ADOT’s Stormwater Program

WESTCAS 2011 Fall Conference
Phoenix

Wendy Terlizzi
Arizona Department of Transportation
Statewide Water Quality Manager
Overview

• Background
  – ADOT
  – Permit
• EPA Audit
• Where we are going
9 Districts

18,000 travel lane miles (does not include the shoulders or off-ramps)

Approximately 4,300 employees
  – 2 fte dedicated to water quality
In 1999, EPA determined ADOT to be a Phase 1 MS4 and issued a permit for the Phoenix and Tucson metro areas.

Re-application for Phase I Permit was submitted in February 2002.

Permit expired in September 2002 and was administratively continued by ADEQ.

Revised application was submitted in 2003 and include Phase II requirements.

In 2004, ADOT received a consent order.
   - As a condition of the consent order reapedplied in 2005 for an individual permit.
ADOT Individual Permit

- ADOT received 1st draft, March 2007
- Negotiations with ADEQ took place for 15 months
  - Focused on big ticket items
- Final Permit issued August 2008
  - Statewide (not limited to urbanized areas) but does not include Indian Country
  - Includes Phase I and II requirements
  - Includes MS4, construction, industrial requirements
- Expires September 2013
• All of ADOT’s roadways, rights of way, channels/ditches, maintenance yards, etc.
• Requires mapping of the entire ADOT system (statewide)
• 5 monitoring locations throughout the state
  – 1 sample/site per wet season
• Maintenance yards within urbanized areas require SWPPPs, others yards need BMPs
  – 3 yards require monitoring due to their proximity to impaired waters
• Mirror image of the state construction general permit
• ADOT does not have to submit NOI/NOT for projects (contractor does)
• Contractor is responsible for conditions in both permits
• Requires inspections to be performed by an Erosion Control Coordinator (ECC)
• Analytical monitoring for concrete/asphalt batch plants within ¼ mile of outstanding or impaired waters
ADOT owns/operates 4 types of industrial facilities:
- Sign shop
- Grand Canyon National Park Airport
  - Conditions apply to both ADOT and the tenants
- Print shop (closed 2010)
- Various material source sites (mining)
  - exclusive use of a material source site
Benefits of Individual Permit

- One permit consolidates information and makes finding information easier
- More tailored to DOT practices
- Standardization of regulations for different activities
- Streamlines the reporting process
Challenges of Implementation

- Scope of permit: Phoenix and Tucson MS4s to statewide
- Establishing a comprehensive stormwater program
- Integration of that program into other established areas (construction and operations)
- Lack of phasing considered in some of the permit conditions
Challenges of Implementation

• Mapping of entire state
  – Inspections: hard to inspect if you do not know culverts/detention basins locations
  – Eliminating illicit discharges/connections
    • Lack authority (rely upon state code/statute)

• Economic downturn, budget crisis in AZ
  – Hiring freeze
  – Reliance on federal funding, need to tie back to a construction project
Audit Timeline

- **February 2010** EPA states their intent to audit
- **May 2010** ADOT notified of the probability of an audit
- **June – August 2010** presented to various groups (internal and external)
- **June - July 2010** consultant conducted a mini audit of ADOT’s stormwater program
  - Desktop review and a facility review
  - Provided recommendations
- **October 2010** EPA audit
October 25-29, 2010

• Visited 4 Districts
  – 57 sites (construction, maintenance, industrial)

• Included document review, interviews, and field verification inspections
<table>
<thead>
<tr>
<th>Topic</th>
<th>Description of Material Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stormwater Management Plan (SSWMP)</td>
<td>Items in the permit and measurable goals</td>
</tr>
<tr>
<td>Maintenance Facilities</td>
<td>Stormwater Pollution Prevention Plan (SWPPP) content, implementation, inspections</td>
</tr>
<tr>
<td>Construction Facilities</td>
<td>SWPPP content, implementation, inspections</td>
</tr>
<tr>
<td>Industrial Facilities</td>
<td>SWPPP content, implementation, inspections</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Compliance with permit requirements</td>
</tr>
<tr>
<td>Program Evaluation and Reporting</td>
<td>Compliance with permit requirements</td>
</tr>
<tr>
<td>Post-construction BMP Design and Maintenance</td>
<td>Sufficient implementation and design guidance, tracking and field maintenance</td>
</tr>
</tbody>
</table>
AUDIT OBSERVATIONS
Encroachment Permits

- Permittees are supposed to comply with all applicable environmental regulations
  - As an owner, we have a responsibility to make sure the permittee is not violating conditions of our permit

- Limited authority to enforce stormwater program

- Improperly installed/maintained BMPs are nuisances for encroachment permits
Construction Concerns

- Good housekeeping at yards
- Inconsistent use of liners in concrete washouts
- Improper selection, installation and maintenance of BMPs
- Lack of documentation of inspections and corrective action follow-up
- Incomplete delegation of authority
Contractor Oversight

- SWPPP template was created to assist the contractor
- Ensures that all information ADOT requires is captured
  - Section 9 provides a certification as well as a place for delegation of authority
Secondary Containment

- Gap in liner
- Tear in liner
Concrete Washout
Not lined and unconsolidated material
Maintenance Yard Concerns

- Good Housekeeping
- Lack of signatures on SWPPPs
- Inconsistent application of SWPPPs
- Inconsistent documentation of inspections and corrective action follow-up
Oily Residue

Leaking truck over marked storm drain
Stockpile Management
Audit Outcome

• Report received May 2011
• Requested a 3-month extension for formal response
  – Response is due November 1, 2011
• A Compliance Order or similar action will be issued by EPA outlining an implementation plan and timeline
  – Possible directives on things they want us to do immediately
• More stringent permit conditions in the future
• Similar order as that received by Caltrans
  – No fines, but remedial action required
Information on the ADOT Audit

More information on the ADOT audit can be found at:

http://www.epa.gov/region9/water/npdes/ms4audits.html
Solutions to Audit Observations

• Establish the governance – policy, standards, directives
• Training – focus on key emphasis areas
• Evaluation – review and evaluate the effectiveness of the governance, and the reality of what is going on in the field
• Repeat – Plan, Do, Check, Act philosophy
• More enforcement capabilities, either by the Districts or HQ
  – Coordination with other municipalities
  – Leverage with contractors: Incentive/disincentive specs
In the past few years, EPA has focused attention on DOTs nationwide.

Biennial meetings with all DOTs to discuss strategies and solutions.

Collaboration between the American Association of State Highway and Transportation Officials (AASHTO) and EPA at a national level has helped EPA recognize differences between the DOTs and municipalities.
For More Information…

Wendy Terlizzi
Water Quality Manager

Office of Environmental Services
602-712-8353
wterlizzi@azdot.gov