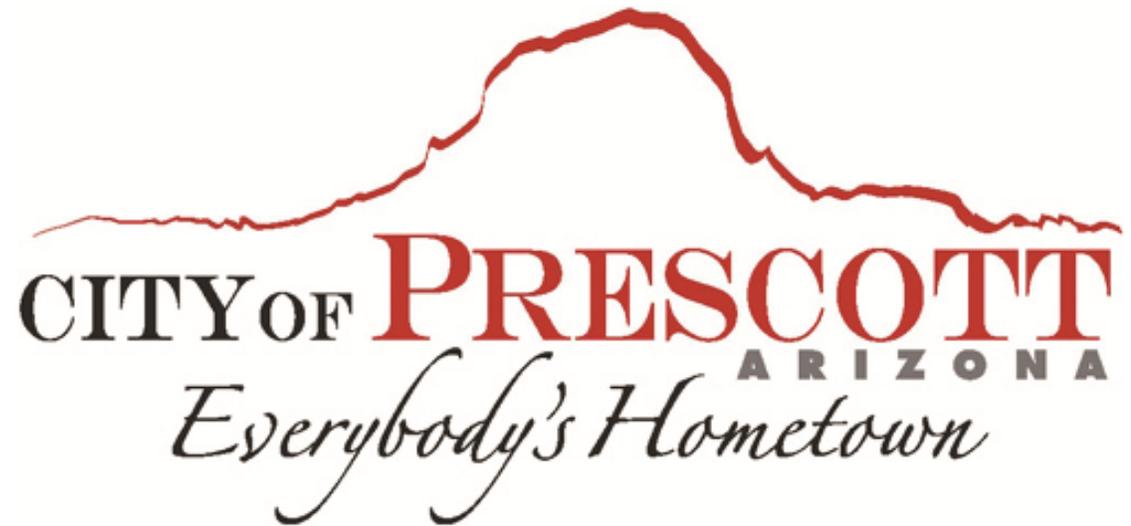


ILLICIT DISCHARGE DETECTION & ELIMINATION (IDDE) TRAINING

JUNE 2017

IDDE AGENDA

- Ordinance
- Visual outfall monitoring
- Illicit discharge identification, investigation, and elimination
- Reporting
- Enforcement



WHAT IS THE IDDE PROGRAM?

- **IDDE is just one program element described in the SWMP**
- **Illicit discharge detection and elimination** is a comprehensive program that assists the city in detecting, identifying, isolating, regulating, and eliminating illicit discharges.



STORMWATER ORDINANCE

- The City of Prescott Ordinance
- Section 16-5-1: Adoption of 2007 City of Prescott Illegal Discharge and Illegal Connection Stormwater Code
- Section 16-5-2: Penalty – Criminal
- Section 16-5-3: Penalty - Civil
- *“The purpose of this code is to **provide for the health, safety, and general welfare of the citizens** of the City of Prescott through the regulation of non-stormwater discharges to the storm drainage system to the maximum extent practicable as required by federal and state law.”*

CITY'S IDDE PROGRAM ELEMENTS

Public Works
Department

Eliminating
Illicit
Discharges

Dry Weather
Screening

Wet Weather
Monitoring

Unpermitted
Discharges



ILLICIT DISCHARGE IDENTIFICATION / SCREENING

- Illicit Discharge Investigations may be initiated through illicit discharge reports or dry and wet weather screenings
- Wet weather monitoring (2 times per wet season)
 - Summer wet season (June 1st – October 31st)
 - Winter wet season (November 1st – May 31st)
- Dry weather screening
 - To be completed during dry periods at least 72 hours after a rain event

ILLICIT DISCHARGE INVESTIGATION METHODS

- Above ground tracking – track discharge upstream until you locate the source
- Below ground tracking – review maps, gis, as-builts, etc.
 - Manhole inspection
 - Dye testing
 - Smoke testing
 - CCTV



ILLICIT DISCHARGE INVESTIGATION

WHO DONE IT?



- Initiate source tracking
- Indicate the potential source
- Use information from the field analysis to help identify the suspected source

TRACKING ILLICIT DISCHARGES/ CONNECTIONS

- Source related
 - Periodic in nature, time of day, one-time discharges
- Program related
 - Mapping, limited resources, task prioritization
- Infrastructure related
 - Access, complexity of system, multi-sources



IDDE INVESTIGATION/ INSPECTION FORM

- It is up to YOU to properly document and file any illicit discharges
- The illicit discharge will be traced back to the source and eliminated
- The form is easy to fill out (only 4 sections composed of 2 pages)

Section 1: Background Data

Outfall ID:	Date:	Time:
Inspector/Investigator:		
Inspection/Investigation Type: (Pick One)		
<input type="checkbox"/> Dry Weather Inspection <input type="checkbox"/> IDDE Investigation <input type="checkbox"/> 3-Day Follow-up Inspection <input type="checkbox"/> Visual Assessment (If so, check sampling description boxes below) <input type="checkbox"/> Sampling Event #1 <input type="checkbox"/> Sampling Event #2 <input type="checkbox"/> Summer Wet Season (6/1 - 10/1) <input type="checkbox"/> Winter Wet Season (11/1 - 5/31)		
Photos? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, append photos to this report.		
Precipitation w/in last 72 hours? <input type="checkbox"/> Yes <input type="checkbox"/> No Approximate Rainfall (in) _____		Weather (approx. temp, etc.):
Land Use in Drainage Area (check all that apply):		<input type="checkbox"/> Open Space
<input type="checkbox"/> Industrial <input type="checkbox"/> Residential <input type="checkbox"/> Commercial		Other: _____ Known Industries: _____

Record all background data associated with the sampling event

Section 2: Physical Indicators

INDICATOR	DESCRIPTION	COMMENTS
Outfall Damage	<input type="checkbox"/> None <input type="checkbox"/> Spalling, Cracking or Chipping <input type="checkbox"/> Peeling Paint <input type="checkbox"/> Corrosion <input type="checkbox"/> Other: _____	
Deposits / Stains	<input type="checkbox"/> None <input type="checkbox"/> Oily <input type="checkbox"/> Flow Line <input type="checkbox"/> Paint <input type="checkbox"/> Other: _____	
Abnormal Vegetation	<input type="checkbox"/> None <input type="checkbox"/> Excessive <input type="checkbox"/> Inhibited	
Poor Water Quality	<input type="checkbox"/> None <input type="checkbox"/> Odors <input type="checkbox"/> Colors <input type="checkbox"/> Floatables <input type="checkbox"/> Oil Sheen <input type="checkbox"/> Suds <input type="checkbox"/> Excessive Algae <input type="checkbox"/> Other: _____	
Pipe Algae Growth	<input type="checkbox"/> None <input type="checkbox"/> Brown <input type="checkbox"/> Orange <input type="checkbox"/> Green <input type="checkbox"/> Other: _____	
Do physical indicators suggest an illicit discharge has occurred? <input type="checkbox"/> No <input type="checkbox"/> Yes		
Flow Present?	<input type="checkbox"/> Yes If yes, describe: <input type="checkbox"/> Trickle <input type="checkbox"/> Moderate <input type="checkbox"/> Substantial And go to Section 3. <input type="checkbox"/> No If no flow and no physical indicators, skip to Section 4 and close investigation. If no flow but physical indicators are present, skip to Section 4 and schedule 3-Day Follow-Up.	

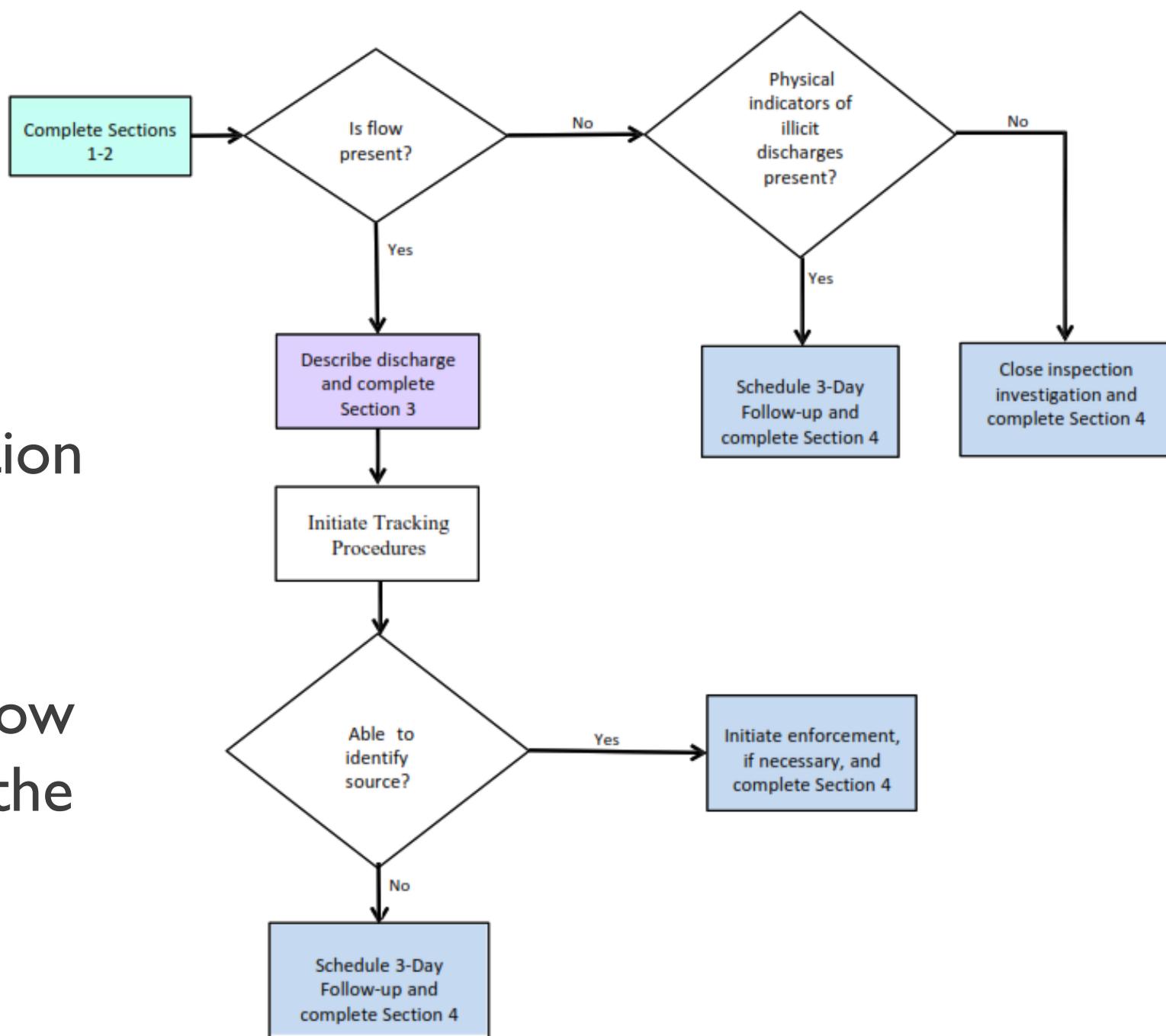
Document physical condition of the outfall

DRY WEATHER SCREENING

- City will inspect 20% of outfalls
- Investigate potential facility discharge and re-inspect to ensure no additional discharge is present
- Follow IDDE Investigation Form and SOP documented in the SWMP

DRY WEATHER SCREENING

- The discharge investigation process goes through a series of steps.
- Colors in the process flow diagram correlate with the sections of the IDDE inspection form.



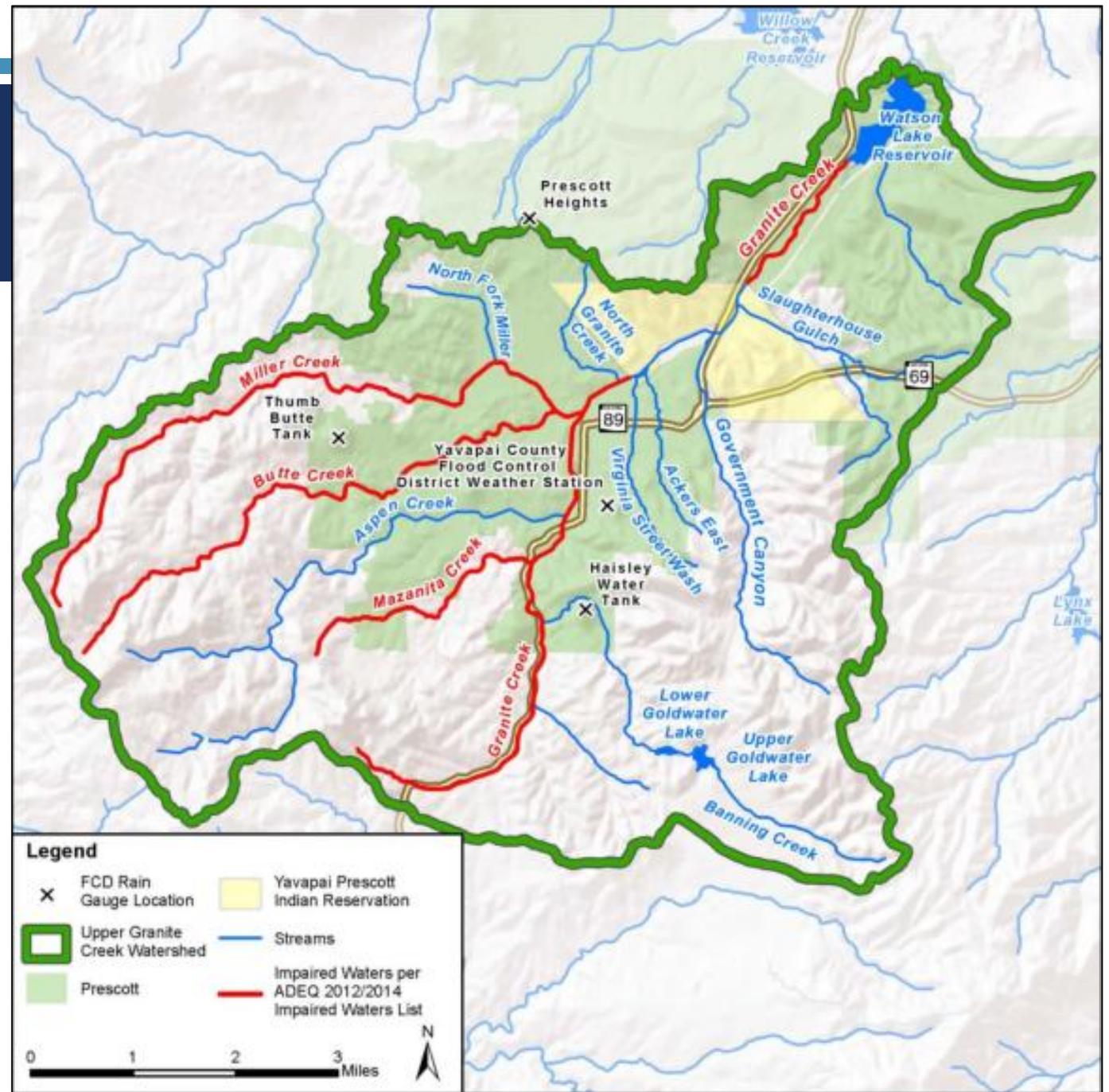
WET WEATHER MONITORING

- Inspect 2 outfalls per impaired water, 2 times per wet season
 - Summer Wet Season (June 1st – October 31st)
 - Winter Wet Season (November 1st – May 31st)
- Follow IDDE Investigation Form and SOP

WATERSHED

2016 Impaired or Non-attaining waters include:

- Miller Creek
- Butte Creek
- Manzanita Creek
- **Granite Creek**
- North Fork of Granite Creek
- North Fork of Miller Creek
- Aspen Creek
- Virginia Street Wash
- Yavapai College Wash
- Government Canyon Wash
- Slaughterhouse Gulch
- Banning Creek
- **Willow Creek Reservoir**
- Watson Lake Reservoir



QUALITATIVE SCREENING

Collect samples in a clear, clean container.

Characterize sample:

- Color
- Odor
- Turbidity
- Floatables
- Sediment
- Oil sheen



QUANTITATIVE SCREENING

- Measure flow rate and conduct field screening analysis (when/if appropriate)
- Analytes (vary by investigation)
 - Temperature
 - pH
 - Dissolved Oxygen
 - Copper
 - Chlorine
 - Detergents
 - Organic Substances



UNPERMITTED DISCHARGES

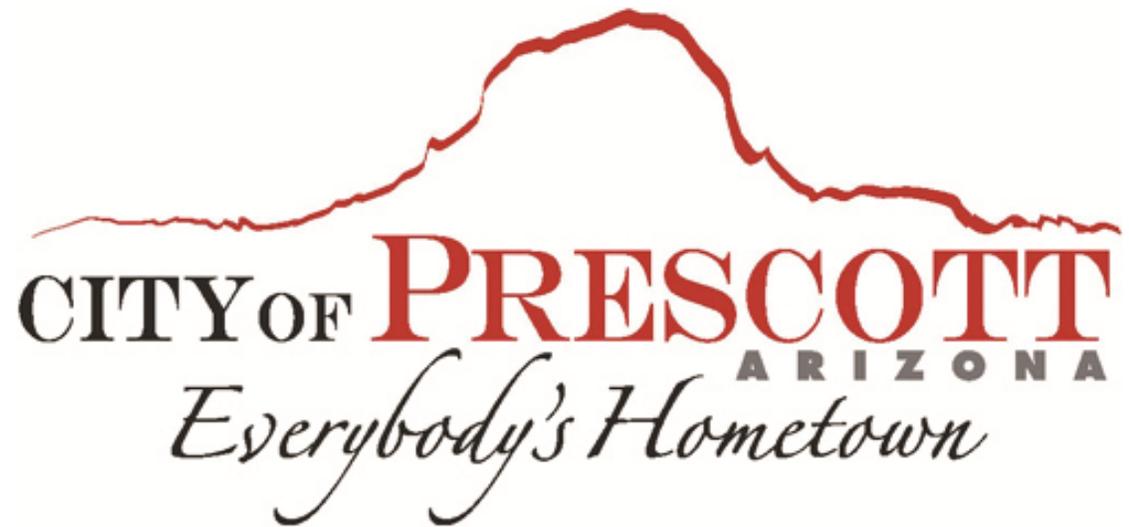
- Identify construction sites operating without CGP coverage
- City will cross-reference the list of businesses using ADEQ's MegaSearch database;

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



GENERAL INFORMATION

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



RECORDKEEPING

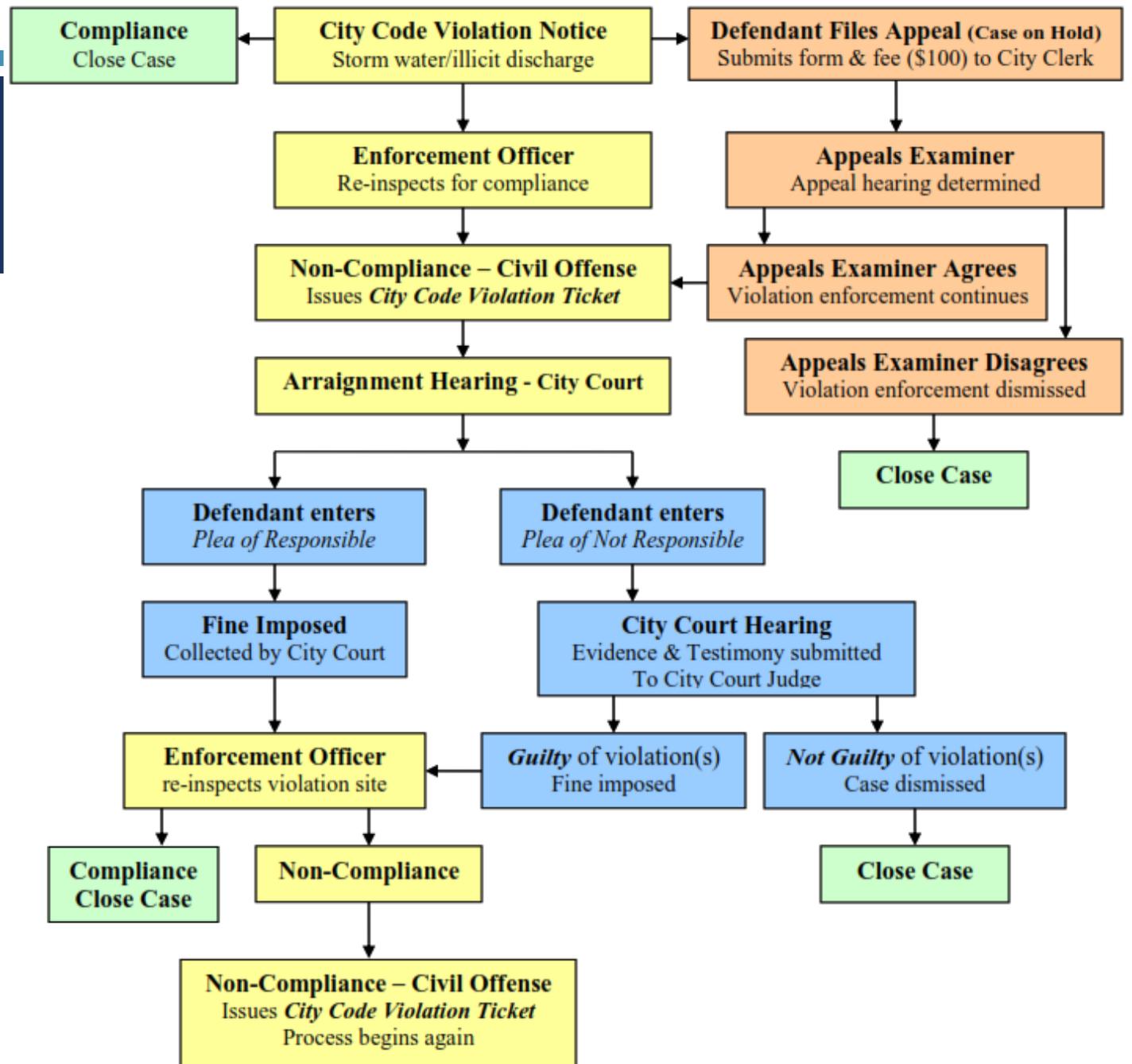
- The City will keep any records pertaining to the Permit for a minimum of 3 years
- This includes:
 - Reports
 - Inspection Records
 - Enforcement Actions
 - Follow-up Documentation



ILLICIT DISCHARGE 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 BREAKDOWN



SAMPLE FIELD EQUIPMENT AND PPE LIST

- Camera
- Handheld GPS
- Hook/Crowbar
- Clipboards
- Tape measure
- Mirror
- Field Sheets
- Traffic cones
- Reflective safety vests
- First Aid Kit
- Storm drain and street maps
- Flashlight or spotlight
- Waterproof marker/pen
- Gas monitor or probe
- Sledgehammer
- Two-way radios
- Spray paint
- Rubber/latex gloves
- Manhole



HEALTH AND SAFETY CONCERNS

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

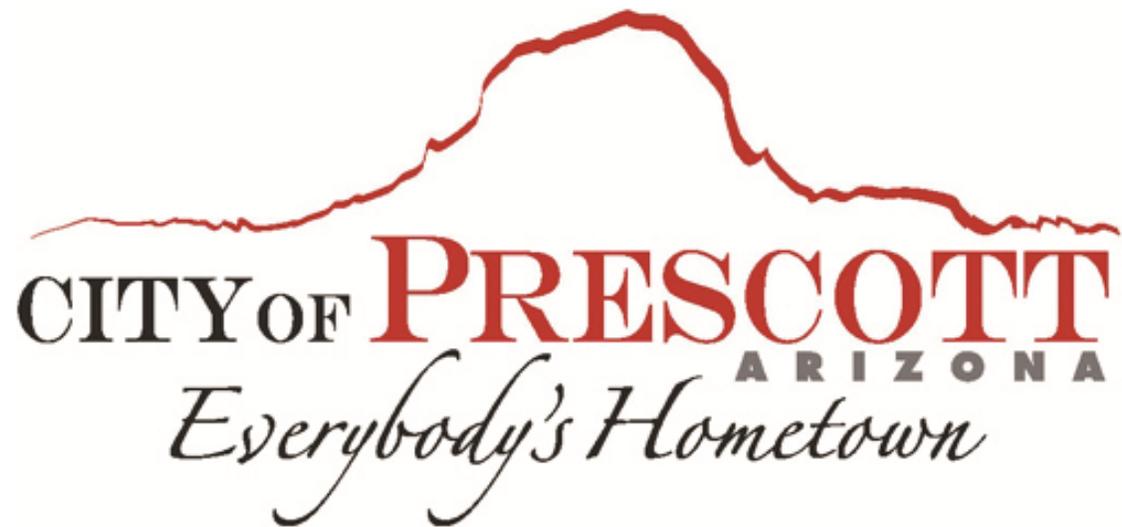


QUIZ QUESTIONS

1. What do you do if you see an illicit discharge?
2. What is the purpose of IDDE Screening?
3. Why is it important to document all illicit discharges properly?
4. What are some qualitative screening indicators to look for?
5. What are some quantitative screening indicators to measure (when needed)?

QUESTIONS/COMMENTS?

Any questions or concerns...



Matt Killeen
Environmental Coordinator
matthew.killeen@prescott-az.gov
928-777-1130