Compliance with Trash TMDLs

Ten Years of Experience from Los Angeles County Unincorporated Areas

Angela George
Linda Lee Miller
County of Los Angeles
Department of Public Works
July 29, 2014
Presentation Outline

- Trash Total Maximum Daily Loads (TMDLs) in LA County
- Compliance Options
- Types of Catch Basin Inserts Tested
- Full Capture System
- Partial Capture System
- Maintenance
- County Unincorporated Areas:
  - Over 100 communities
  - Population about 1 million
- Trash TMDL Areas
Trash TMDL Compliance

Generally 2 compliance options:

1. Install **full-capture** systems throughout jurisdictional areas
   - Targeting first the high trash generating areas, followed by the medium and low trash generating areas.

2. Install **partial-capture** devices and apply **institutional controls**
   - Determine storm year trash discharge by calculating daily generation rate (DGR) for a representative area.
Selection of Option 1

- Effective means to controlling trash
- Assurance in compliance
- Simplicity in reporting
  - Monitoring for over 100 communities would be complex
## Status of Compliance

<table>
<thead>
<tr>
<th>Watershed</th>
<th>Effective Date</th>
<th>Final Compliance (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ballona Creek</td>
<td>08/11/2005</td>
<td>09/30/2015</td>
</tr>
<tr>
<td>Machado Lake</td>
<td>03/06/2008</td>
<td>03/06/2016</td>
</tr>
<tr>
<td>Los Angeles River</td>
<td>09/23/2008</td>
<td>09/30/2016</td>
</tr>
<tr>
<td>Malibu Creek</td>
<td>07/07/2009</td>
<td>07/07/2017</td>
</tr>
<tr>
<td>Santa Monica Bay</td>
<td>03/20/2012</td>
<td>03/20/2020</td>
</tr>
</tbody>
</table>

- Full-capture systems installed in approx. 4,800 out of 5,700 catch basins
Types of Catch Basin Inserts

- **Filter Basket Insert**: 2003
- **Manual Retractable Screen**: 2003
- **Automatic Retractable Screen (Older Generations)**: 2003 to 2007
- **Automatic Retractable Screen**: 2008 to present
- **Connector Pipe Screen**: 2008 to present
Connector Pipe Screen (CPS)

- A certified full capture device
- Acts as primary defense
- 5 mm screens
- With or without deflector on top
- Designed to treat peak flow of 1-year, 1-hour storm
CPS Installation

- Best field fabricated
- Strict performance standards
- Gauge thickness
- Accurate measurements of catch basins
- Material and installation about $450 per unit
Automatic Retractable Screen (ARS)

- A partial capture device
- Need routine street sweeping
- Test devices and pre-approve manufacturers prior to advertising
ARS Installation

- Provide inspection to ensure quality control
- Conduct water testing on ARS
- Material & installation about $400 (<5 feet) to $2,000 (>21 feet) per catch basin
ARS Photos
Lessons Learned

- Installation cost to date: $7M
- Reduced average cost from $2,000 to $800 per catch basin
- Larger contracts benefit from economy of scale
- Have a good mapping system for identifying catch basins
Maintenance

- Oct to Apr: Monthly and post-storm inspection and cleanout when above 40% line
- May to Sept: One inspection and cleanout
- Repair and replace of device
- Enforce device warranties
- 300,000 Gallons of debris collected in storm year 2012-13
- Avg. maintenance cost $200 per catch basin
Questions

@LACoWater  @LAPublicWorks

www.dpw.lacounty.gov