EQUITABLY MAINTAIN WASTEWATER SERVICE AREA.** For the combined TRW/ANW service area population of nearly 800,000, the FEMA total value for the loss of wastewater services is over \$44 Million per day (\$58 per person, per day). The TRW Generator Project is intended to equitably maintain wastewater services to all inhabitants, including underserved and economically disadvantaged communities, by maintaining TRW mission critical functions during an all-hazards main utility grid power outage.

D. DESCRIBE RECENT EVENTS THAT INFLUENCED THE SELECTION OF THIS PROJECT:

Describe recent events (e.g. changes in the watershed, discovery of a new hazard, zoning requirements, inter-agency agreements, etc.) that influenced the selection of this project.

PCRWRD's selection of the TRW Generator Project was directly influenced by Critical Infrastructure (CI) cross-sector partner outreach and a mutual understanding of our interdependencies and cascading impacts in a long-term/widespread power outage. As CI in the Water/Wastewater System Sector (Water Sector), PCRWRD has successfully pursued outreach activities with other government and non-government CI partners in working toward a shared understanding of our interdependencies and the community-wide, cascading impacts of a long-term grid power

outage. Our outreach included our City of Tucson Water Sector partner and emergency operations, fire, electric utilities, natural gas, data/communications providers, Information Technology Department (ITD), integrated communications network and flood control. These leveraged outreach activities included several years of meetings, EarthEX preparedness exercises, emergency planning, problem solving and improvement plans. [See, [13D-1. Pipeline October 2019 - EARTHEX 2019 Article](#)] The cross-sector engagements and exercise improvement plans highlighted TRW's emergency backup power needs to mitigate the consequences of a long-term and widespread power outage. Planning together makes all of us more resilient in our incident response.

Two recent examples of grid power outages with the potential for critical power loss impacts to TRW operations occurred in August 2020 and amplified the need for on-site TRW emergency power.

1. On August 16, 2020, ten power poles were downed south of Silverbell Road and Ina Road in Marana, AZ due to severe winds. The damage to the grid resulted in a power outage at TRW and untreated sewage was diverted, quickly filling an on-site emergency overflow basin. Restoration of the south power grid took three days. If similar severe wind damage had also impacted the north Silverbell/Ina grid, it would have triggered a long-term/widespread power outage, instantly impeding TRW's ability to process sewage and fulfill its mandate to protect public health and environment. [See, [13D-2. Incident Summary - Severe Wind Power Outage - August 16 2020](#)]
2. On August 18, 2020, TEP issued the following press release: "To limit the strain on the regional grid, Tucson Electric Power (TEP) joined other Arizona utilities (APS, UniSource Energy, TRICO) in calling for a voluntary energy conservation from 3-8 pm to ease a regional energy shortage amid extremely high temperatures in the southwestern United States." TEP noted they are prepared to meet customer energy needs but the California situation increased the risk to outages of one or more generating units, a key transmission line or other contingencies. [See, [13D-3. TEP Asks for Voluntary Energy Conservation - August 18 2020](#)]

E. SCOPE OF WORK (SOW):

STATE EXACT SOW DOCUMENT TITLE:

2021 RWRD Tres Rios WRF Microgrid Generator & Solar Power Resiliency Project

1. Describe the entire SOW of the project in clear, concise, ample detail.
2. Must provide a thorough description of **all tasks and activities** to be undertaken.
3. Must be written in sequential order from start to finish of the project.
4. Describe any land acquisition activities, and/or right-of-way or access easements that need to be obtained.
5. If structural, discuss how the structure/building/facility will be constructed or retrofitted.
6. Include building or structure dimensions, material types, depth and width of excavations, volume of materials excavated, type of equipment to be used, staging and parking areas, and any phasing of the project.
7. If any tunneling is proposed, describe the method and any temporary trenches or pits.
8. Describe any demolition activities that need to occur prior to construction or retrofitting.



SOW MUST BE SUBMITTED ELECTRONICALLY. FILE TITLE MUST BEGIN WITH "13D-".

Subapplicant Note

Attached supporting documents: Section 13D references project influence. SOW documents are titled with 13E:

1. [13E. TRW Generator Project - Scope of Work](#)
2. [14. TRW Generator Project - Schedule Worksheet](#)
3. [13E-6. Pima County Procurement Process Summary 2017](#)
4. [12F_13E-7_13J. TRW Generator Project - Vicinity-Project-Design Map](#)
5. [19A-12. TRW Site Photos - Gen Project Site and Bldg 84](#)
6. [13E-2. Technical Engineering General Logic Sequence](#)
7. [13E-3_19A-8. One-Line-Diagram of the TRW Microgrid graphic](#)
8. [13E-4. TRW Microgrid Electric Load Graphic - TRW Bldg 84 to Gen](#)

F. HAS YOUR JURISDICTION PREVIOUSLY RECEIVED HMGP FUNDING?

☐ Yes ☐ No ☒ Unknown | If yes, provide disaster number(s):

G. HAS YOUR JURISDICTION RECEIVED ANY OTHER FUNDING?

Describe all other funding received for this project and all other recent projects. Identify the funding source (i.e., Federal, State, Private, etc.).

There are no other sources of funding for this project.

H. RELATED PROJECTS:

Describe any other projects or project components (whether or not funded by FEMA), which may be related to the proposed project, or are in (or near) the proposed project area. FEMA must look at all projects to determine a cumulative effect. FEMA reviews all interrelated projects under NEPA regulations.

None.

I. HAZARD ANALYSIS TYPE:

Select the hazard(s) below that this project will protect against. Select as many as needed.

- | | | | |
|--|---|---|---|
| <input type="checkbox"/> BIOLOGICAL | <input type="checkbox"/> EARTHQUAKE | <input type="checkbox"/> LAND SUBSISTENCE | <input type="checkbox"/> TERRORIST |
| <input type="checkbox"/> CHEMICAL | <input type="checkbox"/> FIRE | <input type="checkbox"/> MUD/LANDSLIDE | <input type="checkbox"/> TORNADO |
| <input type="checkbox"/> CIVIL UNREST | <input type="checkbox"/> FISHING LOSSES | <input type="checkbox"/> NUCLEAR | <input type="checkbox"/> TOXIC SUBSTANCES |
| <input type="checkbox"/> COASTAL STORM | <input type="checkbox"/> FLOOD | <input type="checkbox"/> SEVERE ICE STORM | <input type="checkbox"/> TSUNAMI |
| <input type="checkbox"/> CROP LOSSES | <input type="checkbox"/> FREEZING | <input type="checkbox"/> SEVERE STORM(S) | <input type="checkbox"/> WINDSTORM |
| <input type="checkbox"/> DAM/LEEVE BREAK | <input type="checkbox"/> HUMAN CAUSE | <input type="checkbox"/> SNOW | <input checked="" type="checkbox"/> OTHER (describe below): |

- | | | |
|----------------------------------|------------------------------------|---|
| <input type="checkbox"/> DROUGHT | <input type="checkbox"/> HURRICANE | <input type="checkbox"/> SPECIAL EVENTS |
|----------------------------------|------------------------------------|---|

TRW loss of power due to all-hazards caused Utility Grid power failure.

J. DESIGN PLANS:

☒ If your project requires design plans, plans should be prepared to supplement the SOW, include them. If the project involves ground disturbance, (e.g. enlarging ditches or culverts, diversion ditches, detention basins, storm water improvements, etc.) include the following:

1. **Scale:** Plans should be drawn to scale (e.g. 1" to 100' or 1" to 200') depicting the entire land parcel, showing buildings, improvements, underground utilities, other physical features, dimensions and cross sections.
2. **Identification:** Indicate agency name, land owner, civil engineer, soil engineer, geologist, map preparer, and date of map preparation. Also, indicate the name of the project.
3. **Legend/Orientation:** Include a legend explaining all lines and symbols. Identify property acreage and indicate direction with a north arrow (pointing to top or right hand side of the plan).
4. **Dimensions:** Show property lines and dimensions. Also, show boundary lines of project and their

dimensions if only a portion of the property is being utilized for the project.

5. **Structures:** Identify all existing and proposed buildings and structures including storm drains, driveways, sidewalks and paved areas.
6. **Utilities:** Indicate names and location of utilities on property (water, sewage, gas, electric, telephone, cable).
7. **Roads/Easements:** Indicate location, names, and centerline of streets and recorded roads. Identify any utility, drainage or right-of-way easements on the property.
8. **Drainage:** Show the location, width and direction of flow of all drainage courses on site.
9. **Grading/Topographic Information:** Show existing surface contours on-site and bordering the property
10. **Parking:** Show all construction parking and staging areas and provide dimensions.
11. **Cross Sections:** Provide cross sections of proposed buildings, structures or other improvements, and any trenches, temporary pits or catchment basins.

- ☐ If applicable, provide studies and engineering documentation, including any Hydrology and Hydraulics (H&H) data.
- ☐ If applicable, provide drawings or blueprints that show the footprint and elevations.



DO NOT SEND PRINTED COPIES OF DESIGN PLANS, DRAWINGS OR BLUE PRINTS. SUBMIT DESIGNS ELECTRONICALLY. FILE TITLE MUST BEGIN WITH "13J-".

Subapplicant Note

The attachment *12F_13E-7_13J. TRW Generator Project - Vicinity-Project-Design Map* contain all elements requested for the site vicinity, project and design maps.

K. PROJECT ALTERNATIVES:

Identify three project alternatives:

1. ALTERNATIVE #1 – NO ACTION:

Describe the No Action alternative below. The No Action alternative evaluates the consequences of taking no action and leaving conditions as they currently exist.

NO ACTION. Discharge of untreated wastewater to Santa Cruz River, loss of biology, permit violations, Public Health, Safety and Environment at risk.

2. ALTERNATIVE #2 – PROPOSED ACTION:

Describe the Proposed Action alternative below. The Proposed Action alternative is the proposed project to solve the problem. Explain why the proposed action is the preferred alternative. Identify how the preferred alternative will solve the problem, why the preferred alternative is the best solution for the community, why and how the alternative is environmentally preferred and why the project is the economically preferred alternative.

PROPOSED ACTION. The proposed project generators are the preferred option as they offer the immediate availability of a generator and solar power to TRW in a long-term/widespread power outage, which provides the level of protection necessary to prevent discharge of untreated wastewater to the Santa Cruz River.

3. ALTERNATIVE #3 – SECOND ACTION ALTERNATIVE:

Describe the Second Action alternative below. The Second Action alternative described must also solve the described problem. State why this alternative wasn't chosen. It must be a viable project that could be substituted in the event the proposed action is not chosen.

RENTAL GENERATOR. The TRW Emergency Overflow Basins have a 12-24 hour capacity depending on influent flows. If timely available, rental generators of sufficient capacity will provide a short-term solution to the power loss problem. Rental generators were not selected as a solution however, because during an extended/widespread main grid power outage, rental generators are likely unavailable due to: (1) insufficient capacity of rental units to support treatment process, (2) competitive demand for a limited number of units nationwide, (3) lack of

timely availability (out-of-area/state), and (4) lack of adaptability of rental units to our electrical distribution centers in a timely manner.

WORK SCHEDULE INFORMATION

14. PROJECT WORK SCHEDULE:

The intent of the work schedule is to provide a realistic appraisal of the time and components required to complete the project.

- Describe each of the major work elements and milestones in the description section below.
- Project subapplication examples are: construction, architectural, design, engineering, inspection, testing, permits, project management, mobilization and de-mobilization.
- State the total timeframe anticipated for each of the work elements.
- State the total timeframe anticipated to complete the project.
- Work schedule must mirror SOW, budget and BCA.

OPTIONAL: Provide the work schedule in GANTT chart form as supplemental documentation in the work schedule section of the binder Include this information as an example.

WORK SCHEDULE EXAMPLE		
#	DESCRIPTION	TIMEFRAME
1.	Kick-off, 90% design meetings	3 months
2.	Final contract drawing development	5 months
3.	Open bids and award contract	4 months
4.	Construction – Mobilization	5 months
5.	Construction – Demolition	4 months
6.	Construction – Concrete and conduit work	2 months
7.	Construction – Trenching	2 weeks
8.	Construction – Utility relocation	4 months
9.	Construction – Electrical Installation	1 month
10.	Construction – Site Restoration	1 week
11.	Construction – Complete punch list	2 months
12.	Construction – Demobilization	1 week
13.	Project Close-out and record drawings	2 months
14.	Grant Close out	3 months
TOTAL MONTHS:		36 months



TOTAL PROJECT DURATION (INCLUDING CLOSE-OUT) MUST NOT EXCEED A 36- MONTH PERIOD OF PERFORMANCE (POP).

#	DESCRIPTION	TIMEFRAME
1.	See attachment 14. TRW Generator Project - Schedule Worksheet and Narrative , which contains the task items, timeframe for each task, and the requested descriptive narrative.	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		

18.	Project Close-out	
19.	STANDARD VALUE (DO NOT CHANGE) Grant Close-out	3 months
TOTAL MONTHS:		

If more lines are needed than provided, indicate the file title of document, beginning with "14-", in box 1 and attach a separate work schedule.

COST ESTIMATE INFORMATION

15. HMGP COST ESTIMATE SPREADSHEET:

A. COST ESTIMATE INSTRUCTIONS:

☒ Using the HMGP Cost Estimate Spreadsheet, provide a detailed cost estimate breakdown.

- Cost estimate describes the anticipated costs associated with the SOW for the proposed mitigation activity. Cost estimates must include detailed estimates of cost item categories.
- Only include costs that are directly related to performing the mitigation activity. If additional work, such as remodeling, additions, or improvements are being done concurrently with the mitigation work, do not include these costs in the submitted budget.
- Documentation that supports the budget must be attached with the sub-application. The file title must begin with "15A-".
- Total costs must be consistent with the requested federal share plus the matching funds and must be consistent with the project cost in the Benefit Cost Analysis (BCA), SOW and work schedule.

HMGP COST ESTIMATE SPREADSHEET EXAMPLE					
#	ITEM NAME	Unit Qty	UNIT	UNIT COST	COST EST TOTAL
1.	Pre-Award Costs: Develop BCA	4	HR	\$150	\$600
2.	Temp. Inlet Filter Rolls	4	EA	\$250	\$1000
3.	Temp. Fiber Roll	1850	LF	\$3	\$5550
4.	Hydraulic Mulch	1000	SQYD	\$2	\$2000
5.	Plane Asphalt Concrete Pavement	650	SQYD	\$22	\$14300
6.	Street Sweeping for 30 days	30	EA	\$350	\$10500
7.	Roadway Excavation	70	CY	\$40	\$2800
8.	Aggregate Base, Class 2	210	CY	\$75	\$15750
9.	Remove Concrete Pavement	650	SQYD	\$340	\$10540
10.	Asphalt Concrete, Type B	180	TON	\$150	\$27000
11.	Asphalt Concrete, Leveling	10	TON	\$300	\$3000
12.	Asphalt Concrete Dike, Type A	235	LF	\$15	\$3525
13.	Asphalt Concrete Dike, Type F	125	LF	\$8	\$120
14.	Place Asphalt Concrete	15	SQFT	\$8	\$120
15.	18" Corrugated Steel Pipe Riser	5	LF	\$125	\$625
16.	24" Reinforced Concrete Pipe	275	LF	\$170	\$46750
17.	84" Reinforced Concrete Pipe Install	572	LF	\$400	\$228800
18.	Precast Triple Concrete Box Culvert	44	LF	\$1500	\$66000
19.	Curb Inlet - Type B-1 (L=9')	1	EA	\$6000	\$6000
20.	Curb Inlet - Type B-1 (L=13')	1	EA	\$6300	\$6300
21.	Curb Inlet - Type B-1 (L=15')	1	EA	\$6800	\$6800
22.	Storm Drain Cleanout - Type A-8	3	EA	\$7500	\$22500
23.	8" PVC Sewer	89	LF	\$100	\$8900
24.	Cellular Block (Precast)	4100	SQFT	\$200	\$82000
25.	Project Identification Sign	2	EA	\$1000	\$2000
Total Project Cost Estimate:					\$573480

B. PRE-AWARD COSTS:

Eligible pre-award costs are costs incurred after the disaster date of declaration, but prior to grant award. Pre-award costs directly related to developing the application may be funded.

- Developing a BCA
- Preparing design specifications
- Submission of subapplication
- Gathering environmental and historic data
- Workshops or meetings related to development



Subapplicants who are not awarded funds will not receive reimbursement for pre-award costs.

Subapplicant Note

Attached supporting documents:

- 15A_15B_15C. HMGP Project Cost Estimate Spreadsheet and Narrative
- 15D. HMGP Management Cost Estimate Spreadsheet and Narrative

** The attachment 15A_15B_15C. HMGP Project Cost Estimate Spreadsheet and Narrative contains **pre-award cost** (line item #6).

C. COST ESTIMATE NARRATIVE:

FEMA requires a cost estimate narrative that explains all projected expenditures in detail. The cost estimate narrative is intended to mirror the cost estimate spreadsheet and should include a full detailed narrative to support the cost estimates listed in the HMGP Project Cost Estimate Spreadsheet. If your cost estimate includes City, County, or State employees' time (your agency), include personnel titles and salary/hourly wages plus benefits for a total hourly cost. Detailed timesheets must be retained.

☒ File title must be "15C- Cost Estimate Narrative".

Subapplicant Note

Attached supporting documents:

1. [15A_15B_15C. HMGP Project Cost Estimate Spreadsheet and Narrative](#)
2. [15D. HMGP Management Cost Estimate Spreadsheet and Narrative](#)

16. FEDERAL/NON-FEDERAL SHARE INFORMATION:

A. FUNDING RESTRICTIONS:

FEMA will contribute up to 75 percent of the total project cost. A minimum of 25 percent of the total eligible costs must be provided from a non-federal source.

For example: for a \$6,250,000 total project cost, the federal requested share (75 percent) would be \$5,000,000. The non-federal match share (25 percent) provided would be \$1,250,000.

A jurisdiction may contribute an amount greater than the 25 percent non-federal share.

For example: for a \$10,000,000 total project cost, the federal requested share cannot exceed \$5,000,000. Therefore, the non-federal match provided must be \$5,000,000, which exceeds 25 percent of the total cost share. The sum of the non-federal and federal shares must equal the total project cost.

B. TOTAL PROJECT COST ESTIMATE:

\$ 5,221,883.38

Enter total cost formulated on HMGP
Cost Estimate Spreadsheet

ENTER \$ IN BOX ABOVE

FEDERAL SHARE (90% MAXIMUM)	REQUESTED AMOUNT:	\$ 4,699,695.04
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	90%
		ENTER % IN BOX ABOVE
NON-FEDERAL SHARE (10% MAXIMUM)	REQUESTED AMOUNT:	\$ 522,188.34
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	10%
		ENTER % IN BOX ABOVE



VERIFY ALL
AMOUNTS
ENTERED ARE
ACCURATE.

INCORRECT
AMOUNTS
WILL DELAY
PROCESSING
OF YOUR
SUBAPPLICATION.

C. NON-FEDERAL MATCH SOURCE: MATCH COMMITMENT LETTER:

- ☒ Use the Local Match Commitment Letter Template to complete this section. File title must be "16C-Local Match Commitment Letter".
- A signed Match Commitment Letter must be provided on agency letterhead.
- The non-federal source of matching funds must be identified by name and type.
- If "other" is selected for funding type, provide a description.
- Provide the date of availability for all matching funds.
- Provide the date of the Funding Match Commitment Letter.
- The funds must be available at the time of submission unless prior approval has been received from DEMA-EM.
- If there is more than one non-federal funding source, provide the same information for each source on an attached document.
- Match funds must be in support of cost items listed in the cost estimate spreadsheet.
- Requirements for donated contributions can be found in 2 CFR 200.306.

Subapplicant Note

Attached supporting documents:

1. [16C. Local Match Commitment Letter](#)

BENEFIT/COST EFFECTIVENESS INFORMATION


17. BENEFIT/COST EFFECTIVENESS INFORMATION

A. BCA INSTRUCTIONS:

FEMA will only consider subapplications from subapplicants that use a FEMA-approved methodology to conduct the Benefit Cost Analysis (BCA). BCA must be legible, complete and well-documented.

- Project BCAs must demonstrate cost-effectiveness through a Benefit Cost Ratio (BCR) of 1.0 or greater.
- Projects with a BCR of less than 1.0 will not be considered for funding.
- Total project cost must be used in the BCA.
- Maintenance of a completed HMGP project is not an eligible reimbursement activity, but must be included in the BCA.

- ☒ BCA Version 6.0 is the only software that is allowed to conduct a BCA. Some project types may qualify for pre-calculated benefits. Additional information on the BCA Toolkit is available at: <https://www.fema.gov/benefit-cost-analysis>.

-  The FEMA BCA Technical Assistance Helpline is available to provide assistance with FEMA's BCA software by calling 1-855-540-6744 or via email at BCHelpLine@FEMA.dhs.gov. The FEMA helpline is only to be utilized for technical assistance questions. The FEMA helpline will not verify the accuracy of your BCA.

B. BCA INFORMATION:

Once the BCA is completed, enter information requested below.

1. **NET PRESENT VALUE OF PROJECT BENEFITS:** \$ 23,935,440

2. TOTAL PROJECT COST ESTIMATE:

\$ 5,413,505

3. BENEFIT COST RATIO:

4.42

C. ANALYSIS TYPE:

- ☐ FLOOD ☐ WILDFIRE ☐ EXEMPT (5% PROJECTS) ☐ EARTHQUAKE
☐ HURRICANE WIND ☐ DROUGHT ☐ PRE-CALCULATED ☐ LANDSLIDE
☒ DAMAGE FREQUENCY ASSESSMENT (DFA)

D. ANALYSIS DATE (date BCA was conducted):

07/01/2022

E. PROVIDE BCA COPIES IN FORMAT DESCRIBED BELOW:

- ☒ Copy the completed BCA toolkit, in its Excel format, and add to file.
☒ Save BCA Report in PDF format and add to file.

Subapplicant Note

Documents included in .zip folder:

1. [17E-1 fema_bca_toolkit-6.0_2016](#)
2. [17E-2. TRW Generator Project - BCA Export Data](#)
3. [17E-3. TRW Generator Project - BC Calculator 6.0 Report](#)

Attached supporting documents:

1. [17E-4. TRW Generator Project - BCA Summary and Narrative](#)
2. [13D-2. Incident Summary - Severe Wind Power Outage - August 16 2020](#)
3. [19A-3. Living River - Project Manager Statement and Report Excerpts](#)
4. [15A_15B_15C. HMGP Project Cost Estimate Spreadsheet and Narrative](#)
5. [18A-2. Williams Generator Service Agreement - Estimate](#)
6. [17E-5. PCRWRD Facility Plan 2016 Excerpt - Population Projections](#)

MAINTENANCE ASSURANCE INFORMATION

18. PROJECT MAINTENANCE INFORMATION:

A. MAINTENANCE ASSURANCE LETTER:

- ☒ Using the Project Maintenance Letter Template, identify all maintenance activities required to preserve the long-term mitigation effectiveness of the project.
- Examples of maintenance include: inspection of the project, cleaning and grubbing, trash removal, replacement of worn out parts, etc.
 - Attach a maintenance schedule, estimated annual costs, and a signed maintenance commitment letter for the useful life of the project.

Subapplicant Note

Attached supporting documents:

1. [18A. Project Maintenance Letter](#)
2. [18A-2. Williams Generator Service Agreement – Estimate](#)

ENVIRONMENTAL INFORMATION

19. ENVIRONMENTAL INFORMATION:

A. FEMA ENVIRONMENTAL CHECKLIST:

- ☒ Complete the FEMA Site Information, Environmental Review, and Checklist and attach to the sub-application. Provide a detailed response to each question. Attach supporting documentation.

Subapplicant Note

Attached supporting documents:

1. [19A. HMGP EHP Checklist](#)
2. [19A-2. PCRWRD EHP Narrative Response](#)
3. [13E. TRW Generator Project - Scope of Work](#)
4. [12F_13E-7_13J. TRW Generator Project - Vicinity-Project-Design Map](#)
5. [13E-3_19A-8. One-Line-Diagram of the TRW Microgrid graphic](#)
6. [19A-12. TRW Site Photos - Gen Project Site and Bldg 84](#)
7. [12D_13E-5_19A-10. TRW Site Aerial Photos](#)
8. [12E-1. PC TRW Project Site Ground Photos](#)
9. [14. TRW Generator Project - Schedule Worksheet](#)
10. [19A-11. IPaC_ Explore Location resources](#)
11. [19A-6. TRW Clearance Letters](#)
12. [19A-7. Las Capas Report](#)
13. [19A-4. FEMA FIRM Map](#)
14. [19A-5. FEMA FIRM Map-Overlay](#)
15. [19A-3. Living River - Project Manager Statement and Report Excerpts](#)
16. [19A-13. Completed Project Reports - Bldg 84 PFC](#)
17. [19A-14. Completed Project Reports - ES53 and Loop Expans](#)
18. [19A-15. PCRWRD Facility Plan 2016 Excerpt - TRW-ANW Jurisdictions Served](#)
19. [19A-16. TRW-ANW Service Areas Map](#)
20. [19A-17. Community Breakdown and Summary](#)

PRINT THIS PAGE – ORIGINAL SIGNATURE IS REQUIRED

PROJECT CONDITIONS

Indicate by checking each box below that you will adhere to these listed project conditions.

- ☒ If during implementation of the project, ground-disturbing activities occur and artifacts or human remains are uncovered, all work will cease and FEMA, DEMA-EM, and the State Historic Preservation Officer (SHPO) will be notified.
- ☒ If deviations from the approved scope of work result in design changes, the need for additional ground disturbance, additional removal of vegetation, or will result in any other unanticipated changes to the physical environment, FEMA will be contacted and a re-evaluation under NEPA and other applicable environmental laws will be conducted.
- ☒ If wetlands or waters of the U.S. are encountered during implementation of the project, not previously identified during project review, all work will cease and FEMA will be notified.
- ☒ Due to the Federally mandated Environmental and Historic Preservation (EHP) review; no construction will occur for this project prior to FEMA and DEMA-EM approval.

AUTHORIZATION

The undersigned does hereby submit this subapplication for financial assistance in accordance with the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) and the State Hazard Mitigation Administrative Plan and certifies that the subapplicant (e.g., organization, city, or county) will fulfill all requirements of the program as contained in the program guidelines and that all information contained herein is true and correct to the best of our knowledge.

Subapplicant Authorized Agent

NAME: F. Jeff Prevatt

TITLE: Deputy Director, Treatment

ORGANIZATION: Pima County Regional Wastewater Reclamation Department

SIGNATURE:

DATE:


6/27/2022