Pipe Dream or Reality

A Stormwater Inspection, Field Data Collection and Database App
SW Permit Requirements

- 40 CFR122.26(d)(2)(iv)(A)
  - A description of controls
- Insure an inspection protocol
- Documentation for EPD Annual Report, EPD audit and EPA audit
  - If you didn’t write it down you didn’t do it.
New Stormwater Permits

Inspections/ Maintenance

- Inspect system every five years
  - 20% annually
  - Document inspection protocol
  - Document inspections
  - Document training

<table>
<thead>
<tr>
<th>Inspection Item</th>
<th>Annual Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storm Inlets</td>
<td>2668</td>
</tr>
<tr>
<td>Storm Lines</td>
<td>78 miles</td>
</tr>
<tr>
<td>Canals/Ditches</td>
<td>58 miles</td>
</tr>
<tr>
<td>Industrial Sites</td>
<td>&gt;11</td>
</tr>
<tr>
<td>HVPS</td>
<td>&gt;83</td>
</tr>
<tr>
<td>Post-const. BMPs</td>
<td>&gt;120</td>
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</tbody>
</table>
Stormwater Inspections

- “If you didn’t write it down you didn’t do it.”
## Inspection Program

<table>
<thead>
<tr>
<th>CATEGORY OF WORK PERFORMED</th>
<th>CAT.</th>
<th>A.M. SHIFT (Up to 12:00 Noon)</th>
<th></th>
<th>W.O. NUMBER</th>
<th></th>
<th>P.M. SHIFT (After 12:00 Noon)</th>
<th></th>
<th>W.O. NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. PREVENTIVE MAINTENANCE</td>
<td>1</td>
<td>DUFFY - M. L. K. AVE.</td>
<td>1</td>
<td>Number of Catch Basins Cleaned</td>
<td>1</td>
<td>BULL - W. 38TH ST.</td>
<td>1</td>
<td>Number of Catch Basins Cleaned</td>
</tr>
<tr>
<td>2. 311 WORK ORDER</td>
<td></td>
<td></td>
<td></td>
<td>Number of Manholes Cleaned</td>
<td></td>
<td></td>
<td></td>
<td>Number of Manholes Cleaned</td>
</tr>
<tr>
<td>3. EMERGENCY WORK</td>
<td></td>
<td></td>
<td></td>
<td>Jet Cleaned</td>
<td></td>
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<td>Jet Cleaned</td>
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<tr>
<td>4. CHECKLIST</td>
<td></td>
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<td>Ft. of 15&quot; Dia. Pipe</td>
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<td>Ft. of Dia. Pipe</td>
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<td>5. OTHER</td>
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<td>Jet Cleaned</td>
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<td>Jet Cleaned</td>
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<td></td>
<td></td>
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<td>Ft. of Dia. Pipe</td>
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<td></td>
<td>Ft. of Dia. Pipe</td>
</tr>
</tbody>
</table>

**OTHER COMMENTS:**
- BULL/38th R.o.O.
Open System Inspections
Workflow

- Office preparation of form
- GIS map of location
- Field inspection
- Database entry
- Paper File archival
- Database report for Annual Report
Existing Documentation

- Paper based
- Advantages
  - Hard copy for archive
  - Unlimited room for notes
  - Visible in field
  - Systematic
Existing Documentation

- Disadvantages
  - Paper archive/limited retrieval
  - Database limitations
  - Manual entry & Transcription errors
  - Trends and correlations harder to identify
Current GIS System
Field Inspection and Data Collection App

Objective: Enable field collection of
- Stormwater features
- Location
- Inspection answers and results
- Pictures
- Sketches
in a synchronizable database
Candidate Systems

• Trimble
• Arc GIS
• City Works
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