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# Module 2

Guidance for the VSMP Inspector  
(Conducting Effective Inspections)





# Preparation

- Inspection schedule
  - Inspection frequency and/or type
- Consent for entry
  - Advanced notification is helpful



# Preparation (Construction Inspection)

- Review:
  - Past inspection reports
  - Photos
  - Compliance recommendations
  - TMDL requirements

# Helpful Hint!



Stormwater Best Management Practice

## Concrete Washout



Carry copies of the EPA Fact Sheet, Stormwater Best Management Practice - Concrete Washout  
[www.epa.gov/npdes/pubs/concretewashout.pdf](http://www.epa.gov/npdes/pubs/concretewashout.pdf)

### Description of Concrete Washout at Construction Sites

#### Concrete and its ingredients

Concrete is a mixture of cement, water, and aggregate material. Portland cement is made by heating a mixture of limestone and clay containing oxides of calcium, aluminum, silicon and other metals in a kiln and then pulverizing the resulting clinker. The fine aggregate particles are usually sand. Coarse aggregate is generally gravel or crushed stone. When cement is mixed with water, a chemical reaction called hydration occurs, which produces glue that binds the aggregates together to make concrete.

#### Concrete washout

After concrete is poured at a construction site, the chutes of ready mixed concrete trucks and hoppers of concrete pump trucks must be washed out to remove the remaining concrete before it hardens. Equipment such as wheelbarrows and hand tools also need to be washed down. At the end of each work day, the drums of concrete trucks must be washed out. This is customarily done at the ready mixed batch plants, which are

washed out into a roll-off bin, which isn't watertight. Leaking washwater, shown in the foreground, will likely follow similar



Figure 1. Chute washwater being dumped on the ground



Figure 2. Chute washwater leaking from a roll-off bin being used as a washout container

paths to nearby surface waters. Rainfall may cause concrete washout containers that are uncovered to overflow and also transport the washwater to surface waters. Rainwater polluted with concrete washwater can percolate down through the

## Post-construction inspections

Owner's self-inspection reports

Reports submitted to VSMP authority

Long-term maintenance provisions or SOPs used by owner but not in maintenance agreement should be documented and evaluated in accordance with local requirements

# Use Safety Equipment

PG 4

- Hard hat
- Reflective vest
- Steel-toe shoes
- Other safety equipment:  
safety glasses, hearing protection, ANSI  
107-2010 class 3 safety garments, etc.



# Maintain Safety Equipment

**PG 4**

- Good condition
- Proper working order



- Special training may be required prior to entering site
- Review Material Safety Data Sheets (MSDS)
- Consult with the site operator, OSHA or DEQ



- Look out for walking hazards
  - Vehicles, ditches, uneven or unstable ground, loose material



- Overhead hazards
- Blasting operations
- Biological hazards
  - Plants, insects, poisonous snakes



# Training Needed for Confined Spaces **PG 4**

- Dangerous!
- Special training and equipment required
- Trench excavations greater than 5 ft require OSHA H&S guidelines for safe construction practices



Keep manager or colleagues informed

Use notification  
and tracking  
system





## Site Entry

- VSMP authority has right of entry during construction activities
- Consent may be granted in advance or upon arrival
- Imminent threat to public health or environment may require more immediate actions (notify other authorities)

# “Open Field Investigation”

- Observations can be made from places open to the public





## Helpful Tips

- Enter through main entrance
- Introduce yourself, provide identification and explain purpose
- Ask to speak with person in charge
- Provide inspection overview
  - Sequence of events





## Helpful Tips

- Speak clearly
- Ask one question at a time and wait for response
- Limit “yes” or “no” questions





## Helpful Tips

- Listen carefully and actively
- Repeat or rephrase for verification
- Document interview
  - Who said what
  - Summarize and verify important details



## SWPPP components

Permit

Registration  
statements

Self-inspection  
reports

## Review details

Date

ESCs

Insp/Maint. Records

P2 practices

Storm event ID

Critical areas

Drainage areas

Outfalls

Offsite areas

## SWPPP review

General narrative

Operator verification:

Project size and duration

Potential pollutants (hazardous materials, refueling?)

TMDL measures

ESC maintenance records

Monitoring or other reports if required

# Inspection Type

## Comprehensive

- ▶ Neutral and random
- ▶ Address phasing

## Reconnaissance

- ▶ Respond to:
  - Complaints
  - Unauthorized discharges
  - Known/suspected violations
  - Follow-ups

# Inspection Type

## Comprehensive

- ▶ Verify compliance:
  - Regulations
  - Effluent controls
  - Compliance schedules
  - Long-term maintenance provisions

## Reconnaissance

- ▶ Expands inspection coverage without overwhelming inspection resources

# Pre-construction meeting

- Valuable Tool:
  - Review construction schedule
  - Correlate with BMP installation
  - Technical assistance
  - Emphasize compliance with construction GP and local ordinances
  - Establish open-line of communication





# Documentation

- Inspection Report
  - Inspection checklist or form
  - Photographs
- Corrective actions
  - Description
  - Location





# Documentation



- Inspection Report
  - Cite permit section numbers for all potential violations
  - Clear and legible
  - Organized and logical sequence
  - Consistency
  - Reference photos

# Documentation

- Record – EVERYTHING!
  - Times
  - Contact information
  - Weather conditions
  - Interview notes
  - Photograph/video information
  - Items taken or delivered to the site & to/from whom



# Inspection Report:

PG 12

## Accurate

- Observed weather
- Location of problem areas

## Relevant

- Certain
- Factual
- Material

## Comprehensive

- All relevant information

## Objective

- Conclusions based on observed facts

# Documentation

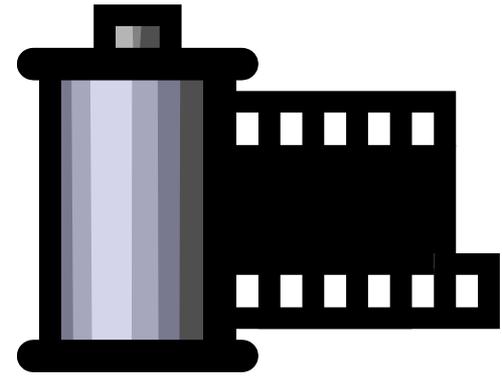
- Photos are important visual link to report narrative
  - Clarify severity
  - Compliance and non-compliance
  - On-site and off-site
- Photographs
  - Record time, date, description, and location
  - Incorporate within inspection report





## Documentation

- Photographs
  - A fair representation of what you saw
- Common problems
  - Too few photographs
  - Poor quality
  - Failure to identify subject
  - Failure to secure original



**IMPORTANT!**

**DO NOT EDIT  
original picture**

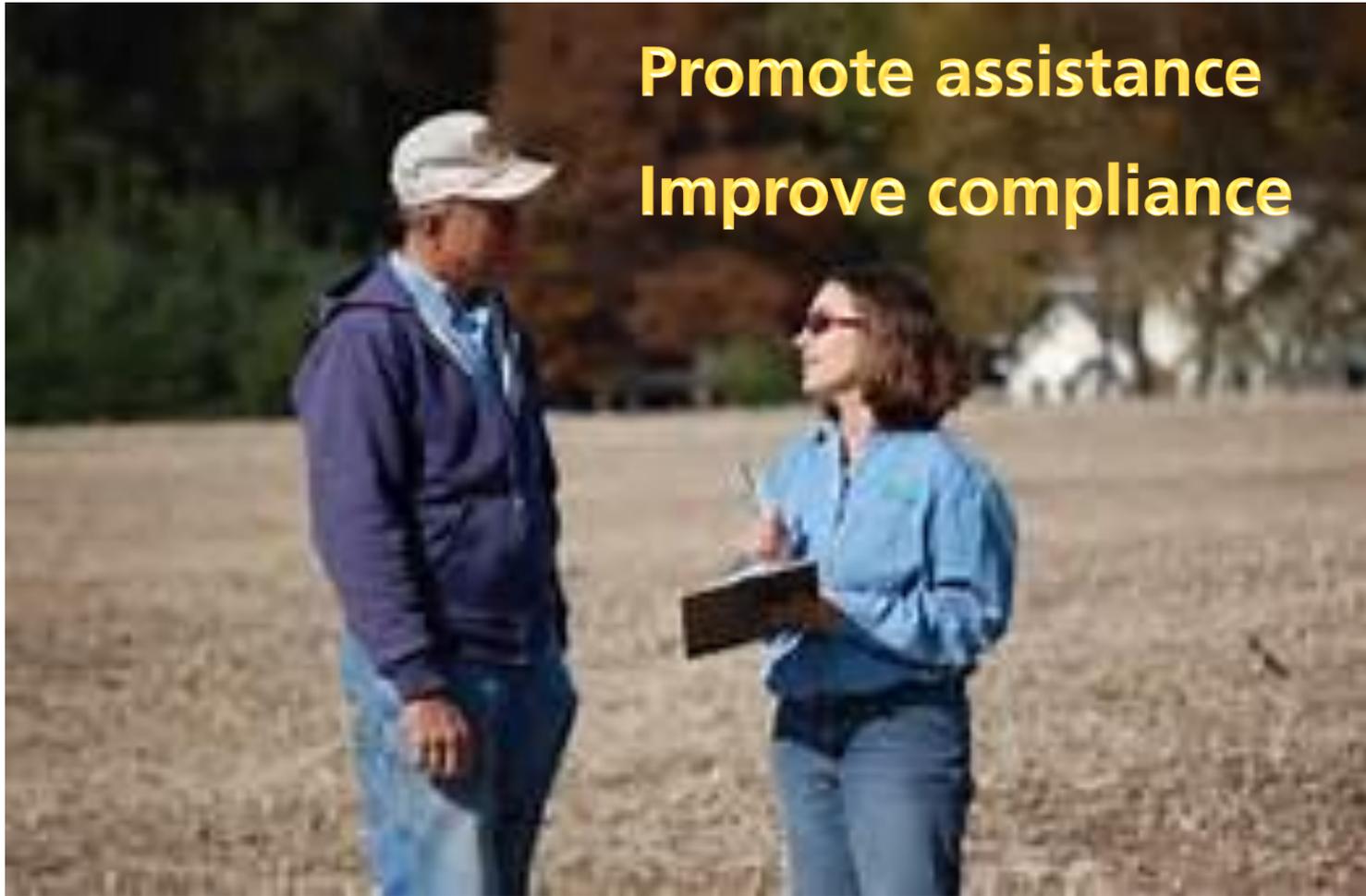


# Technical Assistance

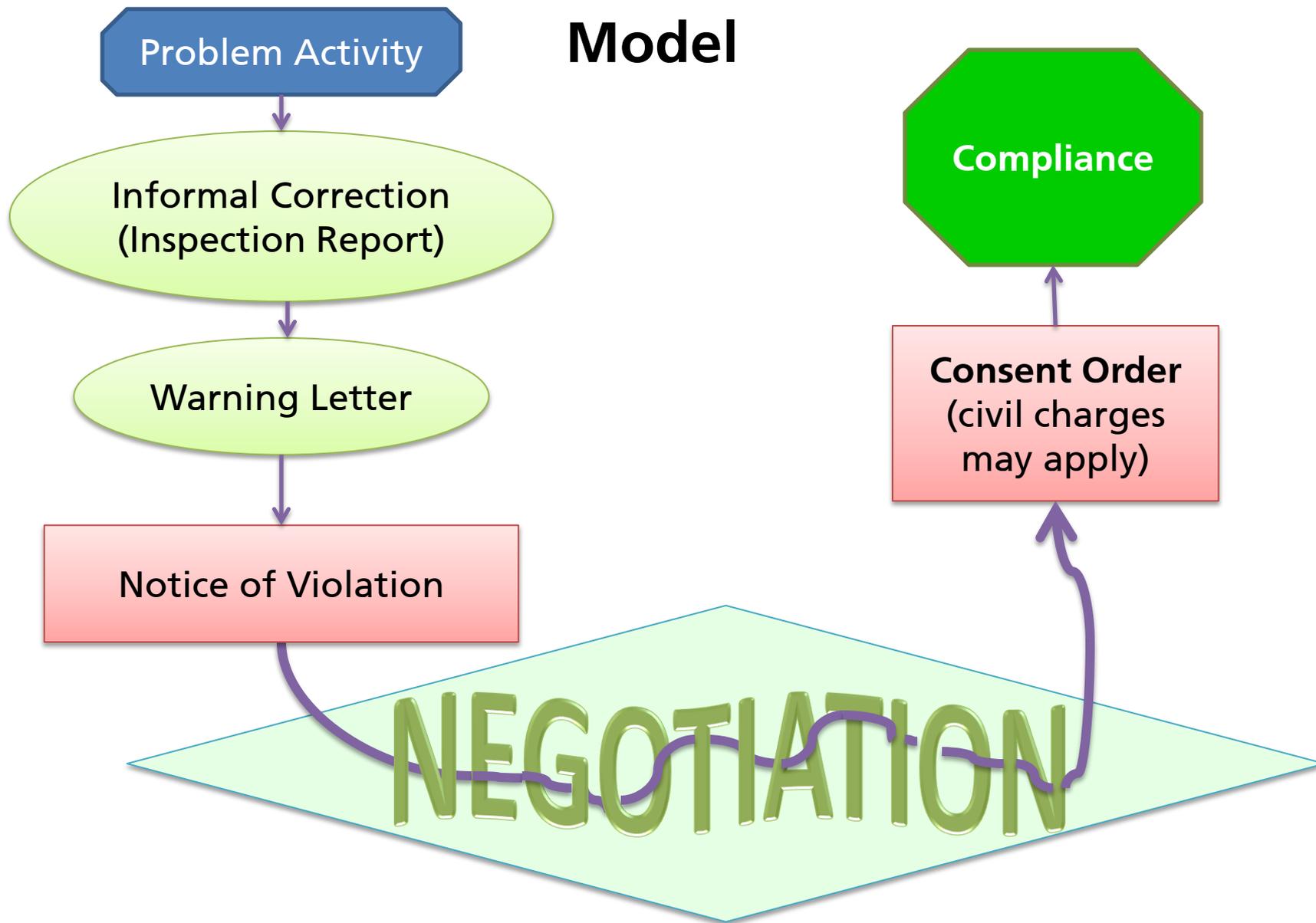
- Localities are a resource to operators:
  - Discuss potential options
  - Provide guidance documents
  - Coordinate with other regulatory agencies



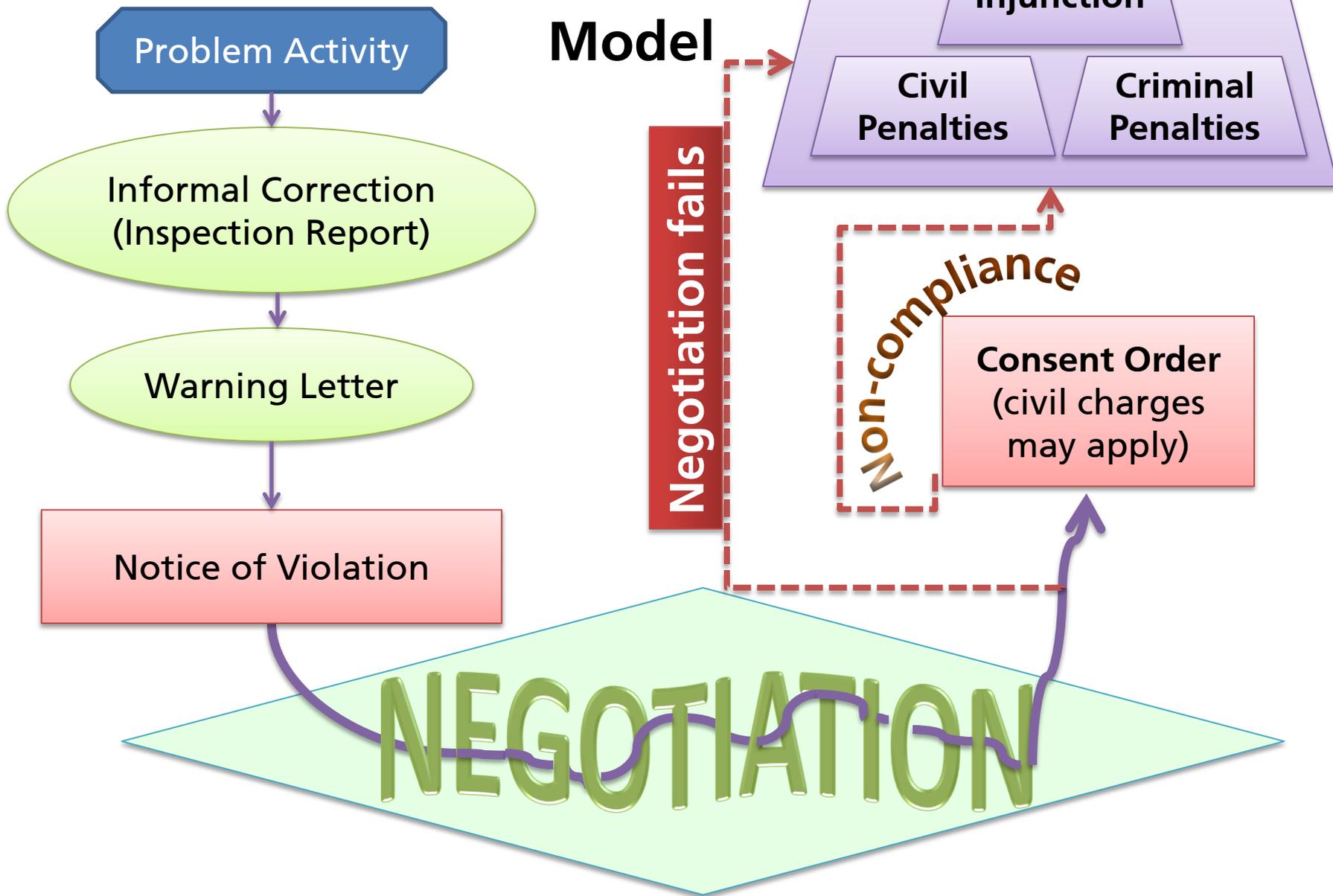
# Technical Assistance



# Enforcement Model



# Enforcement Model



## **Other enforcement tools?**

Notices to comply  
Stop Work Order  
Permit revocation  
Judicial action  
Consent order