REQUEST FOR QUOTATION
(THIS IS NOT AN ORDER)

THIS RFQ [X] IS [ ] IS NOT A SMALL BUSINESS SET-ASIDE

PAGE 1 OF PAGES 86

1. REQUEST NUMBER	2. DATE ISSUED	3. REQUISITION/PURCHASE REQUEST NUMBER	4. CERT. FOR NAT. DEF. UNDER BDSA REG. 2 AND/OR DMS REG. 1	RATING
140P1526Q0089	06/02/2026	0044044526		

5a. ISSUED BY
NPS, IMR - Arizona MABO
1824 S Thompson St, Ste 200
Flagstaff AZ 86001-2694

6. DELIVER BY *(Date)*
01/30/2027

7. DELIVERY
[X] FOB DESTINATION [ ] OTHER *(See Schedule)*

5b. FOR INFORMATION CALL *(NO COLLECT CALLS)*

NAME	TELEPHONE NUMBER	
	AREA CODE	NUMBER
Taylor Jones	520	780-9294

9. DESTINATION
a. NAME OF CONSIGNEE
NPS Grand Canyon National Park

8. TO:

a. NAME

b. COMPANY

b. STREET ADDRESS
1576 Shuttle Bus Road

c. STREET ADDRESS

c. CITY
Grand Canyon

d. CITY	e. STATE	f. ZIP CODE	d. STATE	e. ZIP CODE
			AZ	86023

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5a ON OR BEFORE CLOSE OF BUSINESS *(Date)*
07/08/2026 1300 MD

IMPORTANT: This is a request for information and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5a. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation or to contract for supplies or service. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications attached to this Request for Quotation must be completed by the quoter.

11. SCHEDULE *(Include applicable Federal, State and local taxes)*

ITEM NUMBER (a)	SUPPLIES/SERVICES (b)	QUANTITY (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)
	Grand Canyon National Park (GRCA) requires the service of backflow prevention assemblies inspection, testing and maintenance. - per attached scope of work - Utilize blank bid schedule - done as a service contract Period of Performance: 07/01/2026 to 01/30/2027				
00010	Annual backflow Prevention Assemblies Inspection, and Testing - Backflow Prevention Assemblies (assemblies) at GRCA and HOAL Delivery: 01/30/2027				

Continued...

12. DISCOUNT FOR PROMPT PAYMENT	a. 10 CALENDAR DAYS (%)	b. 20 CALENDAR DAYS (%)	c. 30 CALENDAR DAYS (%)	d. CALENDAR DAYS NUMBER	d. CALENDAR DAYS PERCENTAGE

NOTE: Additional provisions and representations [ ] are [ ] are not attached.

13. NAME AND ADDRESS OF QUOTER	14. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION	15. DATE OF QUOTATION
a. NAME OF QUOTER		
b. STREET ADDRESS	16. SIGNER	
	a. NAME *(Type or print)*	b. TELEPHONE AREA CODE
c. COUNTY		
d. CITY / e. STATE / f. ZIP CODE	c. TITLE *(Type or print)*	NUMBER

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Previous edition not usable

STANDARD FORM 18 (REV. 6/1995)
Prescribed by GSA-FAR (48 CFR) 53.215-1(a)

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
00020	NOT a funded line item; for invoicing of additional repairs or replacements only - Awardee shall not execute repairs or replacements until approved from COR and CO. - Via a contract modification (Option Line Item) Anticipated Exercise Date 90 ***** The work will be performed park-wide, covering: ¿ South Rim (accessible year-round) ¿ North Rim (closed to the public from December 1 to May 15) ¿ Inner Canyon locations (accessible via foot or helicopter)	1	LS		

I. DESCRIPTION

THIS IS A NOTICE OF INTENT FOR REQUEST FOR QUOTE. This is a combined synopsis/solicitation for commercial services prepared in accordance with FAR Part 12. This announcement constitutes the only solicitation. Offers are being requested and a separate written solicitation will not be issued.

Solicitation number **140P6426Q0062** is issued as a request for quote (RFQ) for backflow inspections within Grand Canyon National Park (GRCA).

This acquisition is set-aside for small business concerns. This solicitation incorporates provisions and clauses by reference. The full text of provisions and clauses may be accessed electronically at www.acquisition.gov.

This requirement is a 100% total small business set-aside. The associated NAICS code is **221310**. The small business size standard is **$41.0 M**. Provisions and clauses are incorporated in this solicitation document.

Anticipated Award Date: **on or before 7/8/2026 with an effective date of 7/13/2026**

To be considered for award your company must obtain a Unique Entity Identifier (UEI). Your company must also be registered in the System for Award Management (SAM) and be considered a small business for the size standard associated with the NAICS code found in block 10 on page one (1) of this solicitation, and this registration must be "active" in SAM at the time of quote/proposal close date/time - as well as, at the time of award and throughout the entire award/contract performance.

Website: https://www.sam.gov

If you have any registration questions or if you need assistance with registration or updating SAM, please contact the National APEX Accelerator nearest you.

Website: Home - National Apex Accelerator Alliance // APEX Accelerators

GENERAL INFORMATION:

This solicitation is a Request for Quote (RFQ) Solicitation issued on Standard Form (SF) SF18. Award of this contract will be made according to FAR Part 12 Acquisition of Commercial Products and Commercial Services. All references to "proposal" in this solicitation shall be understood to mean "quotation." Quotations shall be evaluated in an impartial manner and consideration given to those with the highest perceived value to the government.

Contract Type

The contract awarded as a result of this solicitation will be a firm-fixed price commercial contract/award.

COMPLIANCE WITH RECENT EXECUTIVE ORDERS 14148/14208

System updates may lag policy updates. The System for Award Management (SAM) may continue to require entities to complete representations based on provisions that are not included in agency solicitations, including 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals—Representation, and paragraph (t) of 52.212-3, Offeror Representations and Certifications—Commercial

Products and Commercial Services. Agencies will not consider or use these representations. Entities are not required to, nor are they able to, update their entity registration to remove these representations in SAM.

The following Federal Acquisition Regulation (FAR) provisions and clauses shall be applicable to this solicitation and award: For full text version of these provisions and clauses, please go to the following internet address: www.acquisition.gov

II. SUBMISSION REQUIREMENTS

Closing Response Date/Time:	**Quotes are due by 8 July 2026 @ 1:00PM AZ time.**
Contact Point or Contracting Officer:	**Taylor Jones - email –** taylor_jones**@ios.doi.gov**
Questions regarding this solicitation:	**Will only be accepted until 1 July 2026 @ 1:00PM AZ time.**
Submission Requirements / How to Submit an Offer:	Offers to be submitted via email Please see page #10 of this solicitation for submission requirement details.

III. LIST OF LINE-ITEMS

ITEM NUMBER	ITEM	QUANTITY	UNIT OF MEASURE
0010	The contractor shall conduct testing on all designated backflow prevention assemblies, record results (pass/fail determination), and identify deficiencies.	1	LS
0020	If deficiencies are found, the contractor shall provide optional repair or replacement services under the same contract upon	1	LS

	approval from the Contracting Officer (CO) via a contract modification with a Not-To-Exceed.		

IV. DESCRIPTION OF REQUIREMENT(S)

Independently, and not as an agent of the Government, the contractor/vendor shall furnish all labor, materials, and equipment necessary to provide Backflow inspections and repairs at GRCA.

Please see attached Statement of Work and other supporting documentation for details outlining additional pertinent information of this requirement.

V. DELIVERY INFORMATION/TERMS / PERIOD OF PERFORMANCE

Please see attached Statement of Work and other supporting documentation for details outlining delivery information/terms/instructions and period of performance, to include locations.

VI. LIST OF PROVISIONS (BY REFERENCE)

52.252-1 Solicitation Provisions Incorporated by Reference (Feb 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es): www.acquisition.gov

(End of provision)

52.252-5 Authorized Deviations in Provisions (Nov 2020)

As prescribed in 52.107(e), insert the following provision in solicitations that include any FAR or supplemental provision with an authorized deviation. Whenever any FAR or supplemental provision is used with an authorized deviation, the contracting officer shall identify it by the same number, title, and date assigned to the provision when

it is used without deviation, include regulation name for any supplemental provision, except that the contracting officer shall insert "(DEVIATION)" after the date of the provision.

Authorized Deviations in Provisions (Nov 2020)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.
(b) The use in this solicitation of any _____ *[insert regulation name]*(48 CFR Chapter_____) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

52.203-18 Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements-Representation (Jan 2017)
52.204-7 System for Award Management - Registration (Nov 2024) (DEVIATION Mar 2026)
52.209-2 Prohibition on Contracting with Inverted Domestic Corporations – Representation (Nov 2015) (DEVIATION May 2026)
52.212-1 Instructions to Offerors - Commercial Products and Commercial Services (Sep 2023) (DEVIATION Mar 2026)
52.222-48 Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Certification (May 2014) (DEVIATION May 2026)
52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services-Certification (May 2014) (DEVIATION May 2026)
52.225-20 Prohibition on Conducting Restricted Business Operations in Sudan-Certification (Aug 2009) DEVIATION DATE
52.225-25 Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran-Representation and Certifications (Jun 2020) DEVIATION DATE
52.240-90 Security Prohibitions and Exclusions Representations and Certifications (Dec 2025) (DEVIATION Mar 2026)

VII. LIST OF CLAUSES (BY REFERENCE)

52.252-2 Clauses Incorporated by Reference (Feb 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address (es): www.acquisition.gov

(End of clause)

52.252-6 Authorized Deviations in Clauses (Nov 2020)

As prescribed in 52.107(f), insert the following clause in solicitations and contracts that include any FAR or supplemental clause with an authorized deviation. Whenever any FAR or supplemental clause is used with an

authorized deviation, the contracting officer shall identify it by the same number, title, and date assigned to the clause when it is used without deviation, include regulation name for any supplemental clause, except that the contracting officer shall insert "(DEVIATION)" after the date of the clause.

Authorized Deviations in Clauses (Nov 2020)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.
(b) The use in this solicitation or contract of any _____ *[insert regulation name]* (48 CFR _____) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

52.203-17 Contractor Employee Whistleblower Rights (Nov 2023)
52.203-19 Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (Jan 2017)
52.204-9 Personal Identity Verification of Contractor Personnel (Jan 2011)
52.204-13 System for Award Management Maintenance (Oct 2018) (DEVIATION Mar 2026)
52.204-19 Incorporation by Reference of Representations and Certifications (Dec 2014)
52.204-91 Contractor Identification (DEVIATION Mar 2026)
52.209-6 Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, Proposed for Debarment, or Voluntarily Excluded (Jan 2025) (DEVIATION May 2026)
52.209-10 Prohibition on Contracting with Inverted Domestic Corporations (Nov 2015) (DEVIATION May 2026)
52.212-4 Terms and Conditions—Commercial Products and Commercial Services (Nov 2023) (DEVIATION Mar 2026)
52.219-6 Notice of Total Small Business Set-Aside (Mar 2020) (DEVIATION Jan 2026)
52.222-3 Convict Labor (Jun 2003) (DEVIATION May 2026)
52.222-37 Employment Reports on Veterans (Jun 2020) (DEVIATION May 2026)
52.222-41 Service Contract Labor Standard (Aug 2018) (DEVIATION May 2026)
52.222-42 Statement of Equivalent Rates for Federal Hires (May 2014)
52.222-43 Fair Labor Standards Act and Service Contract Labor Standards-Price Adjustment (Multiple Year and Option Contracts) (Aug 2018) (DEVIATION May 2026)
52.222-44 Fair Labor Standards Act and Service Contract Labor Standards-Price Adjustment (May 2014) (DEVIATION May 2026)
52.222-50 Combating Trafficking in Persons (Oct 2025) (DEVIATION May 2026)
52.222-51 Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment-Requirements (May 2014) (DEVIATION May 2026)
52.222-53 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services-Requirements (May 2014) (DEVIATION May 2026)
52.222-54 Employment Eligibility Verification (Jan 2025) (DEVIATION May 2026)
52.222-62 Paid Sick Leave Under Executive Order 13706 (Jan 2022) (DEVIATION May 2026)
52.222-90 Addressing DEI Discrimination by Federal Contractors (Mar 2026) (DEVIATION May 2026)
52.223-5 Pollution Prevention and Right-to-Know Information (May 2024)
52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008)
52.223-11 Ozone-Depleting Substances (May 2024) (DEVIATION May 2026)
52.223-12 Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners (May 2024) (DEVIATION May 2026)
52.223-23 Sustainable Products (May 2024) (DEVIATION May 2026)

52.225-5 Trade Agreements (Nov 2023)
52.225-19 Contractor Personnel in a Designated Operational Area or Supporting a Diplomatic or Consular Mission Outside the United States (May 2020)
52.225-26 Contractors Performing Private Security Functions Outside the United States (Oct 2016)
52.226-7 Drug-Free Workplace (May 2024)
52.226-8 Encouraging Contractor Policies to Ban Text Messaging While Driving (May 2024)
52.228-5 Insurance -- Work on a Government Installation (Jan 1997)
52.229-12 Tax on Certain Foreign Procurements (Feb 2021) (DEVIATION Oct 2025)
52.232-29 Terms for Financing of Purchases of Commercial Products and Commercial Services (Nov 2021)
52.232-30 Installment Payments for Commercial Products and Commercial Services (Nov 2021)
52.232-33 Payment by Electronic Funds Transfer-System for Award Management (Oct 2018)
52.232-36 Payment by Third Party (May 2014) DEVIATION DATE
52.232-40 Providing Accelerated Payments to Small Business Subcontractors (Mar 2023)
52.232-90 Fast Payment Procedure (Dec 2025) DEVIATION DATE
52.233-3 Protest after Award (Aug 1996) DEVIATION DATE
52.233-4 Applicable Law for Breach of Contract Claim (Oct 2004) DEVIATION DATE
52.237-2 Protection of Government Buildings, Equipment, and Vegetation (Apr 1984)
52.240-91 Security Prohibitions and Exclusions (Dec 2025) (DEVIATION Mar 2026)
52.240-93 Basic Safeguarding of Covered Contractor Information Systems (Dec 2025) (DEVIATION Mar 2026)
52.249-4 Termination for Convenience of the Government (Services) (Short Form) (Apr 1984)
52.253-1 Computer Generated Forms (Jan 1991)

VIII. PROVISIONS AND CLAUSES INCORPORATED BY FULL TEXT

52.209-11 Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law (Feb 2016) (DEVIATION May 2026)

(a) As required by sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Pub. L 113-235), and similar provisions, if contained in subsequent appropriations acts, the Government will not enter into a contract with any corporation that--

(1) Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless an agency has considered suspension or debarment of the corporation and made a determination that suspension or debarment is not necessary to protect the interests of the Government; or

(2) Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless an agency has considered suspension or debarment of the corporation and made a determination that this action is not necessary to protect the interests of the Government.

(b) The Offeror represents that—

(1) It is [ ] is not [ ] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and

(2) It is [ ] is not [ ] a corporation that was convicted of a felony criminal violation under a Federal law within the preceding 24 months.

(End of provision)

ADDENDUM TO 52.212-1 INSTRUCTIONS TO OFFERORS - COMMERCIAL PRODUCTS AND COMMERCIAL SERVICES (Sep 2023) (DEVIATION Mar 2026)

Quotes must be in accordance with and in the order detailed in this section. Failure to submit quotes according to the instructions provided within the solicitation may result in the respondent's quote not being considered for award.

All interested parties shall be registered in the System for Award Management or SAM at time an offer or quotation is submitted.

The offerors shall submit a quote to the contract specialist by email to: **taylor_jones@ios.doi.gov**

Offers shall submit the following information in its entirety:

a) CHECKLIST FOR QUOTE SUBMITTAL:

Document to Complete in Quote Package	**Check Box**
Checklist for Quote Submittal – the checklist is this page of the solicitation completed as the first page in the package	☐
Signed acknowledgement of SF18	☐
Signed amendments if applicable	☐
Price Schedule – complete the attached price schedule that has been provided in this solicitation	☐
Completed Provisions in this solicitation as applicable	☐
Provide a capabilities statement or project narrative that demonstrates how the company will successfully meet the needs of the statement of work (limit to two pages) per the "TO SUBMIT AN OFFER" section below	☐
Three prior experiences of projects in similar size and scope per the "TO SUBMIT AN OFFER" section below within the past five years to include: • Brief description of project • Point of contact information NOTE: Contact information SHALL be provided, to include a brief description of the project, as well as point of contact information so that the Government may contact and confirm the information provided. Additionally, the Government may consider any and all other sources of information, including, but not limited to, contacting the contractor or contracting officer of the projects provided or some other means.	☐

b) Price Schedule:

Item Number	Description	Price
10	The contractor shall conduct testing on all designated backflow prevention assemblies, record results (pass/fail determination), and identify deficiencies	$
20	Not-to-Exceed amount: If deficiencies are found, the contractor shall provide optional repair or replacement services under the same contract upon approval from the Contracting Officer (CO) via a contract modification with a Not-To-Exceed.	$
	Total	$

c) Contractor Core Data:

Offerors Company Name:_____

Cage Code / Offerors Unique Entity Identifier (UEI):_____

Offerors POC:_____

Offerors POC Email/Phone:_____

TO SUBMIT AN OFFER

1. **Checklist for quote submittal listed above as the first page in the quote submittal package.**

2. **Completed and signed SF18**

   NOTE: Please check SAM.gov regularly in any case an amendment was posted, as this amendment must be reviewed, acknowledged by signing the SF30 and ensuring that it is provided with your final quote/proposal package.

3. **Complete attached Price Schedule and insert total unit price and/or amount, in reference to ALL line items listed. Must ensure that this document is not edited for any reason (outside of adding units of measure, quantities, etc…) and the unedited Price Schedule is provided with final pricing – if needing to make edits or alter the document, provide an addendum outlining these changes or additional information wanting to make apparent to the evaluators.**

   NOTE: Alternate quotes/proposals will not be accepted. Provide us with the final offer total, as this will be the evaluated price.

4. **Ensure that Prior Experience references and examples, that are similar in scope to this type of service, are provided -** Prior experience is the factual documentation or narrative of a firm's experience, qualifications, and capability, to meet the acceptability standard. Offerors are to provide references **(preferably a minimum of 3)** that provide information on the **performance quality** of work on similar projects/services as outlined in the Statement of Work – please ensure they are as relevant as can be for this requirement.

5. **Complete a Capabilities Statement or Project Narrative demonstrating knowledge of, and experience in, the products described in the attached Specifications.**

6. **Completed Provisions in this solicitation as applicable**

7. **Submit all required documents via email by the date and time listed in this solicitation.** Offerors are responsible for submitting quotes/proposals so as to reach the Government office designated in the solicitation by the time specified in the solicitation. Offerors should consider and account for potential delays in transmissions between when an electronic submission is submitted and when an electronic submission is received. Late quotes/proposals will not be accepted.

8. **Your company must also be registered as a small business, at the time of the quote/proposal close date/time - as well as, at the time of award and throughout the entire award/contract performance - in System for Award Management (SAM) and be considered a small business for the size standard associated with the NAICS code found in block 10 on page one (1) of this solicitation. This registration must be "active" in SAM. NO EXCEPTIONS.** The direct SAM website for registration is: https://www.sam.gov.

REGISTRATION REQUIREMENTS

1. To be considered for award your company must obtain a Unique Entity Identifier (UEI).

2. Your company must also be registered as a small business, at the time of the quote/proposal close date/time - as well as, at the time of award and throughout the entire award/contract performance - in System for Award Management (SAM) with the NAICS code found in block 10 on page one (1) of this solicitation. This registration must be "active" in SAM. NO EXCEPTIONS. The direct SAM website for registration is: https://www.sam.gov.

   If you have any registration questions or need assistance, please contact the SAM helpdesk. If you have any registration questions or if you need assistance with registration or updating SAM, please contact the National APEX Accelerator nearest you.

   Website: Home - National Apex Accelerator Alliance // APEX Accelerators

(End of addendum)

52.212-2 Evaluation — Commercial Products and Commercial Services (Nov 2021) (DEVIATION Mar 2026)

(a) Evaluation factors: The Government will award a contract resulting from this solicitation to the responsible Offeror whose offer conforming to the solicitation will be most advantageous to the Government, price and other factors considered. The following factors will be used to evaluate offers:

Evaluation factors other than price when combined are significantly more important than price.

(i) price;

(ii) technical capability of the item offered to meet the Government requirement;

(iii) prior experience

SEE AWARD SELECTION PROCESS section below

(b) *Notice of award*. A written notice of award or acceptance of an offer furnished to the successful Offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either

party. Before the offer's specified expiration time, the Government may accept an offer (or part of an offer), whether or not there are negotiations after its receipt, unless a written notice of withdrawal is received before award.

(End of provision)

AWARD SELECTION PROCESS

Award will be made in accordance with FAR Part 12 to the Offeror that provides the best value to the government based on price, technical, and prior experience. This solicitation is not stating nor required to state the importance assigned to each evaluation factor and/or sub factor (FAR 12.203(c)(2)).

1. **Price:** A price evaluation will be performed to determine the reasonableness of the proposed price. Reasonableness will be determined considering other competitive prices received and comparison to the independent Government estimate. If multiple contract line items are included in the price schedule, prices will also be evaluated to determine whether any line items are unbalanced. Offerors are cautioned to distribute costs appropriately.

2. **Technical:** Written confirmation that company specializes in, or has sufficient documented direct experience in, providing all labor, material, tools, supervision and travel necessary to perform the service outlined, and in accordance with, the attached Statement of Work (SOW). **Complete a capability statement/project narrative – please see "TO SUBMIT AN OFFER" section for details on which to submit for this requirement.**

3. **Prior Experience:** Complete **Prior Experience references as described in "TO SUBMIT AN OFFER" section,** that can confirm your company has successfully completed similar tasks outlined in the Statement of Work.

Quotes will receive a preliminary review to determine whether the quote contains sufficient information, as required by the solicitation, to allow the government to perform a meaningful evaluation. If the results of this preliminary review indicate that the quote lacks sufficient information to allow a meaningful evaluation to be conducted, the Contract Specialist/Contracting Officer may eliminate the quote from further evaluation and consideration for an award.

52.217-7 Option for Increased Quantity-Separately Priced Line Item (Mar 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within *3 months.* Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

Electronic Invoicing and Payment Requirements – Invoice Processing Platform (IPP) (Feb 2021)

Payment requests must be submitted electronically through the U. S. Department of the Treasury's Invoice Processing Platform System (IPP).

"Payment request" means any request for contract financing payment or invoice payment by the Contractor. To constitute a proper invoice, the payment request must comply with the requirements identified in the applicable Prompt Payment clause included in the contract, or the clause 52.212-4 Contract Terms and Conditions - Commercial Products and Commercial Services included in commercial item contracts. The IPP website address is: https://www.ipp.gov.

Under this contract, the following documents are required to be submitted as an attachment to the IPP invoice:

1. Copy of vendor invoice document in PDF format, which shows pricing breakdown for all items being invoiced for and must include the contract number, date(s) of service (if applicable), date of invoice, and the vendor's standard invoice letterhead.

The Contractor must use the IPP website to register access and use IPP for submitting requests for payment. The Contractor Government Business Point of Contact (as listed in SAM) will receive enrollment instructions via email from the Federal Reserve Bank of St. Louis (FRBSTL) within 3 - 5 business days of the contract award date. Contractor assistance with enrollment can be obtained by contacting the IPP Production Helpdesk via email IPPCustomerSupport@fiscal.treasury.gov or phone (866) 973-3131.

If the Contractor is unable to comply with the requirement to use IPP for submitting invoices for payment, the Contractor must submit a waiver request in writing to the Contracting Officer with its proposal or quotation.

(End of clause)

1452.201-70 Authorities and Delegations (Sep 2011)

(a) The Contracting Officer is the only individual authorized to enter into or terminate this contract, modify any term or condition of this contract, waive any requirement of this contract, or accept nonconforming work.

(b) The Contracting Officer will **designate a Contracting Officer's Representative (COR) at time of award.** The COR will be responsible for technical monitoring of the contractor's performance and deliveries. The COR will be appointed in writing, and a copy of the appointment will be furnished to the Contractor. Changes to this delegation will be made by written changes to the existing appointment or by issuance of a new appointment. The COR for this contract will be:

(c) The COR is not authorized to perform, formally or informally, any of the following actions:

(1) Promise, award, agree to award, or execute any contract, contract modification, or notice of intent that changes or may change this contract;

(2) Waive or agree to modification of the delivery schedule;

(3) Make any final decision on any contract matter subject to the Disputes Clause;

(4) Terminate, for any reason, the Contractor's right to proceed;

(5) Obligate in any way, the payment of money by the Government.

(d) The Contractor shall comply with the written or oral direction of the Contracting Officer or authorized representative(s) acting within the scope and authority of the appointment memorandum. The Contractor need not proceed with direction that it considers to have been issued without proper authority. The Contractor shall notify the Contracting Officer in writing, with as much detail as possible, when the COR has taken an action or has issued direction (written or oral) that the Contractor considers to exceed the COR¿s appointment, within 3 days of the occurrence. Unless otherwise provided in this contract, the Contractor assumes all costs, risks, liabilities, and consequences of performing any work it is directed to perform that falls within any of the categories defined in paragraph (c) prior to receipt of the Contracting Officer's response issued under paragraph (e) of this clause.

(e) The Contracting Officer shall respond in writing within 30 days to any notice made under paragraph (d) of this clause. A failure of the parties to agree upon the nature of a direction, or upon the contract action to be taken

with respect thereto, shall be subject to the provisions of the Disputes clause of this contract.

(f) The Contractor shall provide copies of all correspondence to the Contracting Officer and the COR.

(g) Any action(s) taken by the Contractor, in response to any direction given by any person acting on behalf of the Government or any Government official other than the Contracting Officer or the COR acting within his or her appointment, shall be at the Contractor's risk.

(End of clause)

1452.228-70 Liability Insurance – Department of the Interior (Jul 1999)

(a) The Contractor shall procure and maintain during the term of this contract and any extension thereof liability

insurance in form satisfactory to the Contracting Officer by an insurance company which is acceptable to the Contracting Officer. The named insured parties under the policy shall be the Contractor and the United States of America. The amounts of the insurance shall be not less than as follows:

$100,000.00 each person

$500,000.00 each occurrence

$500,000.00 property damage

(b) Each policy shall have a certificate evidencing the insurance coverage. The insurance company shall provide an endorsement to notify the Contracting Officer 30 days prior to the effective date of cancellation or termination of the policy or certificate; or modification of the policy or certificate which may adversely affect the interest of the Government in such insurance. The certificate shall identify the contract number, the name and address of the Contracting Officer, as well as the insured, the policy number and a brief description of contract services to be performed. The contractor shall furnish the Contracting Officer with a copy of an acceptable insurance certificate prior to beginning the work.

(End of clause)

Prohibition of All Terrain Vehicles (ATVs) (Jul 1996)

The contractor is prohibited from utilizing All-Terrain Vehicles (ATV)s on National Park Service lands. ATV is defined as: A motorized off-highway vehicle (OHV) traveling on four or more low-pressure tires, having a seat to be straddled by the operator and a handlebar for steering control.

Use of Utility Terrain Vehicles (UTVs) are permitted. UTV (also called a side-by-side) is defined as: A motorized OHV having four or more low pressure tires, designed with side-by-side seats, seatbelts, steering wheel, and optional cab, brush cage, or ROPS.

(End of clause)

IX. ANY OTHER PERTINENT INFORMATION

Contract Administration Data

Taylor Jones
Contracting Officer
National Park Service
Telephone No. (520) 780 9294
Email: taylor_jones@ios.doi.gov

LIST OF ATTACHMENTS: (please view and download all applicable attachments from https://www.sam.gov)

1. Statement of Work
2. SCA Wage Determination

Date: April 30, 2026

National Park Service
U.S. Department of the Interior
Grand Canyon National Park
Facility Management & Engineering

Backflow Prevention Assemblies Inspection, Testing, and Maintenance

PR# 0044044526

Solicitation #:140P1526Q0089

1 DESCRIPTION OF WORK

This contract encompasses the annual testing and inspection of 313 Backflow Prevention Assemblies (assemblies) as well as the repair, replacement, and installation of backflow prevention assemblies, as needed, throughout Grand Canyon National Park (see Attachment 1). The contractor shall conduct testing on all designated backflow prevention assemblies, record results (pass/fail determination), and identify deficiencies. If deficiencies are found, the contractor shall provide additional repair or replacement services under the same contract upon approval from the Contracting Officer (CO) via a contract modification under CLIN 0020

1.1 LOCATION

The work will be performed park-wide, covering:

- South Rim (accessible year-round)
- North Rim (closed to the public from December 1 to May 15)
- Inner Canyon locations (accessible via foot or helicopter)

1.2 BACKGROUND

Grand Canyon National Park operates a complex water distribution system requiring periodic testing and maintenance of backflow prevention assemblies to comply with regulatory standards. This contract supports the park's water safety program by ensuring all assemblies function correctly to prevent contamination.

2 AWARD

2.1 ANNUAL INSPECTION, TESTING, AND MAINTENANCE

Inspect, test, and perform basic maintenance on 313 Backflow Prevention Assemblies identified in Attachemnt 1. Provide individual and consolidated reports for each test. Provide a quote for correcting all identified deficiencies. All reports on inspections must be submitted no later than 5 December 2026.

2.2 REPAIR AND REPLACEMENT

Repair or replace approved assemblies with identified deficiencies. This includes installing new assemblies where one may not exist but should by regulation.

Repairs and replacements will be determined based on submitted reports and deficiencies and the approved Price List. A modification will be issued to the contract for any repairs to be performed.

2.3 OPTIONS:

Annual inspection, testing, and maintenance for 16 Backflow Prevention Assemblies located at Horace Albright Training Center (HOAL) located in Grand Canyon Village, AZ. See Attachment 2. All reports on inspections must be submitted no later than 5 December 2026.

3 GOVERNMENT FURNISHED EQUIPMENT, MATERIALS, AND SERVICES

3.1 FLIGHT SERVICES

- Helicopter services (two round trips per inspection cycle) to and from inner canyon locations (Phantom Ranch, Havasupai Gardens, Manzanita, Roaring Springs) will be provided at no cost to the contractor for no more than 2 personnel.
- Flights for repairs will be negotiated on a case-by-case basis.
- Flight requests must be made four weeks in advance via Attachment 4.
- Flights may be delayed or canceled with short notice due to weather and priorities for search and rescue or firefighting support.

4 SUBMITTALS

4.1 REQUIRED SUBMITTALS FOR NOTICE TO PROCEED

- Schedule of Values
- Schedule
- Name, dates of qualifications, and certification numbers of certified tester(s)
- Test Report format or form

4.2 REQUIRED SUBMITTALS

- Individual backflow prevention assembly inspection and testing report (digital).
- Hard copy of each inspection report (printed on front and back of page), bound or in a three-ring binder.
- Consolidated testing report (Excel) with compliance summary (pdf).
- Report listing deficiencies, required repairs, and cost estimate.
- Testing equipment calibration certification.
- Backflow preventor assemblies and replacement parts to be installed; must include certification of parts and origin of supplies

5 ATTACHMENTS

The following attachments are included in the scope by reference.

1. Backflow Prevention Assembly List

2. Backflow Prevention Assembly List - HOAL
3. Cross – Connection Control & Backflow Prevention Program
4. Flight Request Form

6 REQUEST FOR PROPOSAL INSTRUCTIONS

- Provide a detailed methodology for accomplishing, tracking, and reporting the testing and repairs. The procedures shall be in conformance with procedures established by the University of Southern California, Foundation for Cross Connection Control and Hydraulic Research, Manual of Cross Connection Control, 10th Edition and the Arizona Department of Environmental Quality (ADEQ).
- Submit a list of all current state-certified testers with names, dates, and certification numbers.
- Submit a list of no more than three references that include water purveyors.

7 SPECIFICATIONS

7.1 GENERAL

- The contractor shall maintain compliance with OSHA safety standards.
- The contractor shall provide proof of all required licenses and certifications.
- All deviations from these specifications must receive written approval from the CO prior to implementation.
- All annual testing, repairs, replacement, new installations, and final testing will be compliant in accordance with applicable national, federal, state, and local codes, regulations, and guidelines.
- The contractor shall ensure all work complies with Arizona Administrative Code (A.A.C.) R18-4-215 regarding backflow prevention and cross-connection control, as enforced by the Arizona Department of Environmental Quality (ADEQ

7.2 INSPECTION AND TESTING

- All backflow prevention assembly testing, repair, and installation shall conform to the standards set forth by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research and Arizona Department of Environmental Quality (ADEQ) regulations.
- Installation and repair work shall be completed in accordance with the latest National Plumbing Code and industry best practices.
- All testing equipment must be properly calibrated and certified, with documentation provided in submittals.

- Tag all passing assemblies with a testing tag that provides the device serial number, date of the test, tester certification number, company name and contact information, and any additional chemicals.
- If an assembly fails, the contractor must attempt basic troubleshooting of cleaning seals and checking for debris.
- Any assembly containing lead must be noted as requiring replacement in order to comply with the Environmental Protection Agency's Lead and Copper Rule Improvements.

7.3 SCHEDULE

- The inspection schedule will reflect accomplishing all inspections within 45 days from the start of inspections.
- No inspections may be scheduled on federal holidays or weekends unless approved by the Contracting Officer's Representative. Submit requests no less than 3 weeks in advance.
- Inspections must occur between the hours of 0700 and 1800; for housing units, the hours shall be 0800 and 1700.

7.4 REPAIR AND INSTALLATION

- All replacement parts and new installations shall be lead-free and meet NSF/ANSI 61 and NSF/ANSI 372 standards for potable water components.
- Materials used for repair or replacement shall match existing components in size, type, and performance characteristics unless otherwise approved by the Contracting Officer's Representative.
- The contractor shall ensure all repaired and newly installed devices are tested and verified operational before final acceptance by the government.

7.5 REPORTING

Provide individual reports for each backflow inspected, two pictures of each backflow inspected, and a consolidated report.

7.5.1 Individual reports

Digital backflow preventor assembly reports shall be submitted individually in pdf format along.

File names to match the Unique ID provided in Attachment 1 and include the date of the inspection in YYYYMMDD format. Example: 81634_02F_20260930.pdf

Grouped reports will not be accepted.

Information on individual reports to match information on the consolidated report.

Required information on the individual reports are:

- Unique ID
- File Number
- Connection Type
- Hazard type
- Manufacturer
- Size
- Model
- Serial number
- Test date
- Test results
- Pressure readings
- Test method
- Test equipment calibration date
- Test equipment serial number
- Repairs made
- Corrective action required (if any)
- Name and ID of tester

7.5.2 Photograph requirements

Each inspected assembly requires two photographs to be delivered in jpg format with a size no less than 6 mega pixels.

One photograph to show the device information plate (showing serial number).

One photograph to show the side profile showing its location within the room or outside of a structure.

File names to match the Unique ID provided in Attachment 1 and include the date of the inspection in YYYYMMDD format. Examples: 81634_02F_20260930_1.jpg ; 81634_02F_20260930_2.jpg

7.5.3 Consolidated Report

- The consolidated report shall be submitted in Excel or CSV format. Use Attachment 1 as the format and basis of information required. The contractor is responsible for verifying all information as accurate, updating incorrect information, and completing missing information in each column for the assemblies identified within this contract.
- GPS coordinates (Latitude and Longitude) for the assembly location, projected in NAD 1983 UTM Zone 12N.
- Needed parts and repairs to bring the assembly into compliance if the assembly is out of compliance
- The identified corrective actions must include a description of the necessary repairs or replacements and parts required along with any special conditions or constraints.

7.6 ASSEMBLIES FOR FIRE SUPPRESSION SYSTEMS

Where assemblies serve fire suppression systems, all inspection, testing, and maintenance shall conform to National Fire Protection Association (NFPA) 25 and 72. Where any NFPA standard says “should”, the contractor shall take it to mean “shall”.

Unique ID	Inventory File #	Area	Building #	Building Name	Address	GPS	Elevation (feet)	Connection Type	Hazard Type	Use Codes	Room	Mfg.	Type	Size (inches)	Model#	Serial #	Install Date
83785_02P	2	South Rim	0323	Elementary School	Boulder St			P/D	Non-Health Hazard		BLDG 100 Boiler Room (Boiler room is located just beyond the back to the restroom.)	Wilkins	RP	0.75	975	131891	Unknown
83782_01P	3	South Rim	0227	Grand Canyon Old School Bldg	Boulder St			P/D	Non-Health Hazard		BLDG 200 Boiler Room						
83974_01P	4	South Rim	1452	Multi-Purpose Building	48 Boulder St			P/D	Non-Health Hazard		BLDG 300-Boiler Room	Wilkins	RP	0.75	975	S63303	Unknown
83974_02F	5	South Rim	1452	Multi-Purpose Building	48 Boulder St			Fire	Non-Health Hazard		BLDG 300 (Sprinkler Room) #306		RP				
83787_01P	6	South Rim	0324	High School	48 Boulder St			P/D	Non-Health Hazard		BLDG 400 Boiler Room #416		RP				
83787_02F	7	South Rim	0324	High School	48 Boulder St			Fire	Non-Health Hazard		BLDG 400 (Sprinkler Room)		RP				
83791_01P	8	South Rim						P/D	Non-Health Hazard		BLDG 500-Boiler Room	Wilkins	RP	0.75	975	122145	Unknown
84325_01F	9	South Rim	0862	School Maintenance Office	Center St			Fire	Non-Health Hazard		BLDG 600 (John Vest Maintenance and Transportation Facility Building) Boiler Room		RP				
83785_01F	1 FIRE	South Rim	0323	Elementary School	Boulder St			Fire	Non-Health Hazard		BLDG 100 (Access door is on the northwest corner of the building facing north. The device is located under the flooring in a crawlspace room.)	Watts	DC	4	770	1912	Unknown
81634_02F	13-2B Fire Main Line	South Rim	1576	NPS Warehouse	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 45" West	6890	Fire	Non-Health Hazard		FMD Warehouse Bldg (Main Line)	Ames	DC	8	2000SS	131494-1202	Unknown
33514_01F	14B	South Rim	0103	Ranger Operations	Center St			Fire	Non-Health Hazard		River Operation	Ames	DC	4	Colt 2000	LL1983	Unknown
34552_08P	39H	South Rim	0444	Clinic	1 Clinic Road			P/D	Non-Health Hazard		Admin, Residence, 15662	Febco	DC	0.75		825YRP	Unknown
35073_01P	23-1B Main Line	South Rim	1516	La Petite	1 North Mohave			P/D	Non-Health Hazard		(KLC) Kaibab Learning Center / Child Care Center	Watts	DC	4	709	170633	Unknown
34552_02P	4-2B Boiler Room North	South Rim	0444	Clinic	1 Clinic Road			P/D	Non-Health Hazard		Boiler Room North	Watts	RP	0.75	009 M3	263727	Unknown
34552_03P	4-3B Boiler Room South	South Rim	0444	Clinic	1 Clinic Road			P/D	Non-Health Hazard		Fire Station #1, Boiler Room, South	Watts	RP	0.75	009 M3	277420	Unknown
225796_03F	25-3B	South Rim	1708	Science and Resource Mgmt Bldg	17 South Entrance Road	36° 3' 21" North, 112° 7' 13" West	6980	Fire	Non-Health Hazard		SRM Science Center - Dutton	Ames	DC	4	Maxim 200	MC0908	Unknown
33683_02F	31-2B FIRE	Desert View	0114	Tusayan Museum	Tusayan Ruins	36° 0' 50" North, 111° 51' 59" West	7200	Fire	Health Hazard		SR / DV - and Ruins Site, Ranger Office Building, Fire Suppression / Utility Room	Watts	DC	1	LF007M-1	194122	7/15/2024
33034_02F	42-2H FIRE	South Rim	0012	Single Family Res	12 Kaibab St	36° 3' 15" North, / 112° 8' 5" West	6950	Fire	Health Hazard		Kaibab 12	Ames	DC	1.25	2000B	13081	Unknown
34552_04F	4-4B FIRE Boiler Room Riser	South Rim	0444	Clinic	1 Clinic Road			Fire	Non-Health Hazard		Fire Station #1, Boiler Room Riser	Ames	DC	4	2000 SSF	2009050302	Unknown
35085_01P	5-1B	South Rim	1524	Maswik Transportation Center/BRO	Maswik Lodge Area	36° 3' 26" North, 112° 8' 35" West	6870	P/D	Non-Health Hazard		Maswik Transportation	Watts	RP	1	LF 009 M2	358441	5/20/2025
35085_02F	5-2B Fire	South Rim	1524	Maswik Transportation Center/BRO	Maswik Lodge Area			Fire	Non-Health Hazard		Maswik Transportation	Ames	RP	4	4000 SS	108470	Unknown
36340_03F	77-3H FIRE	South Rim	0024B	Duplex	1B Tonto St			Fire	Health Hazard		Tonto 1A	Watts	DC	1	077M1-QT	479995	Unknown
33007_02F	79-2H FIRE	South Rim	0007A	Garage & Shed	Tonto St	36° 3' 16" North, / 112° 7' 56" West	6950	Fire	Health Hazard		Tonto 9A	Watts	DC	0.75	007M3 QT	B06786	Unknown
35147_01F	85-1H FIRE Bypass	Desert View	1712	Eight-Plex Housing Unit	Desert View	36° 3' 16" North, / 112° 8' 18" West	6890	Fire	Health Hazard		DV Nankoweap (Bypass)	Ames	DC	0.75	Flowmatic DCVE	A2504	Unknown
33515_01P	8B	South Rim	0105	Visitor Center	South Entrance Rd	36° 3' 18" North, 111° 8' 19" West	6880	P/D	Non-Health Hazard		Federal Magistrate Court Center, Boiler Room	Wilkins	RP	1.5	Z975XL2	W419314	9/12/2023
34433_01P	9B	Desert View	0295	Ranger Station	Desert View	36° 2' 7" North, 111° 49' 49" West	7450	P/D	Non-Health Hazard		DV, GRCA East Park Entrance	Watts	RP	1	LF 009 M2	358440	5/19/2025
81635_01P	10-1B Main Line	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area	36° 2' 2" North, 112° 7' 43" West	6890	P/D	Non-Health Hazard		FMD Auto Shop Bldg.	Watts	RP	1.25	LF 009 M2	43110	5/20/2025
81635_02P	10-2B Supply Line	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area	36° 2' 2" North, 112° 7' 43" West	6890	P/D	Non-Health Hazard		FMD Auto Shop Bldg.	Wilkins	RP	0.75	975 XL2	ABT8565	6/15/2024
81635_03P	10-3B Glycol Tank	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area	36° 2' 2" North, 112° 7' 43" West	6890	P/D	Health Hazard		FMD Auto Shop Bldg. System (Glycol) Make-Up Water / Mixing - Dosing Tank	Watts	RP	1.5	LF 009 QT	436223	5/19/2025
81635_04P	10-4B Washer	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area	36° 2' 1" North, 112° 7' 43" West	6890	P/D	Non-Health Hazard		FMD Auto Shop Bldg.	Wilkins	RP	0.75	975 XL2	ABS3869	05/19/2025

81635_05P	10-5B Wash Bay	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area	36° 2' 2" North, 112° 7' 44" West	6890	P/D	Non-Health Hazard		FMD Auto Shop Bldg., Wash Bay	Wilkins	RP	0.75	975 XL2	ABT8564	12/17/2024
35147_02F	85-2H FIRE Main	Desert View	1712	Eight-Plex Housing Unit	Desert View			Fire	Health Hazard		DV Nankoweap (Main)	Ames	DC	2.5	Colt 300 DCVE	DC-0820	Unknown
33167_01F	89H FIRE	South Rim	0050	Single Family Res	54 Juniper Hill	36° 3' 13" North, / 112° 8' 4" West	6950	Fire	Health Hazard		Juniper Hill 54	Ames	DC	1.25	2000 DC	013079	Unknown
33879_01F	90H FIRE	South Rim	0163	Single Family Res	60 Juniper Hill	36° 3' 13" North, / 112° 8' 6" West	6970	Fire	Health Hazard		Juniper Hill 60	Ames	DC	1.25	2000B	013078	Unknown
81633_03P	11-3B Boiler	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 43" West	6840	P/D	Health Hazard		FMD Main Bldg. Mech. / Boiler Room #122A, Bldg. System (Glycol) Make-Up Water / Heated Water - Boilers 1 and 2 System, "Bottom Assembly"	Watts	RP	1	LF 009 M2-QT-FS	279247	12/17/2024
81633_04N	11-4B Main Line	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 43" West	6890		Non-Health Hazard		FMD Custodial Room #112 - Bldg.	Watts	RP	1.5	LF 009 M2-QT	137622	12/17/2024
87774_02F	91-2H FIRE	South Rim	1580	101-108 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 6" West	6950	Fire	Health Hazard		Paiute Bldg 100	Ames	DC	2.5	Colt 200	LD-0353	Unknown
87775_02F	92-2H FIRE	South Rim	1581	201-208Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 4" West	6950	Fire	Health Hazard		Paiute Bldg 200	Ames	DC	2.5	Colt 200	LD-0379	Unknown
81636_01P	12-1B	South Rim	1578	NPS Enclosed Vehicle Storage	New NPS Maintenance Area	36° 1' 58" North, 112° 7' 43" West	6890	P/D	Health Hazard		FMD Covered Storage Bldg. (Glycol) makeup tank in the next room.	Watts	RP	1.5	LF 009 M2-QT	457725	05/20/2025
87776_02F	93-2H FIRE	South Rim	1582	301-308 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 3" West	6960	Fire	Health Hazard		Paiute Bldg 300	Ames	DC	2.5	Colt 200	KJ-1663	Unknown
87777_02F	94-2H FIRE	South Rim	1583	401-408 Paiute St (Eight Plex), South Rim		36° 2' 55" North, / 112° 8' 1" West	6960	Fire	Health Hazard		Paiute Bldg 400	Ames	DC	2.5	Colt 200	LB-0589	Unknown
81634_01P	13-1B Main Line	South Rim	1576	NPS Warehouse	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 45" West	6890	P/D	Non-Health Hazard		FMD Warehouse Bldg.	Watts	RP	1.25	LF 009 M2	33737	05/20/2025
87778_02F	95-2H FIRE	South Rim	1584	501-508 Paiute St (Eight Plex), South Rim		36° 2' 54" North, / 112° 8' 1" West	6960	Fire	Health Hazard		Paiute Bldg 500	Ames	DC	2.5	Colt 200	LB-0593	Unknown
81634_03F	13-3B Fire Pump	South Rim	1576	NPS Warehouse	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 45" West	6890	Fire	Non-Health Hazard		FMD Warehouse Bldg. (Fire Pump)	Watts	RP	1	LF 009 M2-QT	344062	05/20/2025
87780_02F	96-2H FIRE	South Rim	1585	601-608 Paiute St (Eight Plex), South Rim		36° 2' 54" North, / 112° 8' 1" West	6960	Fire	Health Hazard		Paiute Bldg 600	Ames	DC	2.5	Colt 200	LA-2616	Unknown
235188_02F	97-2H FIRE	South Rim	1586	701-708 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 4" West	6950	Fire	Health Hazard		Paiute Bldg 700	Ames	DC	2.5	Colt 200	LA-2614	Unknown
235189_02F	98-2H FIRE	South Rim	1587	801-808 Paiute St (Eight Plex), South Rim		36° 2' 55" North, / 112° 8' 8" West	6940	Fire	Health Hazard		Paiute Bldg 800	Ames	DC	2.5	Colt 200	LC-0021	Unknown
34552_06F	4-6B FIRE Mech Room	South Rim	0444	Clinic	1 Clinic Road			Fire	Non-Health Hazard		Fire Station #1 Engine Bay - Mech Room	Wilkins	DC	4	350	J14447	Unknown
33515_02P	17B	South Rim	0105	Visitor Center	South Entrance Rd	36° 3' 18" North, 112° 7' 20" West	6970	P/D	Non-Health Hazard		GRCA Headquarters Bldg. Boiler Room (Northside Downstairs Outside)	Wilkins	RP	TBD	975 XL2	3749280	Unknown
34552_07P	4-7B Boiler Room East	South Rim	0444	Clinic	1 Clinic Road			P/D	Health Hazard		Fire Station #1 / GRCA Medical, Boiler Room East Wall / Main Water Line & Service Shut Valve		RP				
34433_02P	19B	Desert View	0295	Ranger Station	Desert View	36° 2' 35" North, 111° 49' 32" West	7470	P/D	Non-Health Hazard		DV, Tribal Welcome Center, Mechanical Room	Watts	RP	1.25	LF 009M2 QT	32103	12/8/2023
33514_02F	20B	South Rim	0103	Ranger Operations	Center St			Fire	Non-Health Hazard		Rangers Operation	Ames	DC	3	Maxim 200	EL1717	Unknown
	4-8B Boiler Room East	South Rim	0444	Clinic	1 Clinic Road			P/D	Health Hazard		Feeds dormitory. Fire Station #1 / GRCA Medical, Boiler Room East Wall / Main Water Line & Service Shut Valve		RP				
33681_01F	36B FIRE	North Rim	0111		1502 Administrative Offices			Fire	Non-Health Hazard								De-scoped from the CY-2025 Testing due to the Dragon Bravo Fire
33681_03P	101H	North Rim	0111	Trail Crew Bunkhouse	111 Admin. Loop Road	36° 12' 52" North, 112° 3' 43" West	8380	P/D	Non-Health Hazard		(Down hill to the southwest, on the northside of the road)	Febco	DC	8	850	F0303140730	Unknown
232907_01P	22-4B	South Rim	2027	Restroom, CVIP Commercial Bus Parking	Canyon View Information Plaza	36° 3' 31" North, 112° 6' 35" West	7050	P/D	Non-Health Hazard		GCVC, Contract Busing Parking Lot - Restroom Facilities	Watts	RP	1	LF 009 M2	358449	5/29/2025
35249_01P	22-5B East R/R	South Rim	2019	Comfort Station	Canyon View Information Plaza	36° 3' 32" North, 112° 6' 30" West	7090	P/D	Non-Health Hazard		GCVC, Kaibab (East) Restroom Facilities Bldg.	Watts	RP	1.5	LF 009 M2	143305	05/29/2025
35249_02P	22-6B West R/R	South Rim	2019	Comfort Station	Canyon View Information Plaza	36° 3' 31" North, 112° 6' 35" West	7050	P/D	Non-Health Hazard		GCVC, Kaibab (West) Restroom Facilities Bldg.	Watts	RP	1.5	LF 009 M2	144078	05/30/2025
35073_02P	23-2B	South Rim	1516	La Petite	1 North Mohave			P/D	Non-Health Hazard		(KLC) Kaibab Learning Center / Child Care Center, Boiler Room	Wilkins	RP	1.5	975 XL2	CFB2736	11/27/2023
83870_01P	24-1B	South Rim	0546	Visitor Contact Verkamps				P/D	Non-Health Hazard		Verkamps Visitor Center, Grand Canyon Conservatory, Boiler Room	Wilkins	RP	1.5	975 XL2	CFB2003	11/27/2023

225796_01P	25-1B	South Rim	1708	Science and Resource Mgmt Bldg	17 South Entrance Road	36° 3' 30" North, 112° 7' 13" West	6990	P/D	Non-Health Hazard		SRM Science Center - Dutton - Main Water Line	Wilkins	RP	1.5	975 XL2	3648962	Unknown
225796_02P	25-2B	South Rim	1708	Science and Resource Mgmt Bldg	17 South Entrance Road	36° 3' 30" North, 112° 7' 13" West	6990	P/D	Non-Health Hazard		SRM Science Center - Dutton - Men's Room / Janitorial Closet	Wilkins	RP	1	975 XL2	3652939	Unknown
35108_01P	26-1B	South Rim	1543	Engine Bay	Shuttle Bus Road			P/D	Non-Health Hazard		Wildland Fire Heliack Base Complex - Shop, Boiler Room	Wilkins	RP	1.5	975XL2	W437626	7/15/2024
35110_01P	27-1B	South Rim	1544	Helicopter Hangar	Shuttle Bus Road			P/D	Non-Health Hazard		Wildland Fire Heliack Base Complex - Helicopter Bay, Boiler Room	Wilkins	RP	1.5	975XL2	CFB 7614	7/15/2024
35113_01P	107-1H	North Rim	1546	Four-Plex Housing Unit	A Cliffrose Court	36° 12' 53" North, 112° 3' 47" West	8350	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	380866	08/15/2024
34119_01P	28-1B	South Rim	0273	Wildland Fire Office	YAKK Camp			P/D	Non-Health Hazard		Wildland Fire Heliack Base Complex - Fire Management Office, Boiler Room	Wilkins	RP	1.5	975XL2	CFB 5183	7/15/2024
35113_02F	107-2H FIRE	North Rim	1546	Four-Plex Housing Unit	A Cliffrose Court	36° 12' 53" North, 112° 3' 47" West	8350	Fire	Health Hazard		Utility Room		RP	1			
35113_03P	108-1H	North Rim	1546	Four-Plex Housing Unit	B Cliffrose Court	36° 12' 48" North, 112° 3' 46" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	413107	08/12/2024
35113_04F	108-2H FIRE	North Rim	1546	Four-Plex Housing Unit	B Cliffrose Court	36° 12' 48" North, 112° 3' 46" West	8340	Fire	Health Hazard		Utility Room		RP	1			
33429_01P	30B	South Rim	0100	Grand Canyon Association	4 Tonto Street	36° 3' 19" North, / 112° 8' 13" West	6910	P/D	Health Hazard		Grand Canyon Conservatory Main Office, Crawl space behind green door	Febco	RP	0.75	LF 825Y	J015714	5/22/2025
35113_05P	109-1H	North Rim	1546	Four-Plex Housing Unit	C Cliffrose Court	36° 12' 48" North, 112° 3' 45" West	8320	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	413090	08/13/2024
35113_06F	109-2H FIRE	North Rim	1546	Four-Plex Housing Unit	C Cliffrose Court	36° 12' 48" North, 112° 3' 45" West	8320	Fire	Health Hazard		Utility Room, Utility Room		RP	1			
35113_07P	110-1H	North Rim	1546	Four-Plex Housing Unit	D Cliffrose Court	36° 12' 48" North, 112° 3' 46" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	380842	08/12/2024
35113_08F	110-2H FIRE	North Rim	1546	Four-Plex Housing Unit	D Cliffrose Court	36° 12' 48" North, 112° 3' 46" West	8340	Fire	Health Hazard		Utility Room		RP	1			
35114_01P	111-1H	North Rim	1547	Eight-Plex Housing Unit	A Cliffrose Court	36° 12' 49" North, 112° 3' 44" West	8350	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	413101	08/14/2024
35114_02F	111-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	A Cliffrose Court	36° 12' 49" North, 112° 3' 44" West	8350	Fire	Health Hazard		Utility Room		RP	1			
35114_03P	112-1H	North Rim	1547	Eight-Plex Housing Unit	B Cliffrose Court	36° 12' 48" North, 112° 3' 43" West	8350	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	375313	08/14/2024
35114_04F	112-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	B Cliffrose Court	36° 12' 48" North, 112° 3' 43" West	8350	Fire	Health Hazard		Utility Room		RP	1			
35114_05P	113-1H	North Rim	1547	Eight-Plex Housing Unit	C Cliffrose Court	36° 12' 49" North, 112° 3' 44" West	8350	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	380854	08/14/2024
35114_06F	113-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	C Cliffrose Court	36° 12' 49" North, 112° 3' 44" West	8350	Fire	Health Hazard		Utility Room		RP	1			
35114_07P	114-1H	North Rim	1547	Eight-Plex Housing Unit	D Cliffrose Court	36° 12' 49" North, 112° 3' 45" West	8350	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	419015	08/14/2024
33156_02F	7-2B FIRE	South Rim	0044	Community Building	Village Loop			Fire	Non-Health Hazard		Community Bldg. Grand Canyon Conservatory, Boiler Room		RP	4			
35073_03F	23-3B FIRE	South Rim	1516	La Petite	1 North Mohave			Fire	Non-Health Hazard		(KLC) Kaibab Learning Center		RP				
83870_02F	24-2B FIRE	South Rim	0546	Visitor Contact Verkamps				Fire	Health Hazard		Verkamps Visitor Center, Grand Canyon Conservatory Room		RP				
35108_02F	26-2B FIRE	South Rim	1543	Engine Bay	Shuttle Bus Road			Fire	Health Hazard		Wildland Fire Heliack Base Complex - Shop, Upstairs	Wilkins	RP	2.5	375	L06848	Unknown
35156_01P	3-1H	South Rim	1601	Single Family Res	1601 Barry Hance Cir	36° 2' 60" North, / 112° 7' 27" West	6970	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	457757	6/2/2025
35110_02F	27-2B FIRE	South Rim	1544	Helicopter Hangar	Shuttle Bus Road			Fire	Health Hazard		Wildland Fire Heliack Base Complex - Helicopter Bay, Upstairs	Wilkins	RP	2.5	375	LL11685	Unknown
35157_01P	4-1H	South Rim	1602	Single Family Res	1602 Barry Hance Cir	36° 2' 59" North, / 112° 7' 28" West	6970	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009	391331	10/25/2023
34119_02F	28-2B FIRE	South Rim	0273	Wildland Fire Office	YAKK Camp			Fire	Health Hazard		Wildland Fire Heliack Base Complex - Fire Management Office, Boiler Room	Watts	RP	3	909	1575801	Unknown
35158_01P	5-1H	South Rim	1603	Single Family Res	1603 Barry Hance Cir	36° 2' 58" North, / 112° 7' 26" West	6970	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462719	6/2/2025
34980_01F	32B	Havasupai Gardens	1462	Laundry/First Aid/SAR Cache	Havasupai Gardens	36° 4' 32" North, 112° 7' 47" West	3870	Fire	Health Hazard		TCWL - HG PSAR Clinic Laundry	Watts	RP	1.5	LF009 M2	126535	Unknown
35159_01P	6-1H	South Rim	1604	Single Family Res	1604 Barry Hance Cir	36° 2' 58" North, / 112° 7' 28" West	6950	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461103	6/2/2025

84298_02F	1-2H FIRE	South Rim	0844	Garage	Boulder Alley	36° 3' 13" North, 112° 8' 18" West	6910	Fire	Health Hazard		Apache 1		RP	1			
35160_01P	7-1H	South Rim	1605	Single Family Res	1605 Barry Hance Cir	36° 2' 57" North, / 112° 7' 26" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461088	6/2/2025
34617_02F	2-2H FIRE	South Rim	0809	Single Family Res	4 Apache St	36° 3' 15" North, 112° 8' 19" West	6900	Fire	Health Hazard		Apache 4		RP	1			
35161_01P	8-1H	South Rim	1606	Single Family Res	1606 Barry Hance Cir	36° 2' 57" North, / 112° 7' 28" West	6960	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461097	6/2/2025
35156_02F	3-2H FIRE	South Rim	1601	Single Family Res	1601 Barry Hance Cir	36° 2' 59" North, / 112° 7' 26" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35162_01P	9-1H	South Rim	1607	Single Family Res	1607 Barry Hance Cir	36° 2' 56" North, / 112° 7' 25" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009	391313	10/25/2023
35157_02F	4-2H FIRE	South Rim	1602	Single Family Res	1602 Barry Hance Cir	36° 2' 59" North, / 112° 7' 28" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35163_01P	10-1H	South Rim	1608	Single Family Res	1608 Barry Hance Cir	36° 2' 56" North, / 112° 7' 28" West	6980	P/D	Non-Health Hazard		Barry Hance	Wilkins	RP	1.5	975 XL2	W481736	Unknown
35158_02F	5-2H FIRE	South Rim	1603	Single Family Res	1603 Barry Hance Cir	36° 2' 58" North, / 112° 7' 26" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35159_02F	6-2H FIRE	South Rim	1604	Single Family Res	1604 Barry Hance Cir	36° 2' 58" North, / 112° 7' 28" West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35160_02F	7-2H FIRE	South Rim	1605	Single Family Res	1605 Barry Hance Cir	36° 2' 57" North, / 112° 7' 26" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35165_01P	12-1H	South Rim	1610	Single Family Res	1610 Barry Hance Cir	36° 2' 55" North, / 112° 7' 27" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461132	6/2/2025
35161_02F	8-2H FIRE	South Rim	1606	Single Family Res	1606 Barry Hance Cir	36° 2' 57" North, / 112° 7' 28" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35166_01P	13-1H	South Rim	1611	Single Family Res	1611 Barry Hance Cir	36° 2' 54" North, / 112° 7' 25" West	6960	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462839	6/2/2025
35162_02F	9-2H FIRE	South Rim	1607	Single Family Res	1607 Barry Hance Cir	36° 2' 56" North, / 112° 7' 25" West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35167_01P	14-1H	South Rim	1612	Single Family Res	1612 Barry Hance Cir	36° 2' 54" North, / 112° 7' 27" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009	391314	10/25/2023
35163_02F	10-2H FIRE	South Rim	1608	Single Family Res	1608 Barry Hance Cir	36° 2' 56" North, / 112° 7' 28" West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35168_01P	15-1H	South Rim	1613	Single Family Res	1613 Barry Hance Cir	36° 2' 53" North, / 112° 7' 26" West	6970	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462732	6/2/2025
35164_02F	11-2H FIRE	South Rim	1609	Single Family Res	1609 Barry Hance Cir	36° 2' 55" North, / 112° 7' 25" West	6960	Fire	Health Hazard		Barry Hance		RP	1			
35165_02F	12-2H FIRE	South Rim	1610	Single Family Res	1610 Barry Hance Cir	36° 2' 55" North, / 112° 7' 27" West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35166_02F	13-2H FIRE	South Rim	1611	Single Family Res	1611 Barry Hance Cir	36° 2' 54" North, / 112° 7' 25" West	6970	Fire	Health Hazard		Barry Hance		RP	1			
35170_01P	17-1H	South Rim	1615	Single Family Res	1615 Barry Hance Cir	36° 2' 53" North, / 112° 7' 27" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461089	6/2/2025
35167_02F	14-2H FIRE	South Rim	1612	Single Family Res	1612 Barry Hance Cir	36° 2' 54" North, / 112° 7' 27" West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35171_01P	18-1H	South Rim	1616	Single Family Res	1616 Barry Hance Cir	36° 2' 54" North, / 112° 7' 30' West	6990	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	391663	10/25/2023

35168_02F	15-2H FIRE	South Rim	1613	Single Family Res	1613 Barry Hance Cir	36° 2' 53" North, / 112° 7' 25" West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35172_01P	19-1H	South Rim	1617	Single Family Res	1617 Barry Hance Cir	36° 2' 53" North, / 112° 7' 31' West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462726	6/2/2025
35169_02F	16-2H FIRE	South Rim	1614	Single Family Res	1614 Barry Hance Cir	36° 2' 54" North, / 112° 7' 29" West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35173_01P	20-1H	South Rim	1618	Single Family Res	1618 Barry Hance Cir	36° 2' 55" North, / 112° 7' 31' West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	461102	6/3/2025
35170_02F	17-2H FIRE	South Rim	1615	Single Family Res	1615 Barry Hance Cir	36° 2' 53" North, / 112° 7' 27" West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35174_01P	21-1H	South Rim	1619	Single Family Res	1619 Barry Hance Cir	36° 2' 54" North, / 112° 7' 32' West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	386106	10/25/2023
35171_02F	18-2H FIRE	South Rim	1616	Single Family Res	1616 Barry Hance Cir	36° 2' 54" North, / 112° 7' 30' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35175_01P	22-1H	South Rim	1620	Single Family Res	1620 Barry Hance Cir	36° 2' 56" North, / 112° 7' 33' West	6990	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462814	6/3/2025
35172_02F	19-2H FIRE	South Rim	1617	Single Family Res	1617 Barry Hance Cir	36° 2' 53" North, / 112° 7' 31' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
35176_01P	23-1H	South Rim	1621	Single Family Res	1621 Barry Hance Cir	36° 2' 55" North, / 112° 7' 32' West	6990	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	460565	6/3/2025
35173_02F	20-2H FIRE	South Rim	1618	Single Family Res	1618 Barry Hance Cir	36° 2' 55" North, / 112° 7' 31' West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35237_01P	24-1H	South Rim	1622	Single Family Res	1622 Barry Hance Cir	36° 2' 58" North, / 112° 7' 30' West	6990	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	391335	10/25/2023
35174_02F	21-2H FIRE	South Rim	1619	Single Family Res	1619 Barry Hance Cir	36° 2' 54" North, / 112° 7' 32' West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35238_01P	25-1H	South Rim	1623	Single Family Res	1623 Barry Hance Cir	36° 2' 57" North, / 112° 7' 32' West	6990	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	391665	10/25/2023
35175_02F	22-2H FIRE	South Rim	1620	Single Family Res	1620 Barry Hance Cir	36° 2' 56" North, / 112° 7' 30' West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35240_01P	26-1H	South Rim	1624	Single Family Res	1624 Barry Hance Cir	36° 2' 59" North, / 112° 7' 30' West	6960	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462811	6/3/2025
35176_02F	23-2H FIRE	South Rim	1621	Single Family Res	1621 Barry Hance Cir	36° 2' 55" North, / 112° 7' 32' West	6980	Fire	Health Hazard		Barry Hance		RP	1			
35241_01P	27-1H	South Rim	1626	Single Family Residence	1626 Barry Hance Cir	36° 2' 60" North, / 112° 7' 31' West	6960	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	457733	6/3/2025
35237_02F	24-2H FIRE	South Rim	1622	Single Family Res	1622 Barry Hance Cir	36° 2' 58" North, / 112° 7' 30' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
34736_01P	28-1H	South Rim	1225	Single Family Res	1225 Bob Mahn St	36° 2' 45" North, / 112° 7' 32' West	6970	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	457724	6/3/2025
35238_02F	25-2H FIRE	South Rim	1623	Single Family Res	1623 Barry Hance Cir	36° 2' 57" North, / 112° 7' 32' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
68641_01P	29H	South Rim	1227	Single Family Res	1227 Bob Mahn St			P/D	Non-Health Hazard		Bob Mahn						
68637_01P	30-1H	South Rim	1228	Single Family Res	1228 Bob Mahn St	36° 2' 45" North, / 112° 7' 30' West	6980	P/D	Non-Health Hazard		Bob M+B456:B463ahn	Watts	RP	1.5	LF 009 QT	460563	6/3/2025
35240_02F	26-2 H FIRE	South Rim	1624	Single Family Res	1624 Barry Hance Cir	36° 2' 59" North, / 112° 7' 30' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
34741_01P	31-1H	South Rim	1299	Duplex	95 A/B Havasupai	36° 2' 47" North, / 112° 7' 32' West	6960	P/D	Non-Health Hazard		Bob Mahn 1229	Watts	RP	1.5	LF 009 QT	391291	10/25/2023
35241_02F	27-2H FIRE	South Rim	1626	Single Family Residence	1626 Barry Hance Cir	36° 2' 60" North, / 112° 7' 31' West	6990	Fire	Health Hazard		Barry Hance		RP	1			
34743_01P	32-1H	South Rim	1231	Single Family Res	1231 Bob Mahn St	36° 2' 48" North, / 112° 7' 32' West	6990	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	461095	6/3/2025
34736_02F	28-2H FIRE	South Rim	1225	Single Family Res	1225 Bob Mahn St	36° 2' 45" North, / 112° 7' 32' West	6970	Fire	Health Hazard		Bob Mahn		RP	1			
34747_01P	33-1H	South Rim	1232	Single Family Res	1232 Bob Mahn St	36° 2' 47" North, / 112° 7' 30' West	6970	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	462721	6/3/2025
68637_02F	30-2H FIRE	South Rim	1228	Single Family Res	1228 Bob Mahn St	36° 2' 45" North, / 112° 7' 30' West	6980	Fire	Health Hazard		Bob Mahn		RP	1			
34748_01P	34-1H	South Rim	1233	Single Family Res	1233 Bob Mahn St	36° 2' 49" North, / 112° 7' 31' West	6960	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	391661	10/26/2023
34741_02F	31-2H FIRE	South Rim	1299	Duplex	95 A/B Havasupai	36° 2' 47" North, / 112° 7' 32' West	6960	Fire	Health Hazard		Bob Mahn 1229		RP	1			
34749_01P	35-1H	South Rim	1234	Single Family Res	1234 Bob Mahn St	36° 2' 48" North, / 112° 7' 29' West	6980	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	391293	10/26/2023

34743_02F	32-2H FIRE	South Rim	1231	Single Family Res	1231 Bob Mahn St	36° 2' 48" North, / 112° 7' 31' West	6970	Fire	Health Hazard		Bob Mahn		RP	1			
34751_01P	36H	South Rim	1235	Single Family Res	1235 Bob Mahn St			P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	9	32835	
34747_02F	33-2H FIRE	South Rim	1232	Single Family Res	1232 Bob Mahn St	36° 2' 48" North, / 112° 7' 30' West	6970	Fire	Health Hazard		Bob Mahn		RP	1			
34748_02F	34-2H FIRE	South Rim	1233	Single Family Res	1233 Bob Mahn St	36° 2' 49" North, / 112° 7' 31' West	6960	Fire	Health Hazard		Bob Mahn		RP	1			
34756_01P	38-1H	South Rim	1237	Single Family Res	1237 Bob Mahn St	36° 2' 51" North, / 112° 7' 30' West	6980	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	460567	6/3/2025
34749_02F	35-2H FIRE	South Rim	1234	Single Family Res	1234 Bob Mahn St	36° 2' 48" North, / 112° 7' 29' West	6980	Fire	Health Hazard		Bob Mahn		RP	1			
34755_01P	37-1H	South Rim	1236	Single Family Res	1236 Bob Mahn St	36° 2' 50" North, / 112° 7' 29' West	6980	P/D	Non-Health Hazard		Bob Mahn	Watts	RP	1.5	LF 009 QT	461093	6/3/2025
87766_01P	40-1H	Desert View	1701	Eight-Plex Housing Unit	Desert View	36° 2' 11" North, / 111° 49' 30" West	7480	P/D	Non-Health Hazard		DV Cedar Mountain (Main)	Wilkins	RP	2	975 XL2	AC09066	11/2/2023
34755_02F	37-2H FIRE	South Rim	1236	Single Family Res	1236 Bob Mahn St	36° 2' 50" North, / 112° 7' 29' West	6970	Fire	Health Hazard		Bob Mahn		RP	1			
34689_01P	41-1H	South Rim	1140	Single Family Residence	50 Juniper Hill	36° 3' 13" North, / 112° 8' 6" West	6950	P/D	Non-Health Hazard		Juniper 50	Watts	RP	1.5	LF 009 QT	460560	6/4/2025
34756_02F	38-2H FIRE	South Rim	1237	Single Family Res	1237 Bob Mahn St	36° 2' 48" North, / 112° 7' 29' West	6980	Fire	Health Hazard		Bob Mahn		RP	1			
33034_01P	42-1H	South Rim	0012	Single Family Res	12 Kaibab St	36° 3' 15" North, / 112° 8' 5" West	6950	P/D	Non-Health Hazard		Kaibab 12	Watts	RP	1.5	LF 009 QT	70932	Unknown
34689_02F	41-2H FIRE	South Rim	1140	Single Family Residence	50 Juniper Hill	36° 3' 13" North, / 112° 8' 6" West	6950	Fire	Health Hazard		Juniper 50		RP	1			
33037_01P	43-1H	South Rim	0013	Single Family Res	13 Kaibab St	36° 3' 15" North, / 112° 8' 5" West	6950	P/D	Non-Health Hazard		Kaibab 13	Watts	RP	1.5	LF 009 QT	386107	10/26/2023
33037_02F	43-2H FIRE	South Rim	0013	Single Family Res	13 Kaibab St	36° 2' 48" North, / 112° 7' 29' West	6980	Fire	Health Hazard		Kaibab 13		RP	1			
36048_01P	44H	South Rim	0017	Single Family Res	17 Kaibab St			P/D	Non-Health Hazard		Kaibab 17		RP	1.5			
33128_01P	45-1H	South Rim	0019A	Garage & Shed	Kaibab St	36° 3' 15" North, / 112° 8' 2" West	6950	P/D	Non-Health Hazard		Kaibab 19	Watts	RP	1.5	LF 009 QT	462832	6/4/2025
33128_02F	45-2H FIRE	South Rim	0019A	Garage & Shed	Kaibab St	36° 3' 15" North, / 112° 8' 2" West	6950	Fire	Health Hazard		Kaibab 19		RP	1			
33130_01P	46-1H	South Rim	0021	Single Family Res	21 Kaibab St	36° 3' 16" North, / 112° 8' 0" West	6960	P/D	Non-Health Hazard		Kaibab 21	Wilkins	RP	1.5	975 XL2	W420409	Unknown
33130_02F	46-2H FIRE	South Rim	0021	Single Family Res	21 Kaibab St	36° 3' 16" North, / 112° 8' 0" West	6960	Fire	Health Hazard		Kaibab 21		RP	1			
34691_02F	51-2H FIRE	South Rim	1202	Single Family Res	1202 Randy Thompson Cir	36° 2' 46" North, / 112° 7' 30" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34692_02F	52-2H FIRE	South Rim	1203	Single Family Res	1203 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 36" West	6950	Fire	Health Hazard		Randy Thompson		RP	1			
34693_02F	53-2H FIRE	South Rim	1204	Single Family Res	1204 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 34" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34694_02F	54-2H FIRE	South Rim	1205	Single Family Res	1205 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 36" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34695_02F	55-2H FIRE	South Rim	1206	Single Family Res	1206 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 34" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34696_02F	56-2H FIRE	South Rim	1207	Single Family Res	1207 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 36" West	6950	Fire	Health Hazard		Randy Thompson		RP	1			
34698_02F	57-2H FIRE	South Rim	1208	Single Family Res	1208 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 34" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34699_02F	58-2H FIRE	South Rim	1209	Single Family Res	1209 Randy Thompson Cir	36° 2' 51" North, / 112° 7' 35" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
33681_02P	49-1H	South Rim	0111	Trail Crew Bunkhouse	NR Administration Area	36° 3' 19" North, / 112° 8' 5" West	6930	P/D	Non-Health Hazard		NPS Laundry Bldg.	Wilkins	RP	1	975 XL2	ABA48560	6/6/2025
34690_01P	50H	South Rim	1201	Single Family Res	1201 Randy Thompson Cir			P/D	Non-Health Hazard		Randy Thompson						

34691_01P	51-1H	South Rim	1202	Single Family Res	1202 Randy Thompson Cir	36° 2' 46" North, / 112° 7' 30" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009	391322	10/26/2023
34702_02F	59-2H FIRE	South Rim	1210	1210 Randy Thompson Cir	1210 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 33" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34692_01P	52-1H	South Rim	1203	1203 Randy Thompson Cir	1203 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 36" West	6950	P/D	Non-Health Hazard		Randy Thompson	Wilkins	RP	1.5	LF 009 QT	462812	6/5/2025
34704_02F	60-2H FIRE	South Rim	1211	1211 Randy Thompson Cir	1211 Randy Thompson Cir	36° 2' 52" North, / 112° 7' 34" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34693_01P	53-1H	South Rim	1204	1204 Randy Thompson Cir	1204 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 34" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461107	6/4/2025
34706_02F	61-2H FIRE	South Rim	1212	1212 Randy Thompson Cir	1212 Randy Thompson Cir	36° 2' 51" North, / 112° 7' 32" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34694_01P	54-1H	South Rim	1205	1205 Randy Thompson Cir	1205 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 34" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462716	6/5/2025
34708_02F	62-2H FIRE	South Rim	1213	1213 Randy Thompson Cir	1213 Randy Thompson Cir	36° 2' 53" North, / 112° 7' 33" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34695_01P	55-1H	South Rim	1206	1206 Randy Thompson Cir	1206 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 34" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461120	6/5/2025
34712_02F	63-2H FIRE	South Rim	1214	1214 Randy Thompson Cir	1214 Randy Thompson Cir	36° 2' 52" North, / 112° 7' 33" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34696_01P	56-1H	South Rim	1207	1207 Randy Thompson Cir	1207 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 36" West	6950	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009	391662	10/26/2023
34714_02F	64-2H FIRE	South Rim	1215	1215 Randy Thompson Cir	1215 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 26" West	6980	Fire	Health Hazard		Randy Thompson		RP	1			
34698_01P	57-1H	South Rim	1208	1208 Randy Thompson Cir	1208 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 34" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462729	6/5/2025
34718_02F	65-2H FIRE	South Rim	1216	1216 Randy Thompson Cir	1216 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 26" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34720_02F	66-2H FIRE	South Rim	1217	1217 Randy Thompson Cir	1217 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 24" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34721_02F	67-2H FIRE	South Rim	1218	1218 Randy Thompson Cir	1218 Randy Thompson Cir	36° 2' 53" North, / 112° 7' 33" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34702_01P	59-1H	South Rim	1210	1210 Randy Thompson Cir	1210 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 33" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009	393346	10/26/2023
34722_02F	68-2H FIRE	South Rim	1219	1219 Randy Thompson Cir	1219 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 25" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34723_02F	69-2H FIRE	South Rim	1220	1220 Randy Thompson Cir	1220 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 27" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34725_02F	70-2H FIRE	South Rim	1221	1221 Randy Thompson Cir	1221 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 24" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34706_01P	61-1H	South Rim	1212	1212 Randy Thompson Cir	1212 Randy Thompson Cir	36° 2' 51" North, / 112° 7' 32" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461092	6/5/2025
34728_02F	71-2H FIRE	South Rim	1222	1222 Randy Thompson Cir	1222 Randy Thompson Cir	36° 2' 47" North, / 112° 7' 27" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34708_01P	62-1H	South Rim	1213	1213 Randy Thompson Cir	1213 Randy Thompson Cir	36° 2' 53" North, / 112° 7' 33" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462714	6/5/2025

34730_02F	72-2H FIRE	South Rim	1223	1223 Randy Thompson Cir	1223 Randy Thompson Cir	36° 2' 47" North, / 112° 7' 27" West	6970	Fire	Health Hazard		Randy Thompson		RP	1			
34712_01P	63-1H	South Rim	1214	1214 Randy Thompson Cir	1214 Randy Thompson Cir	36° 2' 52" North, / 112° 7' 33" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462722	6/5/2025
34731_02F	73-2H FIRE	South Rim	1224	1224 Randy Thompson Cir	1224 Randy Thompson Cir	36° 2' 46" North, / 112° 7' 28" West	6960	Fire	Health Hazard		Randy Thompson		RP	1			
34714_01P	64-1H	South Rim	1215	1215 Randy Thompson Cir	1215 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 26" West	6980	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	975 XL2	W405408	Unknown
33132_02F	74-2H FIRE	South Rim	0023	23 Tapeats Circle	23 Tapeats Circle	36° 3' 17" North, / 112° 7' 58" West	6960	Fire	Health Hazard		Tapeats 23		RP	1			
34718_01P	65-1H	South Rim	1216	1216 Randy Thompson Cir	1216 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 26" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009	393343	10/27/2023
33136_02F	75-2H FIRE	South Rim	0025	25 Tapeats Circle	25 Tapeats Circle	36° 3' 15" North, / 112° 7' 58" West	6950	Fire	Health Hazard		Tapeats 25		RP	1			
33138_02F	76-2H FIRE	South Rim	0027	Single Family Res	27 Tapeats Circle	36° 3' 16" North, / 112° 7' 56" West	6950	Fire	Health Hazard		Tapeats 27		RP	1			
36338_02F	78-2H FIRE	South Rim	0006B	Duplex	7 A Tonto St	36° 3' 17" North, / 112° 8' 9" West	6920	Fire	Health Hazard		Tonto 7A		RP	1.5			
34721_01P	67-1H	South Rim	1218	Single Family Res	1218 Randy Thompson Cir	36° 2' 53" North, / 112° 7' 33" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462715	6/5/2025
33003_02F	78-4H FIRE	South Rim	0006C	Garage & Shed	Tonto St	36° 3' 17" North, / 112° 8' 10" West	6920	Fire	Health Hazard		Tonto 7B		RP	1.5			
34722_01P	68-1H	South Rim	1219	Single Family Res	1219 Randy Thompson Cir	36° 2' 49" North, / 112° 7' 25" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	462720	6/10/2025
32967_02F	80-2H FIRE	South Rim	0004A	Garage & Shed	Tonto St	36° 3' 18" North, / 112° 3' 18" West	6930	Fire	Health Hazard		Tonto 10		RP	1			
34723_01P	69-1H	South Rim	1220	Single Family Res	1220 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 27" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461108	6/5/2025
32968_02F	81-2H FIRE	South Rim	0005	12 Tonto St	12 Tonto St	36° 3' 16" North, / 112° 7' 56" West	6950	Fire	Health Hazard		Tonto 12		RP	1			
34725_01P	70-1H	South Rim	1221	1221 Randy Thompson Cir	1221 Randy Thompson Cir	36° 2' 48" North, / 112° 7' 24" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461105	6/5/2025
87774_01N	91-1H	South Rim	1580	101-108 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 6" West	6950		Non-Health Hazard		Paiute Bldg 100	Febco	RP	2			
34728_01P	71-1H	South Rim	1222	1222 Randy Thompson Cir	1222 Randy Thompson Cir	36° 2' 47" North, / 112° 7' 27" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461106	6/6/2025
87775_01N	92-1H	South Rim	1581	201-208Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 4" West	6950		Non-Health Hazard		Paiute Bldg 200	Febco	RP	2			
34730_01P	72-1H	South Rim	1223	1223 Randy Thompson Cir	1223 Randy Thompson Cir			P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	391664	10/27/2023
87776_01N	93-1H	South Rim	1582	301-308 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 3" West	6960		Non-Health Hazard		Paiute Bldg 300	Febco	RP	2			
34731_01P	73-1H	South Rim	1224	1224 Randy Thompson Cir	1224 Randy Thompson Cir	36° 2' 46" North, / 112° 7' 28" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	460568	6/6/2025
87777_01N	94-1H	South Rim	1583	401-408 Paiute St (Eight Plex), South Rim		36° 2' 55" North, / 112° 8' 1" West	6960		Non-Health Hazard		Paiute Bldg 400	Febco	RP	2			
87778_01N	95-1H	South Rim	1584	501-508 Paiute St (Eight Plex), South Rim		36° 2' 55" North, / 112° 8' 1" West	6960		Non-Health Hazard		Paiute Bldg 500	Febco	RP	2			Unknown
87780_01N	96-1H	South Rim	1585	601-608 Paiute St (Eight Plex), South Rim		36° 2' 54" North, / 112° 8' 1" West	6960		Non-Health Hazard		Paiute Bldg 600	Febco	RP	2			

33136_01P	75-1H	South Rim	0025	25 Tapeats Circle	25 Tapeats Circle	36° 3' 15" North, / 112° 7' 58" West	6950	P/D	Non-Health Hazard		Tapeats 25	Wilkins	RP	1.5	975 XL2	W407462	2015
235188_01N	97-1H	South Rim	1586	701-708 Paiute St (Eight Plex), South Rim		36° 2' 56" North, / 112° 8' 4" West	6950		Non-Health Hazard		Paiute Bldg 700	Febco	RP	2			
235189_01N	98-1H	South Rim	1587	801-808 Paiute St (Eight Plex), South Rim		36° 2' 55" North, / 112° 8' 8" West	6940		Non-Health Hazard		Paiute Bldg 800	Febco	RP	2			
36050_01F	99H FIRE	Phantom Ranch	0091	River Ranger Station	Phantom Ranch	36° 5' 57" North, / 112° 5' 38" West	6980	Fire	Health Hazard		TCWL - PR	Watts	RP	1.5	U009 M2	05225	Unknown
35114_08F	114-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	D Cliffrose Court	36° 12' 49" North, 112° 3' 45" West	8350	Fire	Health Hazard		Utility Room		RP	1			
35114_09P	115-1H	North Rim	1547	Eight-Plex Housing Unit	E Cliffrose Court	36° 12' 49" North, 112° 3' 43" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	384956	08/14/2024
35114_10F	115-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	E Cliffrose Court	36° 12' 49" North, 112° 3' 43" West	8340	Fire	Health Hazard		Utility Room		RP	1			
35114_11P	116-1H	North Rim	1547	Eight-Plex Housing Unit	F Cliffrose Court	36° 12' 49" North, 112° 3' 43" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	380839	08/14/2024
35114_12F	116-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	F Cliffrose Court	36° 12' 49" North, 112° 3' 43" West	8340	Fire	Health Hazard		Utility Room		RP	1			
35114_13P	117-1H	North Rim	1547	Eight-Plex Housing Unit	G Cliffrose Court	36° 12' 49" North, 112° 3' 45" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	380836	08/14/2024
35114_14F	117-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	G Cliffrose Court	36° 12' 49" North, 112° 3' 45" West	8340	Fire	Health Hazard		Utility Room		RP	1			
33007_01P	79-1H	South Rim	0007A	Garage & Shed	Tonto St	36° 3' 16" North, / 112° 7' 56" West	6950	P/D	Non-Health Hazard		Tonto 9A	Watts	RP	1.5	LF 009	391660	10/27/2023
35114_15P	118-1H	North Rim	1547	Eight-Plex Housing Unit	H Cliffrose Court	36° 12' 48" North, 112° 3' 44" West	8340	P/D	Non-Health Hazard		Boiler System / Utility Room	Watts	RP	1.5	LF009-QT-FS	375310	08/14/2024
35114_16F	118-2H FIRE	North Rim	1547	Eight-Plex Housing Unit	H Cliffrose Court	36° 12' 48" North, 112° 3' 44" West	8340	Fire	Health Hazard		Boiler System / Utility Room		RP	1			
32968_01P	81-1H	South Rim	0005	Single Family Res	12 Tonto St	36° 3' 16" North, / 112° 7' 56" West	6950	P/D	Non-Health Hazard		Tonto 12	Watts	RP	1.5	LF 009 QT	462818	6/9/2025
255316_01F	83H FIRE	South Rim				36° 3' 13" North, / 112° 8' 27" West	6890	Fire	Health Hazard		Apache 21	Watts	RP	1	LF 009 M2 QT	358446	6/10/2025
83989_02P	35B	North Rim	1525		EDR Area	36° 12' 26" North, 112° 3' 27" West	8320	P/D	Non-Health Hazard		(EDR), Fir Road and Wrangler Road (Down hill to the west, on the northside of the road, near the cardboard packer)	Febco	DC	8	850	F0212301252	De-scoped from the CY-2025 Testing due to the Dragon Bravo Fire
87759_01P	34-1B	North Rim	1153	Emergency Management Services (EMS), Station 3	6219 AZ Highway 67	36° 12' 55" North, 112° 3' 32" West	8370	P/D	Non-Health Hazard		Boiler System / Utility Room, North side of building.	Watts	RP	1	009 M2 QT	A02582	De-scoped from the CY-2025 Testing due to the Dragon Bravo Fire
87759_02P	34-2B	North Rim	1153	Emergency Management Services (EMS), Station 3	6219 AZ Highway 67	36° 12' 55" North, 112° 3' 30" West	8420	P/D	Non-Health Hazard			Watts	RP	2.5	009	23204	De-scoped from the CY-2025 Testing due to the Dragon Bravo Fire
87759_03F	34-3B FIRE	North Rim	1153	Emergency Management Services (EMS), Station 3	6219 AZ Highway 67	36° 12' 55" North, 112° 3' 30" West	8420	Fire	Non-Health Hazard				RP				De-scoped from the CY-2025 Testing due to the Dragon Bravo Fire
34567_01P	2WU	Havasupai Gardens	0484	Pumphouse South	Havasupai Gardens	36° 3' 26" North, 112° 7' 36" West	3810	P/D	Non-Health Hazard		TCWL - HG Havasupai Gardens - Pumphouse-South	Watts	RP	1	LF 009 M2	304235	10/30/2023
108280_01P	1B	South Rim	1705	Comfort Station A, Bright Angel Trailhead		36° 3' 26" North, 112° 8' 36" West	6860	P/D	Non-Health Hazard		Bright Angel Trailhead Water Bottle Fill Station	Febco	DC	1	850	HC90317	Unknown
108280_02P	2B	South Rim	1705	Comfort Station A, Bright Angel Trailhead		36° 3' 26" North, 112° 8' 35" West	6870	P/D	Non-Health Hazard		Bright Angel Trailhead Irrigation System	Febco	DC	1	850	HC90320	Unknown
84001_02F	6B Fire	South Rim	1266	Camper Services Bldg	Mather Campground	36° 3' 2" North, 112° 7' 16" West	6970	Fire	Health Hazard		Kiosk	Wilkins	DC	1	950XL	1746410	Unknown
81635_06F	10-6B Fire	South Rim	1577	NPS Vehicle Maintenance Building	New NPS Maintenance Area			Fire	Non-Health Hazard		FMD Auto Shop Bldg	Ames	DC	4	2000 SSF	200310 0901	Unknown

81633_06F	11-6B Fire	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 45" West	6890	Fire	Non-Health Hazard		FMD Custodial Room #112 - Bldg	Ames	DC	4	2000 SSF	128958-0802	Unknown
81636_03F	12-3B FIRE	South Rim	1578	NPS Enclosed Vehicle Storage	New NPS Maintenance Area			Fire	Non-Health Hazard		FMD Covered Storage Bldg	Ames	DC	4	2000 SSF	200155 1201	Unknown
35096_01F	18B	South Rim	1536	Engineering Office/Dutton/SRM	NPS Maint Area			Fire	Health Hazard		14 Fee Operations	Ames	DC	2.5	Colt 200	RL-1606	Unknown
34577_03F	21-2B FIRE	South Rim	0533	Kolb Studio	Village Loop			Fire	Non-Health Hazard		Grand Canyon Conservatory	Watts	DC	2.5	709	102904	Unknown
243934_01F	25-4B FIRE	South Rim	1709	Science and Resource Management Warehouse (Dutton)	17 South Entrance Road	36° 3' 22" North, 112° 7' 12" West	7010	Fire	Non-Health Hazard		SRM Storage - Mcgee	Ames	DC	4	Colt 200	MC1525	Unknown
33680_01F	29-1B FIRE	South Rim	0110	Yavapai Observation Station	Yavapai Point	36° 3' 58" North, 112° 7' 3" West	7090	Fire	Non-Health Hazard		Yavapai Musuem, Grand Canyon Conservatory	Wilkins	DC	4	350	V06577	Unknown
33680_02F	29-2B Bypass	South Rim	0110	Yavapai Observation Station	Yavapai Point	36° 3' 58" North, 112° 7' 3" West	7090	Fire	Non-Health Hazard		Yavapai Museum, Grand Canyon Conservatory	Wilkins	DC	0.75	950 XL	2223193 XLD	Unknown
34115_03F	37B FIRE	South Rim	0272	Maintenance Building	Albright Ave			Fire	Health Hazard		DC, Grand Canyon Conservatory Warehouse (McKee Warehouse Compound Area), Fire riser		RP				
84040_02F	47-1H FIRE	South Rim	1100	Yavapai Lodge West #6	Yavapai Lodge Area	36° 2' 57" North, / 112° 8' 14" West	6930	Fire	Health Hazard		Mohave	Watts	DC	1.5	007 M2	83313	Unknown
34618_01F	82H FIRE	South Rim	0810	Single Family Res	2 Apache St	36° 3' 16" North, / 112° 8' 18" West	6890	Fire	Health Hazard		Apache 2	Wilkins	DC	0.75	350XL	A503447	Unknown
34503_01F	100H FIRE	South Rim	0368	4 Unit Apartment (Hermits Circle)	368 ABCD Sunset Dr	36° 3' 8" North, / 112° 7' 55" West	6970	Fire	Health Hazard		Sunset 368	Watts	DC	1	007 M1QT	479666	Unknown
34552_01P	4-1B Main	South Rim	0444	Clinic	1 Clinic Road			P/D	Non-Health Hazard		Main Entry Outside	Watts	RP	4	957	XI-0270	11/1/2023
60971_01F	86H FIRE	Havasupai Gardens	0875	Trail Crew Bunkhouse	Havasupai Gardens	36° 4' 32" North, 112° 7' 46" West	3870	Fire	Health Hazard		TCWL - HG Havasupai Gardens	Watts	RP	1.5	U009 M2	5218	Unknown
33422_01F	87H FIRE	Havasupai Gardens	1460	Ranger Residence	Havasupai Gardens	36° 4' 33" North, 112° 7' 46" West	3860	Fire	Health Hazard		TCWL - HG Havasupai Gardens	Watts	RP	1.5	LF 009 M2QT	008206	Unknown
33422_02F	88H FIRE	Havasupai Gardens	1460	Utility Bunkhouse	Havasupai Gardens	36° 4' 33" North, 112° 7' 47" West	3880	Fire	Health Hazard		TCWL - HG Havasupai Gardens Utilities Operator House	Watts	RP	1.5	U009 M2	005321	Unknown
35153_01F	84-1H FIRE Bypass	Desert View	1707	Four-Plex Housing Unit	1494 Colter	36° 2' 10" North, / 111° 49' 33" West	7460	Fire	Health Hazard		DV Colter Lane 1494 (Bypass)	Ames	DC	0.75	Flowmatic DCVE	A2536	Unknown
35153_02F	84-2H FIRE Main	Desert View	1707	Four-Plex Housing Unit	1494 Colter	36° 2' 10" North, / 111° 49' 33" West	7460	Fire	Health Hazard		DV Colter Lane 1494 (Main)	Ames	DC	2.5	Colt 300	DC-0818	Unknown
108280_03P	3B	South Rim	1705	Comfort Station A, Bright Angel Trailhead				P/D	Non-Health Hazard		Bright Angel Trailhead Restrooms	Wilkins	RP	3	375	L79313	Unknown
34552_05P	4-5B Mech Room	South Rim	0444	Clinic	1 Clinic Road			P/D	Non-Health Hazard		Fire Station #1 Engine Bay - Mech Room	Watts	RP	2.5	009	19298	10/1/2023
33156_01P	7-1B	South Rim	0044	Community Building	Village Loop			P/D	Non-Health Hazard		Community Bldg. Grand Canyon Conservatory Boiler Room	Febco	RP	0.75	825Y	A137844	Unknown
35072_01P	15-1B	South Rim	1511	Museum Collection Building	NPS Maint Area			P/D	Non-Health Hazard		Museum Collection Boiler Room (Southeast Backside Bldg.)	Watts	RP	1	009 QT	64231	Unknown
35072_02P	15-2B	South Rim	1511	Museum Collection Building	NPS Maint Area			P/D	Non-Health Hazard		Musuem Collections Bathroom	Watts	RP	1.5	009M2QT	33035	Unknown
35072_03P	16B	South Rim	1511	Museum Collection Building	NPS Maint Area			P/D	Non-Health Hazard		Sanitation Truck Wash Rack	Watts	RP	0.75	909	515127	Unknown
34577_02P	21-1B	South Rim	0533	Kolb Studio	Village Loop			P/D	Non-Health Hazard		Grand Canyon Conservatory, Boiler Room	Febco	RP	0.75	825Y	A210251	Check on lead and copper level
83949_01P	22-2B	South Rim	2022	GCA Bookstore	Canyon View Information Plaza	36° 0' 30" North, 112° 6' 33" West	7100	P/D	Non-Health Hazard		GCVC Bookstore, Grand Canyon Conservatory	Febco	RP	1	825Y	A206788	Unknown
35243_02P	22-3B	South Rim	2000	Orientation Building	Canyon View Information Plaza	36° 3' 32" North, 112° 6' 33" West	7110	P/D	Non-Health Hazard		GCVC, Orientation Bldg., 25911	Watts	RP	0.75	909	509697	7/23/2023
84298_01P	1-1H	South Rim	0844	Garage	Boulder Alley	36° 3' 13" North, 112° 8' 18" West	6910	P/D	Non-Health Hazard		Apache 1	Watts	RP	1.5	009QT	443917	Unknown
35164_01P	11-1H	South Rim	1609	Single Family Res	1609 Barry Hance Cir	36° 2' 55" North, / 112° 7' 25" West	6960	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	009 QT	369142	Unknown
87766_02F	40-2H FIRE	Desert View	1701	Eight-Plex Housing Unit	Desert View	36° 2' 11" North, / 111° 49' 30" West	7480	Fire	Health Hazard		DV Cedar Mountain	Ames	RP	1.25	4000 B	1127	Unknown
84090_01P	47-2H	South Rim	1382	Six-Plex Townhouse	1101-1106 Mohave St	36° 2' 57" North, / 112° 8' 14" West	6930	P/D	Non-Health Hazard		Mohave 1101	Watts	RP	1.5	009 QT	229750	Unknown

84041_01P	47-3H	South Rim	1103	Ice Plant	Mather Campground	36° 2' 57" North, / 112° 8' 14" West	6930	P/D	Non-Health Hazard		Mohave	Watts	RP	1.5	009 QT	255806	Unknown
84042_26P	47-4H	South Rim	1104	Maswik Lodge South 1	Maswik Lodge Area	36° 2' 57" North, / 112° 8' 13" West	6930	P/D	Non-Health Hazard		Mohave	Watts	RP	1.5	009 QT	255785	Unknown
84059_01P	47-5H	South Rim	1105	Maswik Lodge South 2	Maswik Lodge Area	36° 2' 57" North, / 112° 8' 13" West	6940	P/D	Non-Health Hazard		Mohave	Watts	RP	1.5	009 QT	441775	Unknown
84062_01P	47-6H	South Rim	1108	Maswik Lodge South 5	Maswik Lodge Area	36° 2' 56" North, / 112° 8' 13" West	6920	P/D	Non-Health Hazard		Mohave	Watts	RP	1.5	009 QT	257826	Unknown
33022_01P	48-1H	South Rim	0009	Single Family Res	9 Navajo St	36° 3' 19" North, / 112° 8' 5" West	6930	P/D	Non-Health Hazard		Navajo 9	Watts	RP	1.5	009 QT	366231	Unknown
33022_02F	48-2H FIRE	South Rim	0009	Single Family Res	9 Navajo St	36° 3' 19" North, / 112° 8' 5" West	6930	Fire	Health Hazard		Navajo 9	Ames	DC	1	2000B	18933	Unknown
34720_01P	66-1H	South Rim	1217	Single Family Res	1217 Randy Thompson Cir	36° 2' 50" North, / 112° 7' 24" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	009 QT	438999	2013
33132_01P	74-1H	South Rim	0023	Single Family Res	23 Tapeats Circle	36° 3' 17" North, / 112° 7' 58" West	6960	P/D	Non-Health Hazard		Tapeats 23	Watts	RP	1.5	009 QT	331640	Unknown
33138_01P	76-1H	South Rim	0027	Single Family Res	27 Tapeats Circle	36° 3' 16" North, / 112° 7' 56" West	6950	P/D	Non-Health Hazard		Tapeats 27	Watts	RP	1.5	975	399730	Unknown
36340_01P	77-1H	South Rim	0024B	Duplex	1B Tonto St	36° 3' 16" North, / 112° 8' 12" West	6910	P/D	Non-Health Hazard		Tonto 1A	Watts	RP	1.5	009 QT	366554	Unknown
36340_02P	77-2H	South Rim	0024B	Duplex	1B Tonto St	36° 3' 16" North, / 112° 8' 12" West	6910	P/D	Non-Health Hazard		Tonto 1B	Watts	RP	1.5	009 QT	367659	Unknown
36338_01P	78-1H	South Rim	0006B	Duplex	7 A Tonto St	36° 3' 17" North, / 112° 8' 9" West	6920	P/D	Non-Health Hazard		Tonto 7A	Watts	RP	1.5	009 QT	371197	Unknown
33003_01P	78-3H	South Rim	0006C	Garage & Shed	Tonto St	36° 3' 17" North, / 112° 8' 10" West	6920	P/D	Non-Health Hazard		Tonto 7B	Watts	RP	1.5	009QT	71015	Unknown
32967_01P	80-1H	South Rim	0004A	Garage & Shed	Tonto St	36° 3' 18" North, / 112° 3' 18" West	6930	P/D	Non-Health Hazard		Tonto 10	Watts	RP	1.5	009 QT	443899	Unknown
99678_02P	3WU	South Rim				36° 3' 2" North, 112° 7' 55" West	6980	P/D	Non-Health Hazard		Lapp Loop Truck Fill	Wilkins	RP	3	375	L86229	Unknown
81633_01P	11-1B Glycol Tank	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 43" West	6840	P/D	Health Hazard		FMD Main Bldg. Mech. / Boiler Room #122A, Bldg. System (Glycol) Make-Up Water / Mixing - Dosing Tank, "Overhead"	Watts	RP	1.5	LF 009 QT	457741	05/19/2025
81633_02P	11-2B Chiller	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 59" North, 112° 7' 43" West	6840	P/D	Health Hazard		FMD Main Bldg. Mech. / Boiler Room #122A, Bldg. System (Glycol) Make-Up Water / Chiller Water System, "Top Assembly"	Watts	RP	1	LF009M2-QT-FS	299190	12/17/2024
81633_05N	11-5B	South Rim	1575	NPS Shops/Office Building	New NPS Maintenance Area	36° 1' 58" North, 112° 7' 43" West	6890		Non-Health Hazard		FMD Main Bldg. Housing Maintenance / Quarters Shop Room #102, Bldg., Appliance Testing Station.	Watts	RP	0.75	LF009M2-QT	105128	
81636_02P	12-2B	South Rim	1578	NPS Enclosed Vehicle Storage	New NPS Maintenance Area			P/D	Non-Health Hazard		FMD Covered Storage Bldg.	Watts	DC	1	007 M1	276028	
35243_01P	22-1B Pump Station	South Rim	2000	Orientation Building	Canyon View Information Plaza	36° 3' 32" North, 112° 6' 33" West	7110	P/D	Non-Health Hazard		GCVC, Potable & Pumping Station Bldg.	Watts	RP	2	LF 009 M2	283374	05/30/2025
33683_01P	31-1B	Desert View	0114	Tusayan Museum	Tusayan Ruins	36° 0' 50" North, 111° 51' 59" West	7200	P/D	Non-Health Hazard		SR / DV - and Ruins Site, Ranger Office Building, Boiler / Utility Room.	Watts	RP	1.5	LF009M2	142464	7/15/2024
34617_01P	2-1H	South Rim	0809	Single Family Res	4 Apache St	36° 3' 15" North, 112° 8' 19" West	6900	P/D	Non-Health Hazard		Apache 4	Wilkins	RP	1.5	975 XL2	W407466	8/3/2015
35169_01P	16-1H	South Rim	1614	Single Family Res	1614 Barry Hance Cir	36° 2' 54" North, / 112° 7' 29" West	6980	P/D	Non-Health Hazard		Barry Hance	Watts	RP	1.5	LF 009 QT	462725	6/2/2025
34699_01P	58-1H	South Rim	1209	Single Family Res	1209 Randy Thompson Cir	36° 2' 51" North, / 112° 7' 35" West	6960	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	LF 009 QT	461121	6/5/2025
34704_01P	60-1H	South Rim	1211	Single Family Res	1211 Randy Thompson Cir	36° 2' 52" North, / 112° 7' 34" West	6970	P/D	Non-Health Hazard		Randy Thompson	Watts	RP	1.5	009 QT	346501	Unknown

99678_01P	1WU	South Rim				36° 2' 3" North, 112° 7' 46" West	6900	P/D	Non-Health Hazard		FMD - Fire Hydrant - Water Truck Fill Location (North side of the FMD Compound)	Wilkins	RP	1.5	975 XL2	ACC 4695	Unknown
34574_01P	5WU	Phantom Ranch	0491	Wastewater Treatment Plant PR	Phantom Ranch	36° 12' 55" North, 112° 3' 32" West	8370	P/D	Non-Health Hazard		TCWL - PR WWTP - Tool Room	Watts	RP	1	LF 009 M2 QT	358439	6/12/2025
34560_01P	6WU	South Rim	0467	Control Building	WW Treatment Plant			P/D	Non-Health Hazard		WWTP - Pump Room	Watts	RP	1	LF 009 M2 QT	191549	Unknown
34056_01P	7WU	South Rim	0228	Reclaimed Water Pumphouse	WW Treatment Plant	36° 2' 59" North, 112° 9' 6" West	6800	P/D	Non-Health Hazard		WWTP - Bldg	Watts	RP	1	LF 009 M2 QT	357968	5/22/2025
99678_03P	8WU	South Rim				36° 2' 57" North, 112° 7' 58" West	6950	P/D	Non-Health Hazard		Water Truck Fill Station	Wilkins	RP	3	375ASTR	56359C	5/22/2025
34577_01P	21 Place Saver	South Rim	0533	Kolb Studio	Village Loop			P/D	Non-Health Hazard		Grand Canyon Conservatory FMSS#						

Master Backflow Inventory

Unique ID	Inventory File #	Area	Building #	Building Name	Address	GPS	Elevation (feet)	Connection Type	Hazard Type	Use Codes	Room	Mfg.	Type	Size (inches)	Model#	Serial #	Install Date	2026 Test Date	2026 Test Results	2026 Tester Name & ID	2026 Corrective Action Required	Compliant	Cost of Corrective Action	Comments
34124_01P	1	HOAL	0277	Albright Building A	Albright Ave			P/D	Non-Health Hazard		Albright A-Boiler Room (Main Water Supply Line)	Wilkins	RP	2	975 XL	W163153	Unknown								
34124_02P	2	HOAL	0277	Albright Building A	Albright Ave			P/D	Non-Health Hazard		Albright A-Boiler Room (Boiler Water Supply Line)	Wilkins	RP	1	975 XL	2051889	Unknown								
34124_03F	3	HOAL	0277	Albright Building A	Albright Ave			Fire	Non-Health Hazard		Albright A-Boiler Room	Watts	DC	1.5	QT 007 M2	A04516	Unknown								
34126_01P	4	HOAL	0278	Albright Building B	Albright Ave			P/D	Non-Health Hazard		Albright B- Boiler Room (Main Water Supply Line)	Wilkins	RP	2	975 XL	W163152	Unknown								
34126_02P	5	HOAL	0278	Albright Building B	Albright Ave			P/D	Non-Health Hazard		Albright B- Boiler Room (Boiler Water Supply Line)	Wilkins	RP	1	975 XL2	4565637	Unknown								
34126_03F	6	HOAL	0278	Albright Building B	Albright Ave			Fire	Non-Health Hazard		Albright B- Boiler Room	Watts	DC	1.5	QT 007 M2	A04533	Unknown								
34420_01P	7	HOAL	0286	Albright Building C	Albright Ave			P/D	Non-Health Hazard		Albright C-Boiler Room (Main Water Supply Line)	Wilkins	RP	2	975 XL2	4358886	Unknown								
34420_02P	8	HOAL	0286	Albright Building C	Albright Ave			P/D	Non-Health Hazard		Albright C-Boiler Room (Boiler Water Supply Line)	Wilkins	RP	1	975 XL2	4102508	Unknown								
34420_03F	9	HOAL	0286	Albright Building C	Albright Ave			Fire	Non-Health Hazard		Albright C-Boiler Room	Watts	DC	1.5	QT 007 M2	A04754	Unknown								
34549_01P	10	HOAL	0438	Albright Building D	Albright Ave			P/D	Non-Health Hazard		Albright D-Boiler Room (Main Water Supply Line)	Wilkins	RP	2	975 XL2	W163096	Unknown								
34549_02P	11	HOAL	0438	Albright Building D	Albright Ave			P/D	Non-Health Hazard		Albright D-Boiler Room (Boiler Water Supply Line)	Wilkins	RP	1	975 XL2	4565626	Unknown								
34549_03F	12	HOAL	0438	Albright Building D	Albright Ave			Fire	Non-Health Hazard		Albright D-Boiler Room	Watts	DC	1.5	QT 007 M2	A04501	Unknown								
34550_01P	13	HOAL	0439	Albright Building E	Albright Ave			P/D	Non-Health Hazard		Albright E-Boiler Room (Main Water Supply Line)	Wilkins	RP	2	975 XL	W163154	Unknown								
34550_02P	14	HOAL	0439	Albright Building E	Albright Ave			P/D	Non-Health Hazard		Albright E-Boiler Room (Boiler Water Supply Line)	Wilkins	RP	1	975 XL	4102501	Unknown								
34550_03F	15	HOAL	0439	Albright Building E	Albright Ave			Fire	Non-Health Hazard		Albright E-Boiler Room	Watts	DC	1.5	QT 007 M2	24043	Unknown								
34122_01F	16	HOAL	0276	Kowski Hall (Albright Training Ctr)	Albright Ave			Fire	Non-Health Hazard		Albright Main Bldg.	Wilkins	DC	4	350	J18802	Unknown								

Unique ID	Inventory File #	Area	Building #	Building Name	Address	GPS	Elevation (feet)	Connection Type	Hazard Type	Use Codes	Room	Mfg.
34124_01P	1	HOAL	0277	Albright Building A	Albright Ave			P/D	Non-Health Hazard		Albright A-Boiler Room (Main Water Supply Line)	Wilkins
34124_02P	2	HOAL	0277	Albright Building A	Albright Ave			P/D	Non-Health Hazard		Albright A-Boiler Room (Boiler Water Supply Line)	Wilkins
34124_03F	3	HOAL	0277	Albright Building A	Albright Ave			Fire	Non-Health Hazard		Albright A-Boiler Room	Watts
34126_01P	4	HOAL	0278	Albright Building B	Albright Ave			P/D	Non-Health Hazard		Albright B- Boiler Room (Main Water Supply Line)	Wilkins
34126_02P	5	HOAL	0278	Albright Building B	Albright Ave			P/D	Non-Health Hazard		Albright B- Boiler Room (Boiler Water Supply Line)	Wilkins
34126_03F	6	HOAL	0278	Albright Building B	Albright Ave			Fire	Non-Health Hazard		Albright B- Boiler Room	Watts
34420_01P	7	HOAL	0286	Albright Building C	Albright Ave			P/D	Non-Health Hazard		Albright C-Boiler Room (Main Water Supply Line)	Wilkins
34420_02P	8	HOAL	0286	Albright Building C	Albright Ave			P/D	Non-Health Hazard		Albright C-Boiler Room (Boiler Water Supply Line)	Wilkins
34420_03F	9	HOAL	0286	Albright Building C	Albright Ave			Fire	Non-Health Hazard		Albright C-Boiler Room	Watts
34549_01P	10	HOAL	0438	Albright Building D	Albright Ave			P/D	Non-Health Hazard		Albright D-Boiler Room (Main Water Supply Line)	Wilkins
34549_02P	11	HOAL	0438	Albright Building D	Albright Ave			P/D	Non-Health Hazard		Albright D-Bolier Room (Boiler Water Supply Line)	Wilkins
34549_03F	12	HOAL	0438	Albright Building D	Albright Ave			Fire	Non-Health Hazard		Albright D-Boiler Room	Watts
34550_01P	13	HOAL	0439	Albright Building E	Albright Ave			P/D	Non-Health Hazard		Albright E-Boiler Room (Main Water Supply Line)	Wilkins
34550_02P	14	HOAL	0439	Albright Building E	Albright Ave			P/D	Non-Health Hazard		Albright E-Boiler Room (Boiler Water Supply Line)	Wilkins
34550_03F	15	HOAL	0439	Albright Building E	Albright Ave			Fire	Non-Health Hazard		Albright E-Boiler Room	Watts
34122_01F	16	HOAL	0276	Kowski Hall (Albright Training Ctr)	Albright Ave			Fire	Non-Health Hazard		Albright Main Bldg.	Wilkins

Type	Size (inches)	Model#	Serial #	Install Date	2026 Test Date	2026 Test Results	2026 Tester Name & ID	2026 Corrective Action Required	Compliant	Cost of Corrective Action
RP	2	975 XL	W163153	Unknown						
RP	1	975 XL	2051889	Unknown						
DC	1.5	QT 007 M2	A04516	Unknown						
RP	2	975 XL	W163152	Unknown						
RP	1	975 XL2	4565637	Unknown						
DC	1.5	QT 007 M2	A04533	Unknown						
RP	2	975 XL2	4358886	Unknown						
RP	1	975 XL2	4102508	Unknown						
DC	1.5	QT 007 M2	A04754	Unknown						
RP	2	975 XL2	W163096	Unknown						
RP	1	975 XL2	4565626	Unknown						
DC	1.5	QT 007 M2	A04501	Unknown						
RP	2	975 XL	W163154	Unknown						
RP	1	975 XL	4102501	Unknown						
DC	1.5	QT 007 M2	24043	Unknown						
DC	4	350	J18802	Unknown						

Comments

Grand Canyon National Park

Cross – Connection Control & Backflow Prevention Program

May 06, 2024

Developed By: GARY LIPPARD Digitally signed by GARY LIPPARD Date: 2024.05.06 12:17:53 -07'00'

Gary L. Lippard, GRCA - USRO / Cross-Connection Control Coordinator Specialists, Date

Reviewed By: PATRICK PERRY Digitally signed by PATRICK PERRY Date: 2024.05.08 16:06:29 -07'00'

Patrick Perry, GRCA - Deputy Chief of Facilities for Water Utilities Branch Date

Approved By: JAMES STONE Digitally signed by JAMES STONE Date: 2024.05.08 16:12:49 -07'00'

J. Treacy Stone, P.E. GRCA - Chief of Facility Management & Engineering Date

GRCA, Facility Management and Engineering Division, Water Utility Branch
P.O. Box 129, 1575 Shuttle Bus Road
Grand Canyon, AZ 86023

Public Water Supply System ID A0403702
Population served: 6,000 (est.)

Original document: 06/10/2015
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Introduction

The legal authority (enabling legislation) that the US Department of Interior, National Park Service (agency) has for the establishment of the Cross Connection Control / Backflow Prevention Program. As outlined within the Federal Safe Drinking Water Act, Amendments of 1996. Then, based on this is the State of Arizona enactment that establishes the states privacy in the control of water within the State of Arizona. Cross-Connection Control is defined in the rules of the Arizona Department of Environmental Quality (ADEQ), of the State of Arizona, Title 18 Chapter 4, of the Arizona Administrative Code (AAC) as follows:

Means a physical connection between a Public Water System (PWS), and any source of water or other substance that may lead to pollution or contamination of the water provided by the Public Water System (PWS) through backflow.

Consequently, either cross-connection or the chance of backflow must be eliminated to prevent degrading the high quality of water that the NPS - GRCA Facility Management and Engineering Division, Water Utility Branch strives to maintain.

The following is the NPS - GRCA Facility Management and Engineering Division, Water Utility Branch's Policy on Cross-Connection Control / Backflow Prevention Program.

It is only through education and commitment can the NPS - GRCA Facility Management and Engineering Division, Water Utility Branch can control the hazards presented by cross connections within its public drinking water supply. NPS - GRCA Facility Management and Engineering Division, Water Utility Branch Services supports this policy and its enforcement and will offer its assistance to all who share the responsibility to provide and maintain safe drinking water.

Chapter 1 - Overview

Purpose

The purpose of this Policy is to protect the National Park Service, Grand Canyon National Park's public potable water supply from the possibility of contamination or pollution. This policy is to promote the control and/or elimination of existing backflow / cross-connections, actual or potential, between its customers usage and the public water supply; and to provide for the maintenance of a continuing program of the backflow / cross-connection control which will systematically and effectively prevent the contamination of the potable water distribution system. This Policy is intended to prevent delivered water **(water that has passed beyond the public water system and into the private distribution systems of customers)** from re-entering the public distribution system and being subsequently re-delivered to customers.
This allows persons active in piping design and installation to incorporate and install appropriate backflow prevention assemblies correctly.

The following is from United States Environmental Protection Agency (USEPA), Cross Connection Control Manual. Public health officials have long been concerned about cross connections and backflow connections in plumbing systems and in public drinking water supply distribution systems. Such cross connections, which make possible the contamination of potable water, are ever present dangers. One example of what can happen is an epidemic that occurred in Chicago, Illinois in 1933. Old, defective, and improperly designed plumbing and fixtures permitted the contamination of drinking water. As a result. 1,409 persons contracted amebic dysentery; there were 98 deaths. This epidemic, and others resulting from contamination introduce into a water supply through improper plumbing, made clear the responsibilities of public health officials and water purveyors for exercising controls over public water distribution systems and all plumbing systems connected to them. This responsibility includes advising and instructing plumbing installers in the recognition and elimination of cross connections.

- To protect the public potable water supply serving the Grand Canyon National Park (GRCA) Water Utility from the possibility of contamination or pollution by isolating, at the source, such contaminants or pollutants which could backflow or back-siphon into the public water system.

- To promote the elimination or control of existing cross-connections, actual or potential, between potable water system, and non-potable water system.

- To provide for the maintenance of a continuing program of cross-connection control, which will systematically and effectively prevent the contamination or pollution of all potable water systems.

Causes of Backflow

The causes of backflow are not usually eliminated completely since backflow is often initiated by accident or unexpected circumstances. However, some causes of backflow can be partially

controlled by good design and informed maintenance. Listed below are the major causes of backflow as outlined under the two types: backsiphonage and backpressure.

1. **Backsiphonage –** is caused by reduced or negative pressure being created in the supply piping. The principal causes of backsiphonage are:

    a. Line repair or break which is lower than a service point. This will allow negative pressures to be created by water trying to flow to a lower point in the system.
    b. Undersized piping – if water is withdrawn from a pipe at a very high velocity, the pressure in the pipe is reduced and the pressure differential created can cause water to flow into the pipe from a contaminated source.
    c. Lowered pressure in water main due to a high-water withdrawal rate such as firefighting activities, water main flushing, water main breaks, etc.
    d. Reduced main pressure on suction side of a booster pump.

2. **Backpressure –** may cause backflow to occur where a potable water system is connected to a non-potable system of piping, and the pressure in the non-potable system exceeds that in the potable system. The principal causes of back pressure are:

    a. Booster pump systems designed without backflow prevention assemblies.
    b. Potable water connections to Boilers, Fire Sprinkler (Suppression) and/or any other pressure systems, without backflow prevention assemblies.
    c. Connections with other systems which may at times have a higher pressure.
    d. Water stored in tanks or plumbing systems which, by virtue of their elevation, would create head pressures enough to cause backflow, if pressure were lowered in the public system.

Cross-Connection Program Description

The National Park Service, Grand Canyon National Park's Cross Connection Control / Backflow Prevention Program is a containment program as defined by Arizona State Regulation, R18-4-215 and the United States Environmental Protection Agency, Office of Water, Cross-Connection Control Manual (4606M) EPA 816-R-03-022, United States Public Health Services, NPS - Office of Public Health, Common Cross-Connections and Recommended Backflow Prevention Devices, November 2021, Reference Manual 83-A (RM-83-A) . This program is housed within the GRCA Facility Management and Engineering Division, Water Utility Branch and has the following duties:

- Administer testing or handles contracts to test and maintain approximately **177** Park owned assemblies annually. Also handles the repairs via contract and/or inhouse of same devices.
- Track annual tests of **258** **NPS-GRCA** and **Commercial Services / Partnerships / ~~WASO - Albright Training Center,~~** managed and maintained assemblies.
- Inspect service connections to ensure compliance with ordinances, rules, regulations, and laws, related to backflow devices.
- Review business surveys and enforce provisions of backflow rules.

- Prepare and submit reports of activities and findings.
    1. **NPS-GRCA, Commercial Services Division -** *Aramark, ~~Bright Angel Bike Shop and Café~~, Delaware North, Xanterra*. **Annual Testing and Repair contract, Deadline August 31st of each year.**
    2. **NPS-GRCA, Partnerships Services Division -** *Grand Canyon Unified School District, Grand Canyon Conservatory.* **Annual Testing and Repair contract, Deadline August 31st of each year.**
    3. **~~NPS-WASO - Albright Training Center,~~ Annual Testing and Repair contract, Deadline August 31st of each year.**
    4. **NPS-GRCA -** *Buildings, Housing, Water Utilities* **Annual Testing and Repair contract, Deadline August 31st of each year.**
    5. **NPS-GRCA-FMD-CCC Program Testing / Repair / Program Review and ADEQ Reporting Deadline Oct 30th of the reporting year.**
- Inspect existing cross connection control devices, to ensure proper, and adequate protection, and installation requirements.
- Develop and review, NPS - GRCA Facility Management and Engineering Division, Water Utility Branch, standard details for the installation of backflow prevention assemblies; maintain current listings of approved backflow prevention assemblies.
- Maintain accurate database of all testing (digital-paper reports), testers, and certifications of third-party companies and NPS personnel.
- Maintain photograph documentation of testing devices; one side profile digital picture of location (Time and Date ID), one digital picture of device identification plate (Time and Date ID). This applies to all backflow device testing Park (GRCA) wide.
- Review for compliance with State and/or Federal rules and recommends revisions to Grand Canyon National Park Cross – Connection Control & Backflow Prevention Program, as appropriate (Annually Jan. to Dec. of each year) to conform to changes in State and/or Federal legislation.
- Review for compliance with State and/or Federal rules and recommends revisions to Grand Canyon National Park Cross – Connection Control & Backflow Prevention Program - Emergency Incident Response Plan, as appropriate (Annually Jan. to Dec. of each year) to conform to changes in State and/or Federal legislation.
- Meet and confer with other local and state agencies on rule making and compliance matters. (Networking / Training with other outside professional groups)
- Investigate backflow incidents and water quality complaints in conjunction with Water Production / Distribution personnel.

Chapter 2 - Responsibilities

Cross Connection Control and Backflow Prevention Program

The responsibilities of Grand Canyon National Park Cross – Connection Control & Backflow Prevention Program, in accordance with State Law R18-4-215, AAC are as follows:

1. To protect Grand Canyon National Park's Public Water Supply, ADEQ - ID A0403702 from the possibility of contamination by isolating within the customers' Private Water Systems, contaminants or pollutants which could, under adverse conditions, backflow through uncontrolled cross-connections, into the Public Water System (PWS).
2. To ensure the containment of Boiler, Fire Suppression, Water Softening Treatment Systems, Livestock Water Tanks, Restaurants, RV Waste Disposal Stations, RV Water Connections Stations **Reclaim Water**, and Irrigation backflow assemblies. That are located on Commercial, Park Operations and Housing properties, are correctly installed and functioning correctly.
3. To provide a continuing inspection program, of the cross-connection control / backflow, which will systematically and effectively control all **actual** or **potential** cross-connecting which may be installed in the future.
4. To educate customers / Park visitors about the dangers of possible cross-connects found on internal plumbing systems.

The GRCA Chief of Facility Management & Engineering shall be responsible for the protection of the public potable water distribution systems from contamination or pollution through the water service connection. If, in the judgment of the Chief of Facility Management & Engineering (and/or Authorize Designees), the United States Public Health Service (USPHS) (Recommendation), Coconino County Health Dept., or the Arizona Department of Environmental Quality (ADEQ) (Regulatory Agency Requirements), an approved backflow prevention assembly is required for the safety of the water system. The GRCA Chief of Facility Management & Engineering and/or designated representatives, shall give written notice to have an appropriate backflow prevention assembly installed. Failure to comply in a timely manner constitute a ground for discontinuing the water service until such device(s) has been properly installed.

Customers

The customers' responsibility starts at the point of delivery from the public potable water system (i.e., Water Meter or non-metered dedicated Fire Suppression line) and includes all their internal water systems. The customer, at their own expense, shall install, operate, test (digital-paper reports), and maintain approved backflow prevention assemblies, as directed by the Grand Canyon National Park. The customer shall maintain accurate records of tests and repairs made to backflow prevention assemblies and provide Grand Canyon National Park with copies of such records.

Annual Testing / Repair Records Package: For each individual device shall consist of fully completed Backflow Prevention Assembly Test form (digital-paper reports), **(fail / passing with repairs / replacement listed, final passing)** (2) two pictures (digital-paper reports) - (1) one picture of the device information plate, & (1) one picture side profile including #1 / #2 isolation valves.

All communication shall be conveyed through the NPS - GRCA Commercial Services Division **-** *Aramark, ~~Bright Angel Bike Shop and Café~~, Delaware North, Xanterra*, NPS - GRCA Partnerships Division **–** *Grand Canyon Unified School District, Grand Canyon Conservatory*, and NPS – ~~WASO Albright Training Center~~. They will communicate back and forth, all information to the GRCA Facility Management and Engineering Division, ~~Deputy Chief of Facilities for~~ Water Utilities Branch.

In the event of accidental pollution or contamination of the public or customers' potable water system due to backflow on or from customer's premises, the owner shall promptly take steps to confine further spread of pollution or contamination within the customers' premises and shall immediately notify the Grand Canyon National Park, of the hazard. This is so that the Emergency Incident Response Plan, can be implemented, and proper notifications to ADEQ can be made.

Backflow Prevention Assembly (Repairer) Installers

The installers' responsibility is to properly install backflow prevention assemblies in accordance with the manufacturers' installation instructions and any additional instructions approved by the Grand Canyon National Park. All backflow devices shall be installed as close as possible to the water meter box with a heated enclosure (Hot Box) or heated structure, unless otherwise approved by Grand Canyon National Park.

The installation location shall be done in accordance with approved plans. Any revisions made to the locations of the backflow device, must be submitted to the Grand Canyon National Park, GRCA Facility Management and Engineering Division, Water Utility Branch, Cross Connection Coordinator for approval. The installer is also responsible for ensuring an assembly is working properly, when it is installed and have a certified tester verify **"passing"** results.

Backflow Prevention Assembly Testers

Backflow testers are required to accurately report (digital-paper reports) the findings from the annual, installation, or repair test reports to the GRCA Facility Management and Engineering Division, Utility Branch within **5 business days** of completing the test. This applies to both Contract Backflow Prevention Companies and NPS Certified Staff.

Tester Requirements:
All backflow testers must be certified by a recognized certifying authority. The GRCA Facility Management and Engineering Division, Utility Branch recognizes the following certificates issued by:

- American Backflow Prevention Association (ABPA).

- Piping Industry Progress & Education Fund (PIPE).
- The International Association of Plumbing and Mechanical Officials (IAPMO)
- The American Society of Sanitary Engineers (ASSE).
- All American Backflow Prevention (AABP).

Tester Equipment:
Each backflow prevention assembly tester shall have properly calibrated and operating equipment to be used in the evaluation of the performance of the assembly they are testing. Each tester conducting test within the Grand Canyon National Park, shall provide the GRCA Facility Management and Engineering Division, Utility Branch with Testing Device Calibration Report, documentation (digital-paper reports) annually.

Test equipment used on any system other than **Potable Water** backflow prevention assemblies, **shall not** be used to test such assemblies. All **Reclaim Water** backflow prevention devices, testing equipment, and reports, shall be identified as **Non-Potable - Reclaim Water.**

It is the responsibility of the tester to keep certification(s) and equipment calibration current and on file with the GRCA Facility Management and Engineering Division, Utility Branch – CCC Office.

Backflow Protection:
GRCA Facility Management and Engineering Division, Water Utility Branch – CCC Office, is responsible for protecting the quality of public water supply. To prevent contamination of the public water supply by backflow and cross connection, the GRCA – FMD – WUB - CCC Office has identified types of developments requiring backflow prevention, and approved types of devices to prevent backflow.

Premises Requiring a Backflow Preventer:
(A) When any of the following items or activities are present or conducted on a premises served by the public potable water supply system, a potential hazard to the public potable water supply system shall be presumed, and the user shall insure that a backflow preventer or air gap, of the type specified for that item or activity herein, is in place at each service connection for that premises. The backflow prevention device should be located as close as possible to the water meter, and if necessary, installed in a hot box. All backflow assemblies shall be installed above ground. Installation in a vault will be prohibited, in less equipped with an adequately sized floor drain.:

1. Aircraft service and repair shop: Reduced Pressure Principle Backflow Prevention Assembly (RPA)
2. Animal veterinary / boarding facilities: RPA
   Note: stock tanks with automatic filling devices are required to have an air gap, two times the diameter of the discharge. The measurement of air gap shall start from the top of the tank unrestricted overflow **(Flood Level Rim)** and the overflow must be two times the diameter of the water line discharge. At no time is the discharge point to be ever submerged and/or blocked (Water) in the tank. Main service line to facility as close as

possible to the meter, an RP **(located within a hot box, if necessary)** will be required to be installed downstream from the meter.

3. Automotive Repair / Service Shops, (with steam cleaners, acid cleaning equipment, or solvent facilities): RPA
4. Auxiliary water systems, public or private: RPA
5. Buildings greater than three stories in height or greater than 34 feet in height from curb level: Double Check Valve Backflow Prevention Assembly (DCVA)
6. Buildings used for commercial or industrial purposes where one service connection supplies more than on tenant or occupant of the building: RPA
7. Buildings where the user's water supply system is in violation of the Uniform Plumbing Code as adopted by the Park: RPA
8. Buildings with house pumps and or potable water storage tanks: DCVA
9. Buildings with landscape fountains, ponds, or baptismal tanks: RPA
10. Buildings with sewage ejectors: RPA
11. Car wash facilities: RPA
12. Cooling towers, boilers, chillers, and other heating and cooling systems utilizing potable water: RPA
13. Chemical storage facilities: RPA
14. Chemically treated **(Water Softening)** potable or non-potable **(Reclaim Water)** water systems: RPA
15. Commercial laundries: RPA
16. Fire hydrant / water meters connected to an irrigation system or any other use included in the Irrigation Systems Subsection: RPA
17. Fire hydrant / water meters, water tanker supply locations: RPA
18. Fire sprinkler systems connected to potable water systems only. No tanks or reservoirs. No additives of any kind. In-line booster pumps are ok. DCVA
19. Fire systems with a storage tank: RPA***
20. Fire sprinkler systems connected to an auxiliary water supply or with FDC's within 1,700 feet of an auxiliary supply: RPA***
21. fire systems with chemical additives: RPA***

*** This RP is to be installed on the fire line outside of the building **not on the riser**.

22. Government owned or operated facilities not open, for inspection **(for LE security reasons)** by the Water Utility: RPA
23. Hospitals and Clinics: RPA
24. Irrigation systems, except as described in Subparagraphs a.-e.: Pressure Vacuum Breaker (PVB)
    a. Premises where non-potable **(Reclaim Water)** water, is used for irrigation: RPA
    b. Systems utilizing fertilizer or pesticide injection systems: RPA
    c. Systems interconnected by more than one service connection: RPA
    d. Systems using potable water with non-potable **(Reclaim Water)** water piping: RPA
    e. Systems designed and constructed capable of inducing backpressure at the service connection: RPA
25. Laboratories using toxic and/or nontoxic materials: RPA
26. Medical and dental buildings, behavioral health centers, engaged in the diagnosis, care or treatment of human illness: RPA

27. Mobile home parks served by master meters: DCVA
28. Multiple (Trailer Village) service connections (1) sanitary yard hydrants equipped with vacuum breaker on individual trailer connections) interconnected for potable uses: (1) on the main line: RPA
29. Oil and gas storage facilities: RPA
30. Portable insecticide or herbicide spray tanks: RPA or Air Gap (AG)
31. Premises served by water meters 3" or greater in size (vault meters): DCVA
32. Premises where a cross-connection is maintained or where a cross-connection previously occurred within a user's premises: RPA
33. Restaurants: RPA
34. RV Dump Stations; (main water supply line) holding tank (Black and Gray Water) disposal: RPA
35. RV Dump Stations; (potable or non-potable water towers supply lines) holding tank (Black and Gray Water) disposal: Atmospheric Vacuum Breaker (AVB)
36. Schools, colleges, and universities: RPA
37. Shopping centers served by master meters: RPA
38. Sewage collection or treatment facilities: RPA
39. Waterfront facilities: RPA
40. Water trucks, water tanks or hydraulic sewer cleaning equipment: RPA or AG

(B) When two or more of the items or activities listed in Subsection A are present or conducted on the same premises and served by the same service connection, the user shall install the most restrictive backflow preventer at the service connection. For purposes of this Subsection the order of most restrictive to least restrictive backflow preventers shall be as follows:

1. Reduced Pressure Principle Backflow Prevention Assembly (RPA)
2. Pressure Vacuum Breaker Assembly (PVB)
3. Double Check Valve Backflow Prevention Assembly (DCVA)

(C) GRCA Facility Management and Engineering Division, Water Utility Branch – CCC Office shall perform site surveys of all new water users and existing water users to determine if the degree of hazard requires a backflow prevention assembly to be installed. If an assembly is required, the user shall comply with the standards set forth in this Chapter within a period of time as determined by the Water Utility Branch – CCC Office, based upon the degree of hazard.

(D) A change of type of use shall require the Water Utility Branch – CCC Office to conduct a new survey of use. If the survey determines a backflow prevention assembly is required, installation shall be completed by the user before the Park may grant the change.

Approved Backflow Prevention Devices:

The following types of backflow prevention devices are approved for use within the Grand Canyon National Park, Facilities Maintenance Division, Water Utilities Branch service area:

- Reduced Pressure Principle Device, (RP)
- Reduced Pressure Principle - Detector Backflow Prevention Assembly (RPDA)

- Reduced Pressure Principle Detector Backflow Prevention Assembly – Type II (RPDA-II)
- Double Check Valve Assembly, (DC)
- Double Check - Detector Backflow Prevention Assembly, (DCDA)
- Double Check - Detector Backflow Prevention Assembly – Type II, (DCDA-II)
- Air Gap Separation, (AG)
- Pressure Vacuum Breaker Backsiphonage Prevention Assembly, (PVB)
- Spill Resistant Vacuum Breaker Backsiphonage Prevention Assembly, (SVB)
- Atmospheric Vacuum Breaker Backsiphonage Prevention Assembly, (AVB)

Chapter 3 - Test Report Submission

It shall be the duty of the customer, at any commercial premises where approved backflow assemblies are installed, to have thorough inspections and operational tests made at least once a year, **(Deadline: August 31st of each calendar year)** or more often as directed by the GRCA Facility Management and Engineering Division, Water Utility Branch. The tests shall be at the expense of the customer and be performed by a properly certified backflow tester.

- All communication shall be conveyed through the NPS - GRCA – Commercial Services Division and Partnerships Division. They will in turn communicate back and forth all information to the GRCA Facility Management and Engineering Division, Deputy Chief of Facilities for Water Utilities Branch.

Test Submission:
The tester shall submit the **Annual Testing / Repair Records Packages** to the GRCA Facility Management and Engineering Division, Utility Branch, GRCA - Backflow / Cross-Connection Control Coordinator, within **5 business days** of test completion.

- Submit report to the GRCA Facility Management and Engineering Division, Utility Branch, for entry into the database excel spreadsheet system. This will include temporary construction backflow tests reports. **(Very detailed; typed or legible print)**

- Test reports shall be filled out completely, with all necessary data as follows:

➢ Water Purveyor ➢ Assembly Service Street Address & NPS - Inventory Location Identifier ➢ Backflow Location Notes ➢ Device; Annual Tests, New Installation, Retest, Replacement ➢ Test Results; (PSID) and Repair Information ➢ Additional comments ➢ Testers Certificate No. & Expiration Date ➢ Two (2) pictures; One (1) of the Device	➢ Device Information: Service Type, (boiler, fire suppression, etc.) Device Type, Serial No., Manufacturer, Model, Size, Water Meter Serial Number. ➢ Type of use and hazard ➢ Test Date ➢ **Pass** or **Fail** ➢ Test Company Information ➢ Testers Name (printed) & Signature ➢ Test Kit (Potable Water or **Reclaim Water**) Model, Certification date, Serial Number. The reclaim water backflow

Information Plate, & One (1) of the Side Profile (Showing isolation valves #1 & #2) of the location, in the room.	testing kit shall be marked with a label **"Reclaim Water"** on the box.

Testing Notifications:
The Park will send out an 1st Annual Backflow Testing / Repair / Replacement **(E-Mail)** reminder by **January 15th** of each reporting year. On **May 1st** of each reporting year, the Park will send out a 2nd Annual Backflow Testing / Repair / Replacement **(E-Mail)** reminder. This will be the last reminder for the year.

The following is a four (4) stepped measured / escalation of enforcement for a Non-Compliance event.

1. If the Park, has not received the annual backflow testing / repair documentation by **August 31st** the customer will be found in **"Non-Compliance"** with this policy. After the due date **(August 31st)** has passed, an **"PASS DUE"** notice will be sent out by E-Mail.

2. If the Park, has not received the annual backflow testing / repair documentation by **September 15th** the customer will be found in **"Delinquency"** with this policy. After the 2nd Pass Due date **(September 15th)** has passed, an **"2nd PASS DUE"** notice will be sent out by E-Mail.

3. If the Park, has not received the annual backflow testing repair documentation by **September 25th** the customer will be sent by E-mail, an **"Final Notice - Water Service Termination"**. Should the customer / location fail to report test results, there will be an escalation of enforcement per this NPS - Grand Canyon National Park, Cross Connection Control / Backflow Prevention Program. This will result in the termination **(Locking Out or Water Meter Remove)** of water service to the location. This is done in the Public Health interest, State and Federal Regulations, and security of the Public Water Utility.

4. Upon notification of a backflow tester (to be scheduled with the GRCA - Cross Connection Coordinator) on site, water service will be restored for testing purposes. If the device test results in a **"Pass Report"**, water service will be fully restored back to service.

Chapter 4 - Cross Connections Surveys and Inspections

Surveys

Due to changes in models or components of equipment, methods of manufacturing and additions to plants, buildings, etc., water use requirements undergo continual change. New cross-connections may be installed, and existing protection may be by-passed, removed, or become otherwise **ineffective**; therefore, a periodic site survey by GRCA Facility Management and Engineering Division, Water Utility Branch, Cross Connection Coordinator, will be required.

These inspections will be on the customer's premises and may consist of, but are not limited to:

1. Notifying customer, commercial services, partnership services, of an onsite inspection.
2. Visual check for Cross-connection. (actual or potential)
3. Verify that the proper device has been installed in relation to potential hazards, to the utility.
4. Verify backflow device is installed and working properly.
5. Verification of test results, NPS-GRCA may accompany the backflow prevention assembly tester during the time of testing. This would require advanced notification to the GRCA Cross connection coordinator, of anticipated time of testing.
6. Assessment for installation of a backflow device, or if none is present.
7. Review all fire suppression systems and associated backflow prevention device requirements and proper application review.
8. Review all livestock watering tanks for proper backflow prevention device requirements and proper application review.
9. If in the judgment of the GRCA - Cross Connection Coordinator an approved backflow device is required to protect the Park Water Utility (Public Water System (PWS), from any contamination or pollution. GRCA - Cross Connection Coordinator, shall give notice in writing per email that the customer is to install the properly approved backflow prevention device within 90 days. And failure or refusal or inability on the part of the customer to install said device or devices within 90 days shall constitute grounds for discontinuing water service to the premise until such device or devices have been properly installed.

Proposed Construction

All new construction plans and specifications for commercial facilities, operations buildings, and housing shall be reviewed by GRCA Facility Management and Engineering Division, Water Utility Branch, Cross Connection Coordinator, to determine the degree of potential cross-connection hazard. At the time of plan review, backflow prevention requirements in accordance with this policy will be made.

New and Existing Facilities

In order to determine the degree of hazard to the public potable water system, a survey will be made of the customers' presently installed water system. This survey does not need to be a detailed inspection of the location or disposition of the water mains but can be confined to establishing the water uses on the premises for the existence of cross-connections, and the availability of auxiliary or **non-potable (Reclaim Water)** water supplies. On-site inspections are done on new and existing facilities and should any devices or plumbing change be required. A notification will be sent, and a follow-up inspection will be completed, at a later date.

Chapter 5 - Cross-Connection Hazards and Required Protections

Type of Backflow Protection Required

An approved backflow prevention assembly of the type designated shall be installed on each water service connection to commercial, operations buildings, and housing facilities. The GRCA Facility Management and Engineering Division, Water Utility Branch uses the most current edition (10th) of the USC-FCCCHR Manual of Cross-Connection Control for list of approved assemblies.

Parallel Installations

All backflow prevention assemblies with test cocks are required to be tested annually. Testing requires a water shutdown usually lasting five (5) to twenty (20) minutes. For facilities that require an uninterrupted supply of water, provisions shall be made for a "parallel installation" of backflow prevention assemblies.

During testing, one assembly is left on while the other is being tested. GRCA Facility Management and Engineering Division, Utility Branch will not accept an unprotected bypass around a backflow assembly when the assembly needs testing, repair, or replacement.

Chapter 6 - Backflow Incident Investigation

The GRCA Facility Management and Engineering Division, Water Utility Branch shall submit a written cross-connection incident report to ADEQ, Coconino Health Dept., and the USPHS, within 5 business days after a cross-connection problem occurs that results in contamination of the public water system.

If a backflow incident were to occur, ADEQ, Coconino Health Dept., and the USPHS, must be notified (Ariz. Admin. Code § R18-4-211-A) within five (5) business days with the following information:

1. Date/Time of discovery of the cross-connection incident,
2. Nature of the cross-connection incident,
3. Affected area,
4. Cause of the cross-connection incident,
5. Public health impact,
6. Date and text of any public health advisory issued,
7. Corrective action taken, and
8. Date of completion of each corrective action.

Internally, the practice will be to follow these steps:

- Locate the source,
- Contact Water Distribution Supervisor / Crew, to isolate source to protect the water distribution system from further contamination,

- Notify the GRCA - Backflow / Cross-Connection Control Coordinator, Management, and the GRCA - Regulatory Compliance Office, Management will contact ADEQ,
- Determine the extent of the spread,
- Notification of the public, if necessary,
- Take corrective action to remove hazard from the distribution system,
- Restore service to the customers.

Chapter 7 - Fire Sprinkler Systems

Plans and permits for fire sprinkler (suppression) systems are processed through the GRCA Facility Management and Engineering Division, Utility Branch, and the GRCA Fire Department. Commercial properties are required to have a testable backflow assembly, if the GRCA Fire Department deems a sprinkler system necessary. The GRCA Fire Department will do a rough and final fire sprinkler (suppression) systems inspection on new construction and/or remodeling construction. This inspection is to verify that the construction complies with state of Arizona fire codes and NPS specifications.

GRCA - Cross Connection Coordinator performs the rough and final inspection of the related backflow prevention device. Before the system can be placed into service a backflow prevention tester has to complete a backflow prevention assembly test form (**Passing**) with two pictures. Backflow prevention devices are required to be installed between the potable water main and the fire sprinkler (suppression) systems, commercial and housing units.

Chapter 8 - Boiler Systems

All commercial, Park operations, and housing utilizing boiler systems for heating require a Reduce Pressure Principle Backflow Prevention Assembly, (RP) for water supply line to the unit. The device size will be determined by the supply line to the boiler.

Chapter 9 - Removal Requirements

It shall be unlawful for any person to alter, modify, bypass, or remove a backflow preventer without the written approval of GRCA Facility Management and Engineering Division, Water Utility Branch - Cross Connection Coordinator. The property owner must contact the GRCA Facility Management and Engineering Division, Water Utility Branch prior, to removing the backflow assembly. A site survey will be completed to assess the actual or potential for cross-connections if the backflow were to be removed. If none are found, the GRCA Facility Management and Engineering Division, Water Utility Branch - Cross Connection Coordinator, will issue a written report documenting the findings.

If the property owner has already removed the backflow, a site survey must be completed to assess the water usage and the status of the removal. The device and piping shall be removed as close as possible to the main service connection. Under no circumstances shall the GRCA Facility Management and Engineering Division, Water Utility Branch, give approval if only the device has been removed and the water lines are open to the air. Grand Canyon National Park

has the right to require the backflow device be reinstalled to protect the Park's potable water distribution system.

Once the removal is completed to the satisfaction of the Park, it can be removed from the database. If there has been a change in owner/tenant or a water use change, the Park can require a backflow device to be reinstalled.

Chapter 10 - Discontinuance of Water Services

As stated in Chapter 3, a reminder E-mail will be sent on **September 26th**. The Park will then generate and send by email, a **"Final Notice - Water Service Termination"**. This email notification will be sent to the business/property owner as part of the escalating enforcement. If the deadline has passed without communication, a **"Notice of Violation" (NOV)** will be issued to the legal authority for the business/owner of the property. The GRCA - Chief of Facility Management & Engineering, will be notified of the violation and the possibility of water disconnect.

Once the **"Notice of Violation" (NOV)** deadline has passed, a call will be placed to the NPS legal authority that the water service to the address will be discontinued. The Park's Commercial Services Supervisor and the FMD Chief of Facilities will be notified of the discontinuance. The Cross Connection Coordinator will place a door hanger at the address notifying the occupant of the discontinuance to happen in **24 hours**. If Commercial Services Division and/or GRCA Facility Management and Engineering Division, Water Utility Branch is not contacted within the time period, the water will be shut off until the violation is resolved.

Chapter 11 – Sources of Information about Cross-Connection Control

American Society of Sanitary Engineering
ASSE International Office
901 Canterbury, Suite A
Westlake, OH 44145
(440) 835-3040

American Backflow Prevention Association (ABPA)
100 N. 20th Street, Suite 200
Philadelphia, PA 19103
(979) 846-7606

American Water Works Association
6666 West Quincy Ave.
Denver, CO 80235-3098
(800) 366-0107

University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research
KAP – 200 University Park MC-2531
Los Angeles, CA 90089-2531
(866) 545-6340

Chapter 12 – Definitions and Cross-Connection Control Industry Terminology

Absolute Pressure:
Is the total combination of gage pressure and atmospheric pressure.

Accessible:
Assemblies must be installed having access for testing, maintenance, and repair.

Administrative Authority:
The official office, board, department, or agency authorized by law to administer and enforce regulation and or code requirements. This includes a duly authorized representative of the Administrative Authority. The state administrative authority sets the minimum standards for a Cross-Connection Control Program.

Air Gap (AG)
The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the vessel. An approved air gap shall be at least double the diameter of the supply pipe, measured vertically, above the overflow rim of the vessel; by physical separation and in no case less than one inch. The relief valve on a RP assembly must be piped to a drain through an air gap. Examples: (Kitchen faucet, bathroom faucet, drains going into a floor sink)

Approved:
Accepted by the GRCA Chief of Facility Management & Engineering as meeting an applicable specification stated or cited in this ordinance, or as suitable for the proposed use. (Meeting certain standards like USC, ABPA, or ASSE)

As-built Drawings:
Blueprint drawings that are modified to reflect the actual piping, configuration and location.

Aspirator:
The means by which liquids are sucked into a piping system. It's the velocity of liquid in the pipe that creates a vacuum or low pressure on the sides of the pipe which allows backsiphonage to occur. (Small tee inlet, water main break)

Assembly:
An assemblance of one or more approved body components, including approved,

shutoff valves, test cocks and check valves. A Y configured reduced pressure assembly has less head loss than an inline assembly.

Atmospheric Pressure:
Is the pressure exerted by the earth's atmosphere at sea level (14.7 psi)
Atmospheric vacuum breaker (AVB): the AVB consists of a float check, a check seat, and an air inlet port. A shutoff valve immediately upstream may or may not be an integral part of the device. The AVB is designed to allow air to enter the downstream water line to prevent backsiphonage. This unit may never be subjected to a backpressure condition, have a downstream shutoff valve, or be installed where it will be in continuous operation for more than 12 hours in a 24-hour period. (AVB's must be installed a minimum of 6 inches above all downstream piping. AVB's are used on lab sinks, janitor sinks, hose bibs, they are not approved, for service protection. AVB's can only be assumed as working by taking it apart and inspecting)

Authority having Jurisdiction:
The agency, organization, office or individual responsible for
approving materials, equipment, work installation, or procedure. (Local authorities: NPS, United States Public Health Service (USPHS)(Recommendation), Coconino County Health Dept., or the Arizona Department of Environmental Quality (ADEQ) (Regulatory Agency Requirement)

Auxiliary Water Supply (Reclaim Water):
Any water supply on or available to the premises, other than the National Park Service approved potable water system, will be considered an auxiliary water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source(s) such as a well, spring, river, lake, stream, etc., or **"Reclaim Water"** or "recycled" or "used water" or "industrial fluids". These waters may be contaminated or polluted, or they may be objectionable and constitute an unacceptable water source over which the National Park Service has no sanitary control. Water users that maintain an auxiliary water supply must provide backflow protection.

Backflow:
The reversal of the normal flow of a liquid, gas, or other substance in a potable
water distribution piping system because of a cross connection. This can be caused by either backpressure or backsiphonage. The #1 cause of a backflow, cross connection is the common garden hose.

Backflow Preventer:
An assembly, device, or method that prohibits the backflow of water into the potable water supply systems. The primary reason for installing a BPA is to prevent backflow. A bypass around a BPA installation is not allowed under any circumstance without the same backflow protection. **(Assembly low rates differ with the size and type)**

Back Pressure:
The flow of water or other liquids, mixtures, or substances under pressure into the pipes of a potable water supply from any source(s) other than the intended source. This backpressure, that would be higher on the water user's side than on the supply side may be caused by a pump,

elevated tank, boiler, air or steam pressure, pressure sprayers, high-rise buildings. (Back pressure is one form of backflow)

Backsiphonage:
The flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply from any source(s) other than its intended source caused by the reduction of pressure in the potable water supply system. This backflow caused by negative, sub atmospheric or reduced pressure in the supply piping. It is when the demand exceeds supply. May be caused by a hose submerged in a liquid, fire pumper truck, broken water main or fire hydrant, venturi effect or the same thing as sucking liquid through a straw. (Backsiphonage is one form of backflow)

Ball Valve:
A quick opening valve with a spherical gate providing a tight shut off. Ball valves on backflow assemblies shall be fully ported and resilient seated.

Barometric Loop:
A looped piping arrangement (35 ft. in height (at sea level) in which the water flows over the loop at the top. This method of backflow prevention is only capable of protecting against back-siphonage since backpressure could drive water backward over the loop.

Bypass:
A piping arrangement that is designed to go around an installed backflow prevention assembly. (Any bypass line must have the same backflow protection as the main line)

Certified Backflow-Prevention Assembly Tester:
A person who has demonstrated competence to test, repair, and maintain backflow-prevention assemblies as evidenced by certification which is recognized by the approving authority. (As a tester are responsible to register yourself, your test gauge and submit field test results to the administrative authority)

Check Valve:
Is a Non-Testable device that is designed to control the direction of flow.

Chief of Facility Management & Engineering:
The GRCA Chief of Facility Management & Engineering oversees the park maintenance and is invested with the authority and responsibility (and/or Authorize Designees) for the implementation of an effective cross-connection control program and for the provisions of this policy.

Customer or Consumer:
The owner, operator, or customer receiving service from a Public Water System. (PWS)

Containment Protection:
A water purveyor's policy to protect the public water system by installing a backflow assembly at the water meter. (Also known as service protection, secondary protection or point of service protection)

Contamination Hazard:
An impairment of a potable water supply by the introduction or admission of any foreign substance that degrades the quality and creates a health hazard. (Also known as a high hazard or health hazard) This can be sewage, industrial fluids, waste liquids, chemical compounds, biological such as pesticides, herbicides, and giardia. An actual or potential hazard to the public health through poisoning or through the spread of disease. Proper backflow protection for a contaminant is a RP assembly.

Critical Level:
A reference line representing the level of the check valve seat within a backflow assembly. It is used to establish the height of the unit above the highest outlet or flood level rim. If it is not marked on the backflow preventer, the bottom of the assembly is the critical level. The critical level is established by the testing lab.

Cross Connection:
A physical connection or arrangement of piping, fixtures between two otherwise separate piping systems. Or a potential connection between any part of a potable water system and any other environment containing pollutants or contaminants in a manner that, under any circumstances, would allow such substances to enter the potable water system. Other substances may be gases, liquids, or solids, such as chemicals, water products, steam, water from other sources (potable or non-potable), Bypass arrangements, jumper connections, dummy section of pipe, spools, swing connections, or changeover assemblies / devices, sliding multiport tube and other temporary or permanent connecting arrangements through which backflow may occur are cross connections. (Two types of cross-connections are Direct and Indirect. An internal CCC Program may be administered by the local health department)

Cross Connection – Controlled:
A connection between a potable a potable water system and a nonportable assembly properly installed and maintained. So that it will continuously afford the protection commensurate with the degree of hazard.

Cross Connection Control by Containment:
The installation of an approved backflow prevention assembly at the water service connection to any building where it is physically and economically infeasible to find and permanently eliminate or control all actual or potential cross connections to the water system within the facilities assigned to the Facility Manager **(NPS, Concessionaires, or Partners)** included in their land assignment; or, it shall mean the installation of an approved backflow prevention assembly on the service line leading to and supplying a portion of a building's water system where there are actual or potential cross connections which cannot be effectively eliminated or controlled at the point of the cross connection.

Cross Connection Control Specialist:
A person who has demonstrated competence to inspect premises for cross-connections and determine the method of backflow protection for any on site hazards by completing a course of study and passing a written exam. (The Cross-Connection Control Specialist must be able to supervise a Cross-Connection Control Program, have good customer relation skills, be able to inform and educate customers by scheduling appointments for inspection. (No cold calls)

Cross Connection Control Survey:
An inspection to determine the degree of hazard and recommend the proper backflow protection. (If access is denied then the installation of a RP assembly is required at the service connection)

Degree of Hazard:
The term is derived from an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system. The assessment of the on-site hazard, it could be a (low hazard, non-health hazard, pollution hazard) or (high hazard, health hazard, contamination hazard) (Hydraulics are always considered when assessing the degree of hazard) (The administrative authority will determine the degree of hazard and require the proper backflow protection)

- **Hazard – Health.** Any condition, device, or practice in the water supply and its operation which could create, or in the judgment of the GRCA Chief of Facility Management & Engineering, Public Health Service, or the appropriate area regulatory officials, may create a danger to the health and well-being of the water consumer.

- **Hazard – Plumbing.** A plumbing type cross-connection in a consumer's potable water system that has not been property protected by an approved air gap or approved backflow prevention assembly.

- **Hazard – Pollution.** An actual or potential threat to the physical properties of the water system or the potability of the water supply which would constitute a nuisance, be aesthetically objectionable, or could cause damage to the system or its appurtenances but would not be dangerous to health.

- **Hazard – System.** An actual or potential threat of severe damage to the physical properties of the potable water system, or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

Deputy Chief of Facilities for Water Utilities Branch:
The GRCA Deputy Chief of Facilities for Water Utilities Branch oversees the park water and wastewater operations / maintenance and is invested with the authority and responsibility (and/or Authorize Designees) for the implementation of an effective cross-connection control program and for the provisions of this policy. The Deputy Chief of Facilities for Water Utilities Branch serves as the supervisor for the Cross-Connection Control Specialist.

Device:
Is a backflow preventer that is Non-Testable; it must be disassembled and inspected to insure it's working properly. (AVB, Dual Check, Hose Bibb Vacuum Breaker)

Differential Pressure Gage:
A pressure gage that measures two pressures (a low pressure and a high pressure) and indicates the difference in the two pressures. (Gages should be calibrated annually. They can be mechanical or digital)

Direct Cross-Connection:
A cross-connection that is subject to both backpressure and backsiphonage. It is a rigid permanent connection to a contaminant or pollution source.

Double Check Valve Assembly (DCVA or DC):
An assembly composed of two independently acting, internally loaded check valves, including tightly closing resilient-seated, fully ported shutoff valves located at each end of the assembly and fitted with 4 properly located resilient-seated, fully ported test cocks. This assembly shall only be used to protect against a non-health hazard (that is, a pollutant). (The checks must be drip tight in the direction of flow, max head loss 10 psi, if it is found connected to a high hazard then notify the admin authority)
The entire assembly shall meet the design and performance specifications as determined by the, Foundation for Cross Connection Control at USC for backflow prevention assemblies. To be approved, these assemblies must be readily accessible for in-line testing and maintenance.

Double Check-Detector Backflow Prevention Assembly (DCDA):
A backflow assembly specially designed assembly composed of a line-size approved double check valve assembly with a bypass containing a specific water meter and an approved double check valve assembly. The meter shall register accurately for only very low rates of flow up to 3 gpm (gallons per minute) and shall show a registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard (that is, a pollutant).

Dual Check:
A Non-Testable backflow device with two check valves and no test cocks.

Effective Opening:
The minimum cross-sectional area at the point of water supply discharge, measured or expressed in terms of the diameter of a circle, or if the opening is not circular, the diameter of a circle of equivalent cross-sectional area. **(Don't confuse with an air gap, which is determined by the size of the effective opening)**

Expansion Tank:
A tank used for safely controlling the expansion of water. (An expansion tank or other method of controlling thermal expansion must be addressed when installing a backflow assembly on the water service) When a BPA is installed a closed system is created.

Fire Department Connection: (FDC or Siamese Connection)
A connection through which a fire department can introduce supplemental water with or without the addition of other chemical fire retarding agents by the means of a pump into a sprinkler system, standpipe, or other fire suppression system.

Fire Protection Systems (Water Based):
Sprinkler system is a system of underground and overhead piping hydraulically designed and constructed to which sprinkler heads are attached for extinguishing fire.

1. **Wet Pipe System:** A sprinkler system containing water and connected to a water supply.

2. **Antifreeze System:** A wet pipe sprinkler system containing antifreeze.

3. **Dry Pipe System:** A sprinkler system containing air or nitrogen under pressure and connected to a water supply. A sprinkler head opening allows the air or nitrogen to be released from the system and water to enter the system. Dry pipe systems are to be always maintained dry. Exception: During non-freezing conditions, the system can be left wet if the only other option is to remove the system from service while waiting for parts or during repair activities.

4. **Deluge System:** A sprinkler system having open sprinkler heads connected to a water supply. The sprinkler system piping is dry until the fire detection system opens the water supply valve to the system.

5. **Pre-Action System:** A sprinkler system containing air that may or may not be under pressure and connected to a water supply but having a supplemental detection system in the area of the sprinklers that would open a supply valve allowing water to flow into the system and to be discharged by any open sprinkler.

6. **Combined Dry Pipe-Pre-Action System:** A sprinkler system containing air under pressure with a supplemental detection system installed in the area of the sprinklers. The detection system actuates tripping devices that open water inlet and air exhaust valves, which generally precedes the opening of the sprinklers. The detection system additionally serves as a fire alarm system.

7. **Standpipe System:** A piping system having valves, hose connections, and allied equipment installed within a premises, building or structure where the hose connections are located in a manner to discharge water through an attached hose and nozzle to extinguish a fire. These systems maybe wet or dry and may or may not be directly connected to a drinking water supply system. They may also be combined with a sprinkler system.

   There are three classes of standpipe systems.

   - Class I service provides 2 ½ in. hose stations from a standpipe or combined riser.
   - Class II service provides 1 ½ in. hose stations from a standpipe, combined riser, or sprinkler system. Exception: A minimum 1 in. hose may be used

for Class II Light Hazard Occupancies if investigated, listed, and authorized by the authority having jurisdiction.

- Class III service provides 1 ½ in. and 2 ½ in. hose connections or 1 ½ in. or 2 ½ in. hose stations from a standpipe or combination riser.

8. **Foam-Water Sprinkler and Spray Systems:** a special fire protection system pipe-connected to a source of foam concentrate and to a water supply. The system may discharge the foam agent before, after or with the water over the area to be protected.

Fire system classes: The 6 AWWA classes of fire systems

1. **Class 1 A fire system fed directly from a public water supply with line pressure only.**
2. **Class 2 A fire system fed directly from a public water supply with line pressure assisted with a booster pump.**
3. **Class 3 A fire system fed directly from a public water supply with line pressure, system has potable water storage tank, and has a booster pump.**
4. **Class 4 A fire system fed directly from a public water supply with line pressure, system has an auxiliary water supply. (i.e.: well, reclaimed water supply system)**
5. **Class 5 A fire system fed directly from a public water supply with line pressure, system has unapproved storage or well supply.**
6. **Class 6 A fire system fed directly from a public water supply with line pressure, system has chemical injection.**

Fire System General Information:

When testing a backflow assembly on a fire system, tamper switches may be an integral part of the shut off valves on the backflow assembly and may activate and sound an alarm when closed or opened. Notification of the premise owner, Alarm company and fire department are required before shutting off and testing the assembly. Fire codes may require a forward flow test on the backflow assembly to verify the assembly will allow the designed rate of flow.
According to AWWA standard practice all fire hydrants must be installed on 6" or larger water mains and the supply pressure can't drop below 20 psi, if this happens negative pressure can develop and create a backsiphonage condition. Example when a fire pumper truck is taking more water than the system can supply.

Flood Level Rim:

Is the level from which liquid in plumbing fixtures, appliances, or vats could overflow to the floor, when all drain and overflow openings built into the equipment are obstructed. (Air gaps are measured from the flood rim)

Gauge Pressure:

Pressure that is registered on a gauge, does not consider atmospheric pressure.

Health Hazard:

A cross connection or potential cross connection involving a contaminate that could if exposed or introduced into the potable water supply, cause death, illness, or spread disease, or have a high probability of causing such effects. (High hazard, contamination hazard, 3 types of health

hazards—chemical, biological, physical (airs and gasses) (Education on and identifying health hazards is an essential part of a CCC program) (boiler feed with or without chemicals)

Indirect Cross-Connection:
A potential or existing cross-connection that is created but is not constructed to be permanent and is subject to backsiphonage only. (Most common is a hose attached to potable water outlet and submerged in a non-potable liquid)

Industrial Fluids System:
Any system containing a fluid or solution, which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration such as would constitute a health, system, pollution, or plumbing hazard if introduced into an approved water supply. This may include, but not be limited to: pollution or contaminated waters, all type of processed waters and "used water" or **"Reclaim Water"** originating from the public potable water system which may be deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalizes; circulating cooling waters connected to an open cooling tower and/or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, irrigation canals, or systems, etc; oils, gases, gaseous fluids used in industrial or other purposes or for firefighting purposes, recirculating hot water systems, hot water heating systems, solar systems with antifreeze solutions, and charged fire systems.

Inspection:
A visual examination of backflow protection equipment, materials, workmanship, or portion thereof to verify installation and operational performance.

Inspector:
An individual working for or under the authority having jurisdiction empowered to ensure code compliance.

Inter Connection:
Any connection between the water meter and the service protection backflow assembly. (None allowed)

Internal Isolation:
Fixture isolation and/or isolation of an area or zone. Isolation at the fixture means installing an approved backflow preventer at the source of the potential contamination within a specific area. (Internal protection, primary protection, point of use protection) (An internal CCC Program should be administered by a local health department)

Irrigation Water:
Water utilized for plant life.

Listed-Classified-Approved:
Materials, equipment, fixtures, and other products included in a list published by an agency or organization that has successfully evaluated the item and determined compliance with the

agencies established material and or performance standards. (Agencies such as ASSE, FM, UL, ANSI, USC)

Maintenance:
Work performed or repairs made to keep equipment operable and in compliance.

Negative Pressure:
Is pressure that is below zero psi gauge or below 14.7 psi atmospheric.

Non-Health Hazard:
A cross connection or potential cross connection involving any substance that generally would not be a health hazard but would constitute a nuisance, or be aesthetically objectionable, if introduced into the potable water supply. (Also called Low hazard, pollution hazard, taste, odor, color change in water)

Physical Location Code System:

- BA/TR - Bright Angel Trail
- CVIP – Canyon Visitor Interpretive Pavilion
- DV - Desert View
- FMD - Facility Management Division
- GCUSD - Grand Canyon Unified School District
- HG - Havasupai Garden
- HR - Hermits Rest
- HQ - Head Quarters
- NR - North Rim
- PR - Phantom Ranch
- RSP – Roaring Springs Pumphouse
- SRM - Science and Resource Management
- SR - South Rim
- WTP - Water Treatment Plant
- WWTP - Wastewater Treatment Plant
- 1.5-M/RH - 1.5 Mile Resthouse
- 3-M/RH - 3 Mile Resthouse

Plumbing System:
All potable water and distribution pipes, fixtures, traps, drainage pipe, gas pipe, water treating or using equipment, vent pipe, including joints, connections, devices, receptacles, and appurtenances within the property lines of a premises.

Pollution Hazard:
The presence of any foreign substance (organic, inorganic, or biological) in water that tends to degrade its quality so as to constitute a non-health hazard, low hazard or impair the usefulness of the water. (Taste, color, odor, low hazard, non-health hazard)

Potable Water:
Water that is safe for human consumption as described by the public health authority having jurisdiction and meets EPA standards.

Non-Potable Water:
Water which is not safe for human consumption, or which is of questionable quality.

Premises Isolation:
Preventing backflow into a public water system from a user's premises by installing a suitable backflow preventer at all of the user's potable water connections. (Also called Service Protection, Secondary Protection, Containment Protection)

Pressure Vacuum Breaker Assembly (PVB):
An assembly consisting of an independently operating internally loaded check valve, an independently operating loaded air inlet valve located on the discharge side of the check valve, with properly located resilient-seated test cocks and tightly closing resilient-seated shutoff valves attached at each end of the assembly designed to operate under pressure for prolonged periods of time to prevent backsiphonage. (The pressure vacuum breaker may not be subjected to backpressure. 1psi min on air inlet and check, max head loss 10psi, protects against backsiphonage only, must be 12" above all downstream piping & outlets, will protect against low and high hazards)

Readily Accessible:
The assembly is capable of being reached for testing and maintenance without the removal of a panel, door, or any other structure. (Need to have room to work on and test UPC recommends 12" clearance on all sides)

Rated Flow:
All backflow assemblies have a normal rate of flow, it is usually a balance between the head loss and flow rate. (The higher the flow rate the higher the head loss)

Reclaimed Water:
Water that, as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.

Reduced Pressure Principle Assembly
An assembly of two independently acting approved check valves together with a hydraulically operating, mechanically independent differential pressure relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and resilient seated shut-off valves at each end of the assembly. The entire assembly shall meet the design and performance specification as determined by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California (USC). University Park, Los Angeles, CA 90089., for backflow prevention assemblies. The assembly shall operate to maintain the pressure in the zone between the two check valves at an acceptable level less than the pressure on the potable water supply side of the

assembly. At cessation of a normal flow the pressure between the two check valves shall be less than the pressure on the public supply side of the assembly.
In case of leakage of either of the check valves, the differential relief valve shall operate to maintain the reduced pressure in the zone between the check valves by discharging to the atmosphere. When the inlet pressure is (2) two pounds per square inch (PSI) or less, the relief valve shall be open to the atmosphere.

To be approved, these assemblies must be readily accessible (No items are to be stored around and/or on the assembly) for in-line testing and maintenance and be installed in a location where no part of the assembly will be submerged.

Reduced Pressure Principle Backflow Prevention Assembly (RPBA, RP, RPA, RPZ):
These units consist of two tightly closing resilient-seated shutoff valves, four properly located resilient-seated test cocks, two independently acting internally loaded approved check valves together with a hydraulically operating, mechanically independent pressure differential relief valve located between the two check valves and below the first check valve. (Relief valve is closed by system pressure, #1 spring loading is 5psi, #2 spring loading is 1psi, relief spring loading is 2psi, spring loadings are different and are not interchangeable, install 12" above any flood rim, a Y configured assembly has less head loss than an inline one)

Reduced Pressure Principle Detector Backflow Prevention Assembly (RPDA): A backflow assembly specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for only very low rates of flow up to 3 gpm and shall show a registration for all rates of flow. This assembly shall be used to protect against a non-health hazard (that is, a pollutant) or a health hazard (that is, a contaminant). **The RPDA is primarily used on fire sprinkler systems.**

Relief Valve:
An automatic valve that opens and closes at a preset value.
Service Connection: the piping connection between the water purveyors' main and a user's system. **(Must be a minimum of ¾ inch)**

Service Protection:
Refers to the backflow protection installed on the water supply line to a premise as close to the service connection to the public water system as possible. (Containment protection, secondary protection, point of service protection)

Spill Resistant Pressure Vacuum Breaker (SVB):
A backflow assembly containing an independently operating internally loaded check valve and independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with a properly located resilient seated test cock, a properly located bleed/vent valve, and tightly closing resilient seated shutoff valves attached at each end of the assembly. (This assembly is designed to protect against both a non-health hazard (that is, a pollutant) or a health hazard (that is, a contaminant) under a backsiphonage condition only.

Minimum air inlet loading 1psi, check valve 1psi, max head loss 10psi, protection of low and high hazards, backsiphonage only, must be installed 12" above all downstream piping and outlets)

Submerged Inlet:
An inlet pipe opening which is below the flood rim level of the receptacle.
Test cock: a valve that is used to provide access to a backflow assembly for testing.

Testing:
A procedure to determine the operational and functioning status of a backflow preventer. (Tester responsibility, submit test results to the administrative authority)

Test Equipment:
An electronic or mechanical instrument recognized by the authority having jurisdiction to test the operational performance of a backflow preventer. must be calibrated annually and calibration submitted to the administrative authority (NPS-GRCA-FMD-CCC Office).

Thermal Expansion:
Is an increase in volume of a liquid due to an increase in temperature. When water is heated in a closed vessel the pressure increases, this can cause your water heater to discharge after a BPA is installed. (Closing the system)

Union:
A three-part coupling device used to join pipe. A dielectric union is for dissimilar metals.

Vacuum:
Any space in a water supply system from which water has been displaced by water vapor, air, or other gases when the pressure is less than the prevailing atmospheric pressure.
(A vacuum relief valve should never be used as a BPA) A perfect vacuum at sea level can lift water 33.9 feet.

Venturi:
The narrowing of a section of pipe used to create a vacuum for the injecting of chemicals.
(Venturi effect caused by high velocity through a narrow section of pipe)

Water Hammer:
The hammering noises and severe shocks that may occur in a pressurized water system when flow is stopped abruptly by the rapid closure of a valve or faucet.

Water Meter:
The point of connection from the public water system to the private water system. (This would be the starting point for assessing the degree of hazard)

Water Purveyor:
The owner or operator of a public water system. (The water purveyor is the enforcement authority for requiring the installation of backflow protection)

Water Service Types:

- **Combined:** A combined water service is a water service that is used for more than one purpose. The domestic potable water service enters a building to feed the domestic needs and also is used for a fire sprinkler system. **NOTE:** Depending on the type of fire service, a separate backflow assembly may be needed in addition to the service protection backflow assembly.
- **Commercial:** A commercial water service is similar to an industrial water service, as it may supply several high hazard waters uses on site.
- **Critical:** Customers may require an uninterrupted continuous supply of water. When that is the case, assemblies may be installed parallel with each other the size of the cross-sectional areas of the backflow assemblies need to equal that of the water meter. **Example:** One two-inch meter with two 2" backflow assemblies.
- **Dual:** Similar to a combined service where the water use may be used for domestic and fire protection.
- **Industrial:** An industrial water service usually feeds a manufacturing facility with several high hazard water uses on site.
- **Multiple:** Multiple water services are just that, there is more than one water service on a site. The services may be tied together in a loop or serve individual buildings on site. Multiple water services may also be a combination of different services such as a domestic water service, fire water service, separate irrigation meter, reclaimed water supply or any other auxiliary water supply on site.
- **Restricted:** A water service where access is denied. This type of service will require the installation of a RP assembly at the meter.

Appendix: A,

Ariz. Admin. Code § 18-4-215

Ariz. Admin. Code § 18-4-215
Current through Register Vol. 29, No. 5, February 3, 2023

Section R18-4-215 - Backflow Prevention

A. A public water system shall protect its system from contamination caused by backflow through unprotected cross-connections by requiring the installation and periodic testing of backflow-prevention assemblies. Required backflow-prevention assemblies shall be installed as close as practicable to the service connection.

B. A public water system shall ensure that a backflow-prevention assembly is installed whenever any of the following occur:

1. A substance harmful to human health is handled in a manner that could permit its entry into the public water system. These substances include chemicals, chemical or biological process waters, water from public water supplies that has deteriorated in sanitary quality, and water that has entered a fire sprinkler system. A Class 1 or Class 2 fire sprinkler system is exempt from the requirements of this Section;

2. A source of water supply exists on the user's premises that is not accepted as an additional source by the public water system or is not approved by the Department;

3. An unprotected cross-connection exists, or a cross-connection problem has previously occurred within a user's premises; or

4. There is a significant possibility that a cross-connection problem will occur and entry to the premises is restricted to the extent that cross-connection inspections cannot be made with sufficient frequency or on sufficiently short notice to ensure that unprotected cross-connections do not exist.

C. Unless a cross-connection problem is specifically identified, or as otherwise provided in this Section, the requirements of this Section shall not apply to single-family residences used solely for residential purposes.

D. A backflow-prevention assembly required by this Section shall comply with the following:

1. If equipped with test cocks, it shall have been issued a certificate of approval by:

a. The University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC-FCCCHR), or

b. A third-party certifying entity that is unrelated to the product's manufacturer or vendor and is approved by the Department.

2. If not equipped with test cocks, it shall be approved by a third-party certifying entity that is unrelated to the product's manufacturer or vendor and is approved by the Department.

E. The minimum level of backflow protection that is provided to protect a public water system shall be the level recommended in Section 7.2 of the Manual of Cross-Connection Control, Ninth Edition, USC-FCCCHR, KAP-200 University Park MC-2531, Los Angeles, CA, 90089-2531, December 1993, (and no future editions or amendments), incorporated by reference and on file with the Department. The types of backflow prevention that may be required, listed in decreasing order according to the level of protection they provide, include: an air-gap separation (AG), a reduced pressure principle backflow prevention (RP) assembly, a pressure vacuum breaker

(PVB) assembly, and a double check valve (DC) assembly. Nothing contained in this Section shall prevent a public water system from requiring the use of a higher level of protection than the level required by this subsection.

1. A public water system may make installation of a required backflow-prevention assembly a condition of service. A user's failure to comply with this requirement shall be sufficient cause for the public water system to terminate water service.

2. Specific installation requirements for backflow prevention include the following:

a. Any backflow prevention required by this Section shall be installed in accordance with the manufacturer's specifications.

b. For an AG installation, all piping between the user's connection and the receiving tank shall be entirely visible unless otherwise approved in writing by the public water system.

c. An RP assembly shall not be installed in a meter box, pit, or vault unless adequate drainage is provided.

d. A PVB assembly may be installed for use on a landscape water irrigation system if the irrigation system conforms to all of the criteria listed below. An RP assembly is required whenever any of the criteria are not met.

i. The water use beyond the assembly is for irrigation purposes only;

ii. The PVB is installed in accordance with the manufacturer's specifications;

iii. The irrigation system is designed and constructed to be incapable of inducing backpressure; and

iv. The injection of chemical pesticides and fertilizers, chemigation, is not used or provided in the irrigation system.

F. Each backflow-prevention assembly required by this Section shall be tested at least annually, or more frequently if directed by the public water system or the Department. Each assembly shall also be tested after installation, relocation, or repair. An assembly shall not be placed in service unless it has been tested and is functioning as designed. The following provisions shall apply to the testing of backflow-prevention assemblies:

1. Testing shall be in accordance with procedures described in Section 9 of the Manual of Cross-Connection Control. The public water system shall notify the water user when testing of backflow-prevention assemblies is needed. The notice shall specify the date by which the testing must be completed, and the results forwarded to the public water system.

2. Testing shall be performed by a person who is currently certified as a "general" tester by the California-Nevada Section of the American Water Works Association (CA-NV Section, AWWA), the Arizona State Environmental Technical Training (ASETT) Center, or other certifying authority approved by the Department.

3. When a backflow-prevention assembly is tested and found to be defective, it shall be repaired or replaced in accordance with the provisions of this Section.

G. A public water system shall maintain records of backflow-prevention assembly installations and tests performed on backflow-prevention assemblies in its service area. Records shall be retained by the public water system for at least three years and shall be made available for review by the Department upon request. These records shall include an inventory of backflow-prevention assemblies required by this Section and, for each assembly, all of the following information:

1. Assembly identification number and description,
2. Location,
3. Date of tests,
4. Description of repairs and recommendations for repairs made by the tester, and
5. The tester's name and certificate number.

H. A public water system shall submit a written cross-connection incident report to the Department and the local health authority within five business days after a cross-connection problem occurs that results in contamination of the public water system. The report shall address all of the following:

1. Date and time of discovery of the unprotected cross-connection,
2. Nature of the cross-connection problem,
3. Affected area,
4. Cause of the cross-connection problem,
5. Public health impact,
6. Date and text of any public health advisory issued,
7. Each corrective action taken, and
8. Date of completion of each corrective action.

I. An individual with direct responsibility for implementing a backflow prevention program for a water system serving more than 50,000 persons, or an individual with direct responsibility for implementing a backflow prevention program for a for a water system serving 50,000 or fewer persons if the Department has determined that such a need exists, shall be licensed as a "cross-connection control program specialist" by the CA-NV Section, AWWA, the ASETT Center, or another certifying authority approved by the Department.

Historical Note;
Ariz. Admin. Code § R18-4-215

Adopted effective August 8, 1991 (Supp. 91-3). Section repealed; new Section adopted effective April 28, 1995 (Supp. 95-2). Amended effective June 3, 1998 (Supp. 98-3). Section R18-4-215 repealed; new Section renumbered from R18-4-115 and amended by final rulemaking at 14 A.A.R. 2978, effective August 30, 2008 (Supp. 08-3).

Appendix: B,

List of NPS – GRCA – Backflow Repair / Tester Specialists &
2024 Backflow Gauge Testing Equipment Calibration Reports:

NPS – GRCA, List of Backflow Repair / Testers:

1. Chad Larrieu, ABPA Certificate #03-211175, expires 11/13/2024
2. ~~Sherryl Johnson, ABPA Certificate #03-1198, expires 05/16/2023~~
3. ~~Colton Lindbom, ASSE – IAPMO BPI Certificate #48054, expires 04/03/2024~~

NPS – GRCA, 2024 Backflow Gauges Testing Equipment Calibration Reports:

Appendix: C,

United States Environmental Protection Agency (USEPA) Cross-Connection Control Manual

Appendix: D,

United States Environmental Protection Agency (USEPA) Cross-Connection Control; A Best Practices Guide

Appendix: E,

American Water Works Association (AWWA) M-14 Backflow / Cross-Connection Control; A Best Practices Guide

Appendix: F,

United States Public Health Services, NPS - Office of Public Health, Common Cross-Connections and Recommended Backflow Prevention Devices Field Guide / Manual, November 2021

GRAND CANYON NATIONAL PARK
PROJECT FLIGHT REQUEST FORM

Flight Request # _____
(assigned by aviation staff)

To be completed by the person requesting the flight.

Name:_____ Division/Office:_____

Work Telephone:_____ Email:_____

FLIGHT INFORMATION Email requests to email provided

Platform : ☐Airplane (Galen Howell) ☐Helicopter (GRCA_Helibase) ☐UAS (GRCA_Helibase)

Detailed Flight Description:

FLIGHT JUSTIFICATION- Why can't this mission be done without aviation support?
Explanation:

HAS COMPLIANCE BEEN COMPLETED FOR THIS FLIGHT? ☐YES ☐NO
DOES THIS FLIGHT MEET MINIMUM REQUIREMENTS ANALYSIS (MRA)? ☐YES (attach to form) ☐NO

Helicopter flights will only be scheduled between the hours of 9:00 AM and 4:30 PM unless otherwise approved by aviation management staff.

Day, date, and time flight is requested: _____

Passenger Manifest: (include yourself if you are going)

Name	Weight	Aircrewmember Expiration Date

Cargo: (ie: plumbing tools 75 pounds)

Description	Weight

Are sling (i.e., external) loads required?
☐NO ☐YES
if yes, how many?_____ approximate weights:1\ 2\ 3\ 4\ 5\

FISCAL INFORMATION- Flights will not start without a valid GRCA charge code. (IAA) agreements must also provide IAA number below. Charge codes must be legible.

Account number(s) to be charged:

_____

Interagency Agreement#_____

Fiscal Information Point of Contact Name:_____

Work Telephone:_____ Email:_____

TRIP REQUESTOR MUST INITIAL AND SIGN BELOW

____ Approval of this Flight Request Form indicates authorization to charge any premium pay (i.e., overtime, hazard pay, etc.) incurred during the accomplishment of this mission to the account number provided in the Fiscal Information section.

_____ _____

Trip Requestor's Signature Date

- Flights will not occur unless the park's aviation management personnel have this fully completed, signed, and approved Flight Request Form in their possession prior to flight time.
- All passengers must be at the departure location (South Rim Helibase, Grand Canyon Airport, or other appropriate location) at least 15 minutes prior to flight departure.
- If the flight is postponed or cancelled because of weather, aircraft maintenance, etc., this authorization is good for five (5) working days from the day, date, and time listed in the Flight Data section. A new Flight Request Form is not needed.

THIS SECTION TO BE COMPLETED BY DIVISION CHIEF OR DESIGNATED REPRESENTATIVE

The above requested flight is the most appropriate tool for the job. I certify that all passengers are current and in compliance with required basic aviation safety training. I have reviewed the fiscal information and certify that it is a valid GRCA account.

_____ _____ _____

Division Chief's Signature Name Printed Date

Forward approved flight requests to the Superintendent's Office for final review and disposition.

HELIBASE USE ONLY: RECEIVED BY:_____ **DATE:**_____

CONFIRMED/SCHEDULED BY:_____

"

REGISTER OF WAGE DETERMINATIONS UNDER THE SERVICE CONTRACT ACT
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINISTRATION
WAGE AND HOUR DIVISION
WASHINGTON D.C. 20210

Daniel W. Simms
Director

Division of
Wage Determinations

Wage Determination No.: 2015-5465
Revision No.: 30
Date Of Last Revision: 5/13/2026

State: Arizona

Area: Arizona Counties of Coconino

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	FOOTNOTE	RATE
01000 - Administrative Support And Clerical Occupations		
01011 - Accounting Clerk I		18.55
01012 - Accounting Clerk II		20.82
01013 - Accounting Clerk III		23.29
01020 - Administrative Assistant		30.06
01035 - Court Reporter		20.24
01041 - Customer Service Representative I		15.78
01042 - Customer Service Representative II		17.22
01043 - Customer Service Representative III		19.33
01051 - Data Entry Operator I		16.27
01052 - Data Entry Operator II		17.75
01060 - Dispatcher, Motor Vehicle		25.40
01070 - Document Preparation Clerk		15.72
01090 - Duplicating Machine Operator		15.72
01111 - General Clerk I		17.96
01112 - General Clerk II		19.60
01113 - General Clerk III		22.00
01120 - Housing Referral Assistant		22.62
01141 - Messenger Courier		13.17
01191 - Order Clerk I		14.49
01192 - Order Clerk II		16.15
01261 - Personnel Assistant (Employment) I		17.53
01262 - Personnel Assistant (Employment) II		19.61
01263 - Personnel Assistant (Employment) III		21.85
01270 - Production Control Clerk		25.82
01290 - Rental Clerk		18.09
01300 - Scheduler, Maintenance		18.13
01311 - Secretary I		18.13
01312 - Secretary II		20.29
01313 - Secretary III		22.62
01320 - Service Order Dispatcher		22.71
01410 - Supply Technician		30.06
01420 - Survey Worker		20.12
01460 - Switchboard Operator/Receptionist		18.52
01531 - Travel Clerk I		16.91
01532 - Travel Clerk II		18.25
01533 - Travel Clerk III		19.74
01611 - Word Processor I		15.80
01612 - Word Processor II		17.73
01613 - Word Processor III		19.84
05000 - Automotive Service Occupations		
05005 - Automobile Body Repairer, Fiberglass		23.81
05010 - Automotive Electrician		22.36
05040 - Automotive Glass Installer		20.84
05070 - Automotive Worker		20.84
05110 - Mobile Equipment Servicer		17.85
05130 - Motor Equipment Metal Mechanic		23.83
05160 - Motor Equipment Metal Worker		20.84
05190 - Motor Vehicle Mechanic		23.83
05220 - Motor Vehicle Mechanic Helper		16.34
05250 - Motor Vehicle Upholstery Worker		19.35
05280 - Motor Vehicle Wrecker		20.84
05310 - Painter, Automotive		22.36
05340 - Radiator Repair Specialist		20.84
05370 - Tire Repairer		18.83
05400 - Transmission Repair Specialist		23.83
07000 - Food Preparation And Service Occupations		
07010 - Baker		18.95

07041 - Cook I		19.83
07042 - Cook II		23.15
07070 - Dishwasher		17.30
07130 - Food Service Worker		17.36
07210 - Meat Cutter		20.58
07260 - Waiter/Waitress		17.17
09000 - Furniture Maintenance And Repair Occupations		
09010 - Electrostatic Spray Painter		27.23
09040 - Furniture Handler		18.15
09080 - Furniture Refinisher		27.23
09090 - Furniture Refinisher Helper		19.90
09110 - Furniture Repairer, Minor		23.56
09130 - Upholsterer		27.23
11000 - General Services And Support Occupations		
11030 - Cleaner, Vehicles		17.80
11060 - Elevator Operator		17.85
11090 - Gardener		21.95
11122 - Housekeeping Aide		17.90
11150 - Janitor		17.90
11210 - Laborer, Grounds Maintenance		18.32
11240 - Maid or Houseman		16.66
11260 - Pruner		17.48
11270 - Tractor Operator		20.09
11330 - Trail Maintenance Worker		18.32
11360 - Window Cleaner		18.76
12000 - Health Occupations		
12010 - Ambulance Driver		23.57
12011 - Breath Alcohol Technician		33.03
12012 - Certified Occupational Therapist Assistant		45.31
12015 - Certified Physical Therapist Assistant		33.28
12020 - Dental Assistant		22.35
12025 - Dental Hygienist		47.40
12030 - EKG Technician		50.03
12035 - Electroneurodiagnostic Technologist		50.03
12040 - Emergency Medical Technician		23.57
12071 - Licensed Practical Nurse I		29.53
12072 - Licensed Practical Nurse II		33.03
12073 - Licensed Practical Nurse III		36.81
12100 - Medical Assistant		21.35
12130 - Medical Laboratory Technician		27.63
12160 - Medical Record Clerk		22.90
12190 - Medical Record Technician		25.61
12195 - Medical Transcriptionist		28.23
12210 - Nuclear Medicine Technologist		72.58
12221 - Nursing Assistant I		14.45
12222 - Nursing Assistant II		16.26
12223 - Nursing Assistant III		17.75
12224 - Nursing Assistant IV		19.92
12235 - Optical Dispenser		30.91
12236 - Optical Technician		29.53
12250 - Pharmacy Technician		22.67
12280 - Phlebotomist		24.52
12305 - Radiologic Technologist		50.03
12311 - Registered Nurse I		39.13
12312 - Registered Nurse II		47.88
12313 - Registered Nurse II, Specialist		47.88
12314 - Registered Nurse III		57.92
12315 - Registered Nurse III, Anesthetist		57.92
12316 - Registered Nurse IV		69.43
12317 - Scheduler (Drug and Alcohol Testing)		40.91
12320 - Substance Abuse Treatment Counselor		32.30
13000 - Information And Arts Occupations		
13011 - Exhibits Specialist I		20.87
13012 - Exhibits Specialist II		25.85
13013 - Exhibits Specialist III		31.63
13041 - Illustrator I		20.87
13042 - Illustrator II		25.85
13043 - Illustrator III		31.63
13047 - Librarian		28.63
13050 - Library Aide/Clerk		20.33
13054 - Library Information Technology Systems Administrator		25.85
13058 - Library Technician		20.87
13061 - Media Specialist I		18.65
13062 - Media Specialist II		20.87
13063 - Media Specialist III		23.27
13071 - Photographer I		19.13
13072 - Photographer II		21.40
13073 - Photographer III		26.50
13074 - Photographer IV		32.41
13075 - Photographer V		39.22
13090 - Technical Order Library Clerk		25.53
13110 - Video Teleconference Technician		18.65
14000 - Information Technology Occupations		
14041 - Computer Operator I		16.54
14042 - Computer Operator II		18.51
14043 - Computer Operator III		20.64
14044 - Computer Operator IV		22.93
14045 - Computer Operator V		25.40
14071 - Computer Programmer I	(see 1)	25.41
14072 - Computer Programmer II	(see 1)	
14073 - Computer Programmer III	(see 1)	
14074 - Computer Programmer IV	(see 1)	

14101 - Computer Systems Analyst I	(see 1)	
14102 - Computer Systems Analyst II	(see 1)	
14103 - Computer Systems Analyst III	(see 1)	
14150 - Peripheral Equipment Operator		16.54
14160 - Personal Computer Support Technician		22.93
14170 - System Support Specialist		27.43
15000 - Instructional Occupations		
15010 - Aircrew Training Devices Instructor (Non-Rated)		33.17
15020 - Aircrew Training Devices Instructor (Rated)		40.13
15030 - Air Crew Training Devices Instructor (Pilot)		48.11
15050 - Computer Based Training Specialist / Instructor		33.17
15060 - Educational Technologist		28.85
15070 - Flight Instructor (Pilot)		48.11
15080 - Graphic Artist		24.70
15085 - Maintenance Test Pilot, Fixed, Jet/Prop		48.11
15086 - Maintenance Test Pilot, Rotary Wing		48.11
15088 - Non-Maintenance Test/Co-Pilot		48.11
15090 - Technical Instructor		24.93
15095 - Technical Instructor/Course Developer		30.50
15110 - Test Proctor		20.12
15120 - Tutor		20.12
16000 - Laundry, Dry-Cleaning, Pressing And Related Occupations		
16010 - Assembler		19.67
16030 - Counter Attendant		19.67
16040 - Dry Cleaner		22.50
16070 - Finisher, Flatwork, Machine		19.67
16090 - Presser, Hand		19.67
16110 - Presser, Machine, Drycleaning		19.67
16130 - Presser, Machine, Shirts		19.67
16160 - Presser, Machine, Wearing Apparel, Laundry		19.67
16190 - Sewing Machine Operator		23.44
16220 - Tailor		24.38
16250 - Washer, Machine		20.62
19000 - Machine Tool Operation And Repair Occupations		
19010 - Machine-Tool Operator (Tool Room)		27.23
19040 - Tool And Die Maker		34.18
21000 - Materials Handling And Packing Occupations		
21020 - Forklift Operator		20.80
21030 - Material Coordinator		25.82
21040 - Material Expediter		25.82
21050 - Material Handling Laborer		19.31
21071 - Order Filler		19.37
21080 - Production Line Worker (Food Processing)		20.80
21110 - Shipping Packer		20.74
21130 - Shipping/Receiving Clerk		20.74
21140 - Store Worker I		19.19
21150 - Stock Clerk		22.08
21210 - Tools And Parts Attendant		20.80
21410 - Warehouse Specialist		20.80
23000 - Mechanics And Maintenance And Repair Occupations		
23010 - Aerospace Structural Welder		32.94
23019 - Aircraft Logs and Records Technician		25.50
23021 - Aircraft Mechanic I		31.40
23022 - Aircraft Mechanic II		32.94
23023 - Aircraft Mechanic III		34.93
23040 - Aircraft Mechanic Helper		21.53
23050 - Aircraft, Painter		29.47
23060 - Aircraft Servicer		25.50
23070 - Aircraft Survival Flight Equipment Technician		29.47
23080 - Aircraft Worker		27.46
23091 - Aircrew Life Support Equipment (ALSE) Mechanic I		27.46
23092 - Aircrew Life Support Equipment (ALSE) Mechanic II		31.40
23110 - Appliance Mechanic		27.23
23120 - Bicycle Repairer		19.33
23125 - Cable Splicer		35.41
23130 - Carpenter, Maintenance		23.94
23140 - Carpet Layer		25.37
23160 - Electrician, Maintenance		28.36
23181 - Electronics Technician Maintenance I		25.37
23182 - Electronics Technician Maintenance II		27.23
23183 - Electronics Technician Maintenance III		29.01
23260 - Fabric Worker		23.56
23290 - Fire Alarm System Mechanic		29.01
23310 - Fire Extinguisher Repairer		21.74
23311 - Fuel Distribution System Mechanic		30.26
23312 - Fuel Distribution System Operator		22.65
23370 - General Maintenance Worker		21.73
23380 - Ground Support Equipment Mechanic		31.40
23381 - Ground Support Equipment Servicer		25.50
23382 - Ground Support Equipment Worker		27.46
23391 - Gunsmith I		21.74
23392 - Gunsmith II		25.37
23393 - Gunsmith III		29.01
23410 - Heating, Ventilation And Air-Conditioning Mechanic		25.47
23411 - Heating, Ventilation And Air Contidioning Mechanic (Research Facility)		26.72

23430 - Heavy Equipment Mechanic		29.20
23440 - Heavy Equipment Operator		28.77
23460 - Instrument Mechanic		29.01
23465 - Laboratory/Shelter Mechanic		27.23
23470 - Laborer		19.31
23510 - Locksmith		27.23
23530 - Machinery Maintenance Mechanic		31.92
23550 - Machinist, Maintenance		31.06
23580 - Maintenance Trades Helper		19.16
23591 - Metrology Technician I		29.01
23592 - Metrology Technician II		30.44
23593 - Metrology Technician III		32.28
23640 - Millwright		29.01
23710 - Office Appliance Repairer		27.23
23760 - Painter, Maintenance		22.31
23790 - Pipefitter, Maintenance		26.41
23810 - Plumber, Maintenance		24.78
23820 - Pneudraulic Systems Mechanic		29.01
23850 - Rigger		29.01
23870 - Scale Mechanic		25.37
23890 - Sheet-Metal Worker, Maintenance		29.01
23910 - Small Engine Mechanic		25.37
23931 - Telecommunications Mechanic I		35.65
23932 - Telecommunications Mechanic II		37.39
23950 - Telephone Lineman		29.01
23960 - Welder, Combination, Maintenance		25.11
23965 - Well Driller		29.01
23970 - Woodcraft Worker		29.01
23980 - Woodworker		21.74
24000 - Personal Needs Occupations		
24550 - Case Manager		19.52
24570 - Child Care Attendant		18.23
24580 - Child Care Center Clerk		22.73
24610 - Chore Aide		17.13
24620 - Family Readiness And Support Services Coordinator		19.52
24630 - Homemaker		19.52
25000 - Plant And System Operations Occupations		
25010 - Boiler Tender		27.66
25040 - Sewage Plant Operator		23.95
25070 - Stationary Engineer		27.66
25190 - Ventilation Equipment Tender		18.95
25210 - Water Treatment Plant Operator		23.95
27000 - Protective Service Occupations		
27004 - Alarm Monitor		25.13
27007 - Baggage Inspector		17.59
27008 - Corrections Officer		26.13
27010 - Court Security Officer		26.44
27030 - Detection Dog Handler		19.67
27040 - Detention Officer		26.13
27070 - Firefighter		26.76
27101 - Guard I		17.59
27102 - Guard II		19.67
27131 - Police Officer I		29.48
27132 - Police Officer II		32.76
28000 - Recreation Occupations		
28041 - Carnival Equipment Operator		17.41
28042 - Carnival Equipment Repairer		19.02
28043 - Carnival Worker		15.15
28210 - Gate Attendant/Gate Tender		21.44
28310 - Lifeguard		16.72
28350 - Park Attendant (Aide)		23.98
28510 - Recreation Aide/Health Facility Attendant		17.50
28515 - Recreation Specialist		29.70
28630 - Sports Official		19.10
28690 - Swimming Pool Operator		22.20
29000 - Stevedoring/Longshoremen Occupational Services		
29010 - Blocker And Bracer		25.37
29020 - Hatch Tender		25.37
29030 - Line Handler		25.37
29041 - Stevedore I		23.56
29042 - Stevedore II		27.23
30000 - Technical Occupations		
30010 - Air Traffic Control Specialist, Center (HFO)	(see 2)	46.07
30011 - Air Traffic Control Specialist, Station (HFO)	(see 2)	31.77
30012 - Air Traffic Control Specialist, Terminal (HFO)	(see 2)	34.99
30021 - Archeological Technician I		19.93
30022 - Archeological Technician II		22.29
30023 - Archeological Technician III		27.62
30030 - Cartographic Technician		27.62
30040 - Civil Engineering Technician		27.62
30051 - Cryogenic Technician I		30.59
30052 - Cryogenic Technician II		33.78
30061 - Drafter/CAD Operator I		19.93
30062 - Drafter/CAD Operator II		22.29
30063 - Drafter/CAD Operator III		24.85
30064 - Drafter/CAD Operator IV		30.59
30081 - Engineering Technician I		17.74
30082 - Engineering Technician II		19.93

30083 - Engineering Technician III		23.24
30084 - Engineering Technician IV		27.86
30085 - Engineering Technician V		33.78
30086 - Engineering Technician VI		40.87
30090 - Environmental Technician		27.62
30095 - Evidence Control Specialist		27.86
30210 - Laboratory Technician		25.21
30221 - Latent Fingerprint Technician I		31.88
30222 - Latent Fingerprint Technician II		35.20
30240 - Mathematical Technician		27.62
30361 - Paralegal/Legal Assistant I		21.19
30362 - Paralegal/Legal Assistant II		25.09
30363 - Paralegal/Legal Assistant III		30.64
30364 - Paralegal/Legal Assistant IV		37.15
30375 - Petroleum Supply Specialist		33.78
30390 - Photo-Optics Technician		27.62
30395 - Radiation Control Technician		33.78
30461 - Technical Writer I		27.62
30462 - Technical Writer II		33.78
30463 - Technical Writer III		40.87
30491 - Unexploded Ordnance (UXO) Technician I		29.28
30492 - Unexploded Ordnance (UXO) Technician II		35.43
30493 - Unexploded Ordnance (UXO) Technician III		42.46
30494 - Unexploded (UXO) Safety Escort		29.28
30495 - Unexploded (UXO) Sweep Personnel		29.28
30501 - Weather Forecaster I		30.59
30502 - Weather Forecaster II		37.20
30620 - Weather Observer, Combined Upper Air Or Surface Programs	(see 2)	24.85
30621 - Weather Observer, Senior	(see 2)	27.62
31000 - Transportation/Mobile Equipment Operation Occupations		
31010 - Airplane Pilot		35.43
31020 - Bus Aide		19.73
31030 - Bus Driver		26.72
31043 - Driver Courier		21.84
31260 - Parking and Lot Attendant		17.61
31290 - Shuttle Bus Driver		18.07
31310 - Taxi Driver		13.92
31361 - Truckdriver, Light		23.86
31362 - Truckdriver, Medium		25.86
31363 - Truckdriver, Heavy		24.46
31364 - Truckdriver, Tractor-Trailer		24.46
99000 - Miscellaneous Occupations		
99020 - Cabin Safety Specialist		17.27
99030 - Cashier		16.69
99050 - Desk Clerk		16.97
99095 - Embalmer		29.28
99130 - Flight Follower		29.28
99251 - Laboratory Animal Caretaker I		20.60
99252 - Laboratory Animal Caretaker II		24.53
99260 - Marketing Analyst		28.35
99310 - Mortician		29.28
99410 - Pest Controller		27.42
99510 - Photofinishing Worker		15.39
99710 - Recycling Laborer		21.12
99711 - Recycling Specialist		23.74
99730 - Refuse Collector		20.15
99810 - Sales Clerk		17.40
99820 - School Crossing Guard		20.15
99830 - Survey Party Chief		32.11
99831 - Surveying Aide		19.35
99832 - Surveying Technician		27.26
99840 - Vending Machine Attendant		21.12
99841 - Vending Machine Repairer		26.94
99842 - Vending Machine Repairer Helper		21.12

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors, applies to all contracts subject to the Service Contract Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is the victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Note: Executive Order 13658 generally applies to contracts subject to the Service Contract Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the cor
Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: $5.55 per hour, up to 40 hours per week, or $222.00 per week or $962.00 per month

HEALTH & WELFARE EO 13706: $5.09 per hour, up to 40 hours per week, or $203.60 per week, or $882.27 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706, Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor, 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of eleven paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

THE OCCUPATIONS WHICH HAVE NUMBERED FOOTNOTES IN PARENTHESES RECEIVE THE FOLLOWING:

1) COMPUTER EMPLOYEES: This wage determination does not apply to any individual employed in a bona fide executive, administrative, or professional capacity, as defined in 29 C.F.R. Part 541. (See 41 C.F.R. 6701(3)). Because most Computer Systems Analysts and Computer Programmers who are paid at least $27.63 per hour (or at least $684 per week if paid on a salary or fee basis) likely qualify as exempt computer professionals under 29 U.S.C. 213(a)(1) and 29 U.S.C. 213(a)(17), this wage determination may not include wage rates for all occupations within those job families. In such instances, a conformance will be necessary if there are nonexempt employees in these job families working on the contract.

Job titles vary widely and change quickly in the computer industry, and are not determinative of whether an employee is an exempt computer professional. To be exempt, computer employees who satisfy the compensation requirements must also have a primary duty that consists of:

(1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;

(2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;

(3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or

(4) A combination of the aforementioned duties, the performance of which requires the same level of skills. (29 C.F.R. 541.400).

Any computer employee who meets the applicable compensation requirements and the above duties test qualifies as an exempt computer professional under both section 13(a)(1) and section 13(a)(17) of the Fair Labor Standards Act. (Field Assistance Bulletin No. 2006-3 (Dec. 14, 2006)). Accordingly, this wage determination will not apply to any exempt computer employee regardless of which of these two exemptions is utilized.

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

** HAZARDOUS PAY DIFFERENTIAL **

An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving re-grading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage

determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of """"wash and wear"""" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the """"Service Contract Act Directory of Occupations"""", Fifth Edition (Revision 1), dated September 2015, unless otherwise indicated.

** REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE, Standard Form 1444 (SF-1444) **

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits which shall be paid to all employees performing in the classification from the first day of work on which contract work is performed by them in the classification. Failure to pay such unlisted employees the compensation agreed upon by the interested parties and/or fully determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract. (See 29 CFR 4.6(b)(2)(v)). When multiple wage determinations are included in a contract, a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award, the contractor prepares a written report listing in order the proposed classification title(s), a Federal grade equivalency (FGE) for each proposed classification(s), job description(s), and rationale for proposed wage rate(s), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the U.S. Department of Labor, Wage and Hour Division, for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour Division's decision to the contractor.

6) Each affected employee shall be furnished by the contractor with a written copy of such determination or it shall be posted as a part of the wage determination (See 29 CFR 4.6(b)(2)(iii)).

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request, the """"Service Contract Act Directory of Occupations"""" should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination (See 29 CFR 4.152(c)(1))."""