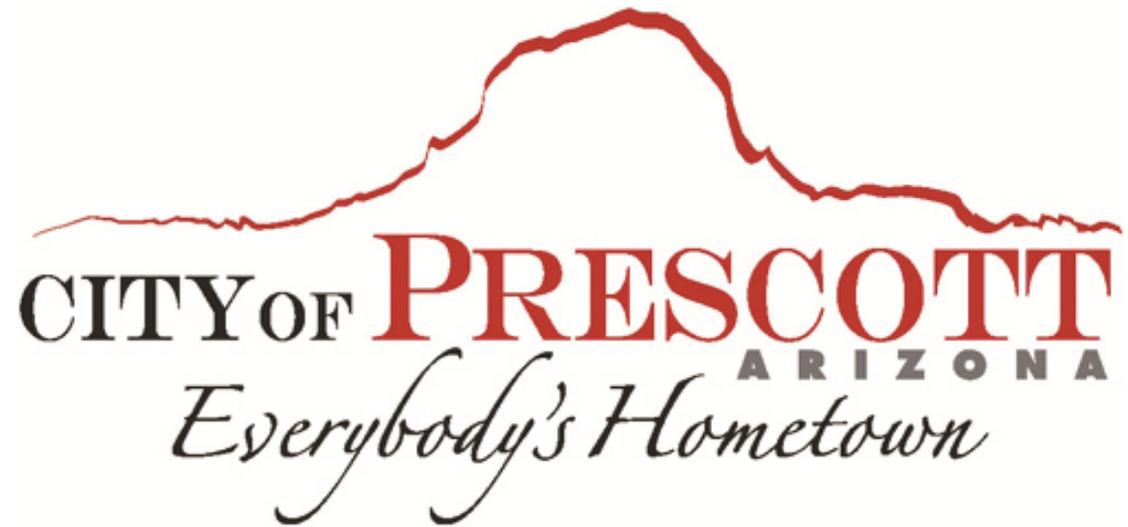


**CONSTRUCTION
&
POST-CONSTRUCTION
TRAINING**

JUNE 2017

PART I - CONSTRUCTION

- CGP Overview
- BMP's
- Ordinance
- Construction Inventory
- Inspection Procedures
- Inspection Frequency
- Operator Education
- Unpermitted Discharges



CONSTRUCTION GENERAL PERMIT

The AZPDES CGP requires:

- An ATD (issued by ADEQ)
- Contractor to file a NOT at the end of construction
- SWPPP submittal if within 1/4 mile of an impaired water.
- Contractors to develop and implement SWPPPs and submit NOIs to ADEQ
- SWPPP implementation includes installing and maintaining BMPs, performing inspections, recordkeeping, annual reporting, and sometimes analytical monitoring if w/in 1/4 mile
- Any site 1 acre or more or part of a larger construction plan – submit to the City of Prescott

*These elements are all performed
BY THE CONTRACTOR*

CGP APPLICABILITY

- A qualified professional will prepare and review CGP documents
- A qualified person is:
A person knowledgeable in principles and practice of erosion and sediment controls and pollution prevention, who possess the skills to assess stormwater discharge will review the documents

 ADEQ Arizona Department of Environmental Quality	NOTICE OF INTENT (NOI) for Construction Activity Discharges to Waters of the United States under the AZPDES Stormwater Construction General Permit (AZG2013-001)
FOR COVERAGE, A COMPLETE AND ACCURATE NOI (INCLUDING REQUIRED FEE) MUST BE SUBMITTED TO: Arizona Department of Environmental Quality, Surface Water Section / Stormwater and General Permits Unit 1110 West Washington Street, 5415A-1, Phoenix, Arizona 85007	
Is this NOI a revision to a project filed under the 2013 AZPDES Stormwater Construction General Permit? <input type="checkbox"/> YES <input type="checkbox"/> NO If Yes, complete the following: <ul style="list-style-type: none">➤ Provide your current authorization number: AZCON - _____➤ Provide the name of the project / site in Part II below. You do not need to complete the entire form. Provide only the information that is being changed from the original NOI.➤ Complete the certification in Part VI (including signature of authorized signer).	(ADEQ Use Only) Authorization Number: Is the site located on Indian Country Lands? <input type="checkbox"/> YES <input type="checkbox"/> NO
I. OPERATOR (Applicant) INFORMATION: <ul style="list-style-type: none">➤ Contact Name: _____ Phone Number: _____➤ E-mail address: _____ Fax Number: _____➤ Operator's Business Name: _____➤ Operator's Mailing Address: _____➤ City: _____ State: _____ Zip Code: _____➤ Business Status: Federal: <input type="checkbox"/> State: <input type="checkbox"/> Other Public: <input type="checkbox"/> Private: <input type="checkbox"/> Other: _____	
II. CONSTRUCTION ACTIVITY INFORMATION: <ul style="list-style-type: none">➤ Project/Site Name: _____➤ Site physical location (Provide address. If no address, provide driving directions from nearest municipality): _____ _____➤ City: _____ State: AZ Zip Code: _____ County: _____➤ County Parcel No. (at main entrance): _____ Phone Number: _____➤ Type of Project (subdivision, commercial, road, pipeline, utility, ADOT project, etc.): _____	

IMPORTANT BEST MANAGEMENT PRACTICES

- Common construction BMPs include:
 - Erosion Control (straw wattles, gravel/ straw mulch, erosion control blankets)
 - Drainage System Inspections and Maintenance (grates, straw wattles)
 - Sediment Control (silt fences, gravel bags, trackout pads)



EROSION CONTROL

- Erosion is the process of sediment being picked up and moved away (usually by water or wind)
- One can reduce erosion by implementing the following precautions:
 - Straw wattles on a sloped surface
 - Erosion control blankets
 - Straw or gravel mulch



SEDIMENT CONTROL

- Sediment is the soil that is picked up, moved and deposited elsewhere by erosion
- Reduce sediment transport by implementing:
 - Perimeter control
 - Set backs
 - Trackout pads



DRAINAGE SYSTEM INSPECTION AND MAINTENANCE

- Drainage system inspection/ maintenance deals with new or existing drainage systems on site during construction
- On-site drainage systems include:
 - Filter fabric
 - Temporary channels
 - Straw wattles



CITY ORDINANCE

- Section 16-4-1: Adoption of the construction site erosion and sediment control regulations code
- “During the construction process, soil is highly vulnerable to erosion by wind and water. **Eroded soil, which can become contaminated, by oils, solvents, and debris from the construction activity, may endanger water resources by reducing water quality** and causing the saltation of aquatic habitat for fish and other desirable species. Eroded soil also necessitates repair of sewers and ditches and the dredging of lakes. In addition, clearing and grading during construction can cause the loss of native vegetation necessary for terrestrial and aquatic habitat, as well as soil stabilization.”

CONSTRUCTION INVENTORY

- Accela is used to maintain an inventory of all construction sites that disturb 1 acre or more (or are part of a larger plan of development)
- The inventory must be searchable by property address
- The inventory must be updated regularly and made available to ADEQ for review

INSPECTION PROCEDURES

- Inspections are performed by the *Public Works Department*
- The City inspects construction sites a **minimum of one time during the active phase of construction** and maintains electronic or hard copy records for a minimum of 3 years
- If a non-compliance is identified during the inspection, the inspector will notify the permittee and **re-inspect within 7 days**



Contractor:		Project Number:	
Project Name			
Location			
Date of Inspection		Start Time:	End Time:
Describe present phase of construction			
Weather Information			
Weather at time of inspection?			
Do you suspect that discharges may have occurred?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Are there any discharges at the time of inspection?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, provide location(s) and a description of stormwater discharged from the site (presence of suspended sediment, turbid water, discoloration, and/or oil sheen)			
Non-Stormwater Discharges			
Identify all non-stormwater discharges (i.e. water, other than stormwater, directed to a watercourse, storm drain, or off of the construction site):			

INSPECTION CHECKLIST

BMP/Activity	Implemented	Compliance Issue #
Are perimeter controls and sediment barriers adequately installed and maintained?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are discharge points and receiving waters free of sediment deposits?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are storm drain inlets properly protected?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Is there evidence of sediment being tracked into the street?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Is trash/litter from work areas collected and placed in dumpsters?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are vehicle and equipment fueling, cleaning, material storage, and maintenance areas free of spills, leaks, or any other harmful material?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are materials that are potential stormwater contaminants stored inside or under cover, where practicable?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are non-stormwater discharges (e.g., wash water, dewatering) properly controlled?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are there locations where additional BMPs are necessary?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Are changes to the SWPPP necessary?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Other issues noted?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	

If there were no incidents of noncompliance noted during the inspection the Inspector certifies that the construction project or site is being operated in compliance with the City's SWMP and Permit No. AZG2016-002.

NOTED COMPLIANCE ISSUES

#	Issue	Corrective Action

Certification statement:
 "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Inspector Name: _____ Date: _____

Signature: _____

INSPECTION FREQUENCY



When determining when to inspect a site, consider:

- Phase of construction
- Proximity to bodies of water
- Size of construction activity/
acreage disturbed
- Operator's history

OPERATOR EDUCATION



- The MS4 Permit requires the City to provide education to contractors.
- Education is offered through:
 - Lunch and learn presentations
 - Brochures
 - Inspections
 - Tailgate Meetings

UNPERMITTED DISCHARGES

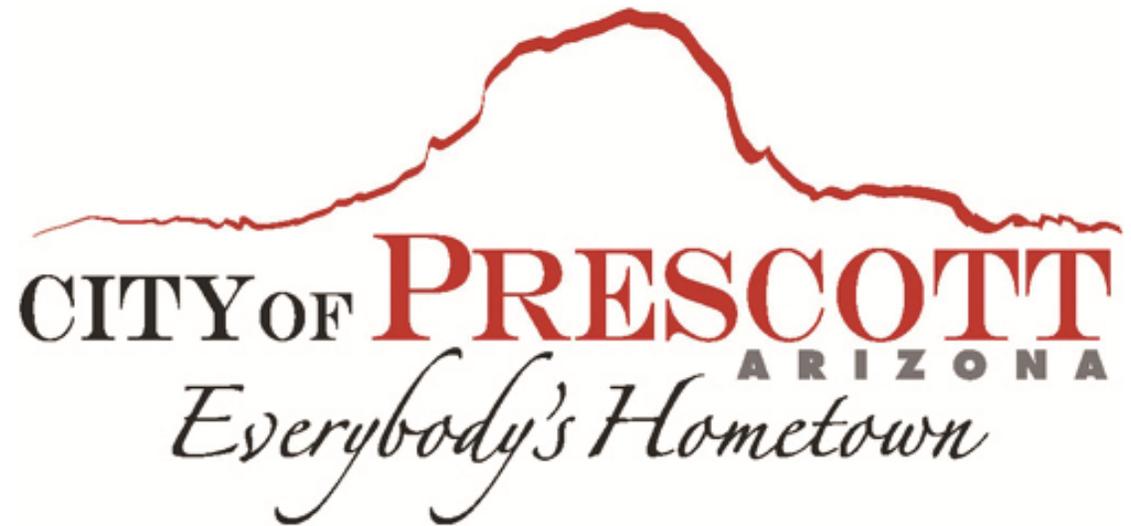
- Identify construction sites operating without CGP coverage
- City will cross-reference the list of businesses using ADEQ's MegaSearch database;

(<http://megasearch.azdeq.gov/megasearch/>)



PART 2 - POST-CONSTRUCTION

- Important BMPs
- Ordinance
- Stormwater Control Inventory
- Site Plan Review Procedures
- Inspections



IMPORTANT BEST MANAGEMENT PRACTICES

- Some important post-construction BMPs include:
 - Basins and headwalls
 - Culverts
 - Catch basins
 - Spillways
 - Washes and waterways



BASINS AND HEADWALLS

- Use grate to cover and protect pipe opening
- Remove sediment and trash trapped behind or in front of grate
- Conduct quarterly inspection (especially during wet seasons)
- Keep an annual stormwater basin maintenance schedule and retain records for 5 years



CULVERTS

- Clean out sediment, trash and debris trapped in or near culvert opening
- Properly dispose of debris removed
- Maintain slopes and opening size of ditch leading to and from culvert



CATCH BASINS

- Remove sediment, trash and debris near inlet, on the surface, to allow water to flow into catch basins
- Eliminate foul odors by removing dead animals and vegetation that may accumulate
- Repair cracks larger than 1/2 inch wide or 12 or more inches long with concrete grout or sealant



DRY WASHES AND WATERWAYS

- Keep washes free of overgrown vegetation, sediment and trash
- Report and illegal dumping of bulk trash to the City
- Keep river rock grouped together in the channel bottom to maintain the channels natural shape



CITY ORDINANCE

- Section 16-6-1: Adoption of the 2007 City of Prescott Post Construction Stormwater Runoff Code
- “The purpose of this ordinance is to establish minimum stormwater management requirements and controls to **protect and safeguard the general health, safety, and welfare of the public** residing in watersheds within this jurisdiction. This ordinance seeks to meet the purpose through the various measurable objectives.”

STORMWATER CONTROL INVENTORY

- Post-Construction BMPs are inventoried in GIS and Lucity
- Contractors deliver site as-built plans to the city prior to final permit issuance
- The as-built plans are then digitized by the City's GIS department



SITE PLAN REVIEW PROCEDURES

- *Public Works* is responsible for reviewing site plans
- An inspector reviews post-construction BMPs for proper compliance and accuracy and conducts field verification as needed
- If installed BMPs are insufficient, final permit issuance will be withheld until corrected



INSPECTIONS

- The city performs inspections on development sites to ensure compliance with the stormwater ordinance and Land Development Code
- Inspections are conducted throughout construction and post-construction periods
- A final inspection is necessary to ensure development has been built to specifications

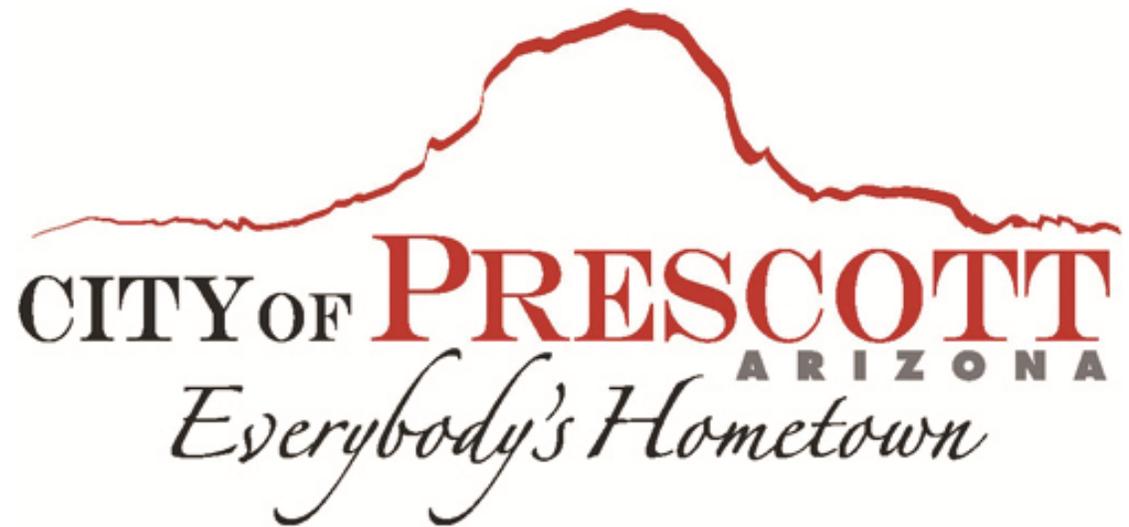
POST-CONSTRUCTION INSPECTION FORM

Inspector Information					
Name:		Date:			
Title:		Time In:			
Phone:		Time Out:			
Facility Information					
Development/Facility Name					
Owner Name					
Owner Phone #					
Address or Location					
Parcel or Section #					
Post-Construction BMPs					
BMP Type	BMP Installed and Operating Properly?		Corrective Action Needed:	Date for Corrective Action	Date Corrective Action was Completed:
	Yes	No			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			
	<input type="checkbox"/>	<input type="checkbox"/>			

- Complete both inspection sheets with all necessary required information
- Use legible handwriting
- Document needed follow-up activities

PART 3 - GENERAL INFORMATION

- Recordkeeping
- Documentation
- Enforcement
- EPR Breakdown
- Sample Field Equipment and PPE List
- Health and Safety Concerns



RECORDKEEPING

- The City will keep any records pertaining to the Permit for a minimum of 3 years
- This includes:
 - Reports
 - Inspection Records
 - Enforcement Actions
 - Follow-up Documentation



WHY DOCUMENT?

Each year an annual report must be prepared.

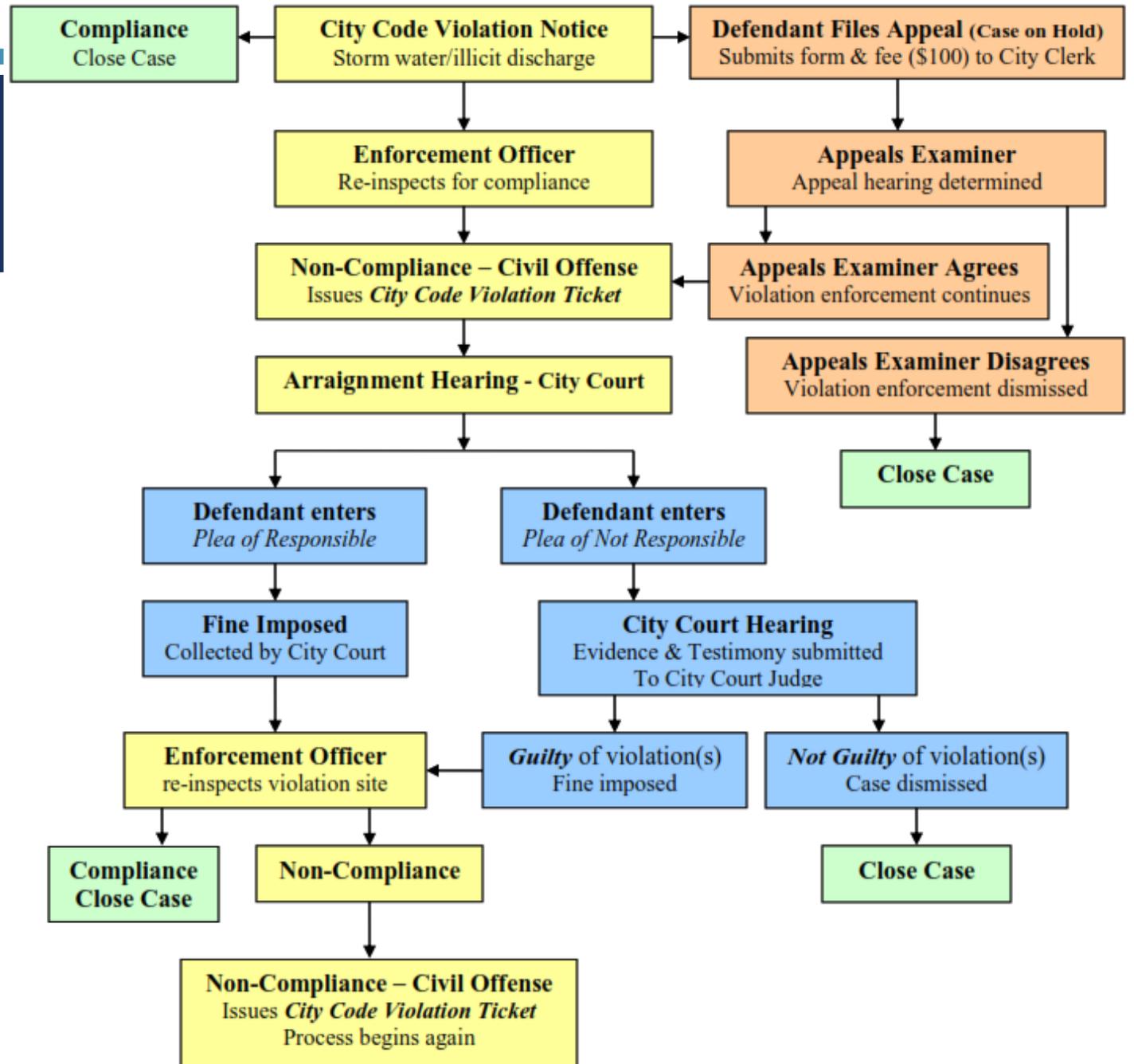
Annual report contains numeric and narrative descriptions of MS4 activities including:

- Number of inspections
- Results of enforcement measures
- Number of operators educated
- Names and locations of potential non-filers

ENFORCEMENT

- The City has legal authority to fully implement the SWMP including the right to prohibit illicit discharges to the MS4, conduct inspections, and carry out necessary enforcement procedures.
- The City applies the following enforcement measures:
 1. A verbal warning.
 2. Violation Notice.
 3. City Code Violation Ticket.
 4. Liable party has the right to appeal the ticket.

ERP PROCESS



SAMPLE FIELD EQUIPMENT AND PPE LIST

- Camera
- Handheld GPS
- Clipboards
- Tape measure
- Field Sheets
- Traffic cones
- First Aid Kit
- Storm drain and street maps
- Flashlight or spotlight
- Waterproof marker/pen
- Reflective safety vests
- Spray paint
- Rubber/latex gloves

Always ask if there are any site-specific safety equipment needed when entering a new site!



HEALTH AND SAFETY CONCERNS

- If evidence of a health or safety issue exists....Stop the inspection!
- Notify the fire department, hazmat team, and then your supervisor.

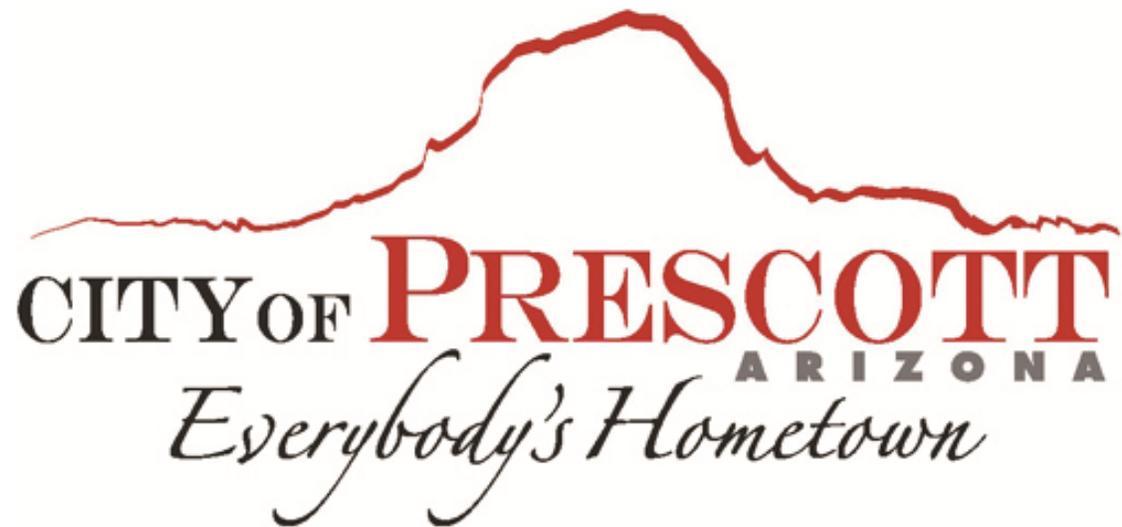


QUIZ QUESTIONS

1. What are some important BMP's to implement in Construction?
2. Important BMP's in Post-Construction?
3. What are some factors to consider when planning for inspection frequency?
4. Who is qualified to review site plans?
5. What are some AZPDES CGP requirements?

QUESTIONS/COMMENTS?

Any questions or concerns...



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