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CMOM Program Development – The Value of SOPs

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Presentation Outline

- CMOM Overview & History
- CMOM Concepts
- CMOM Documentation – Recordkeeping and SOP Development
- Conclusions / Recommendations / Q & A

What is CMOM?

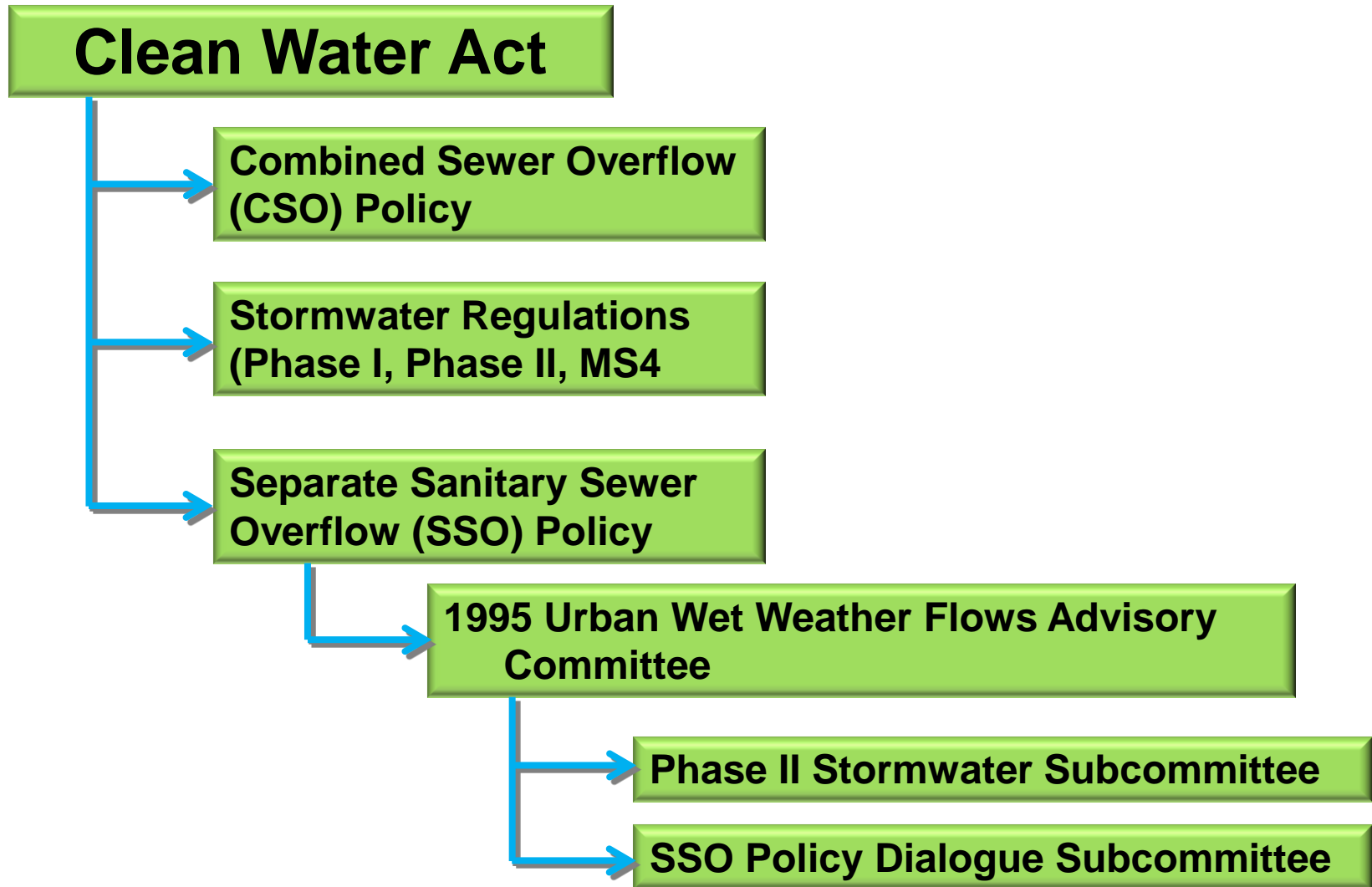
C Capacity
M Management
O Operation
M Maintenance

Intentions:

- Better manage, operate, and maintain collection systems
- Understand capacity constraints in the collection system
- Proactively prevent system overflows
- Respond to system overflows



CMOM Has Its Origin From The CWA



CMOM Grew Out of the SSO Dialogue

1999 SSO Subcommittee started working on regulations for separate sanitary collection systems which included CMOM regulations

2001 USEPA issued a Notice of Proposed Rule Making (NPRM) for SSO Policy

2001 USEPA withdrew the NPRM for Regulatory Review by the incoming Bush administration

2001 USEPA reissues the NPRM

2002 USEPA ready to send SSO Policy to OMB for financial analysis

CMOM Got Stuck in SSO Policy Debates

2003 SSO Policy was complicated with disagreements concerning “blending” issues

There seemed to be consensus on the need for CMOM but it couldn't get separated from SSO Policy

2005 USEPA Publishes “Guidance” document on CMOM

USEPA Regional Offices and some states began to develop their own CMOM regulations

2007 IEPA starts implementing CMOM regulations in NPDES permits



Benefits of a CMOM Program Are Not in Question

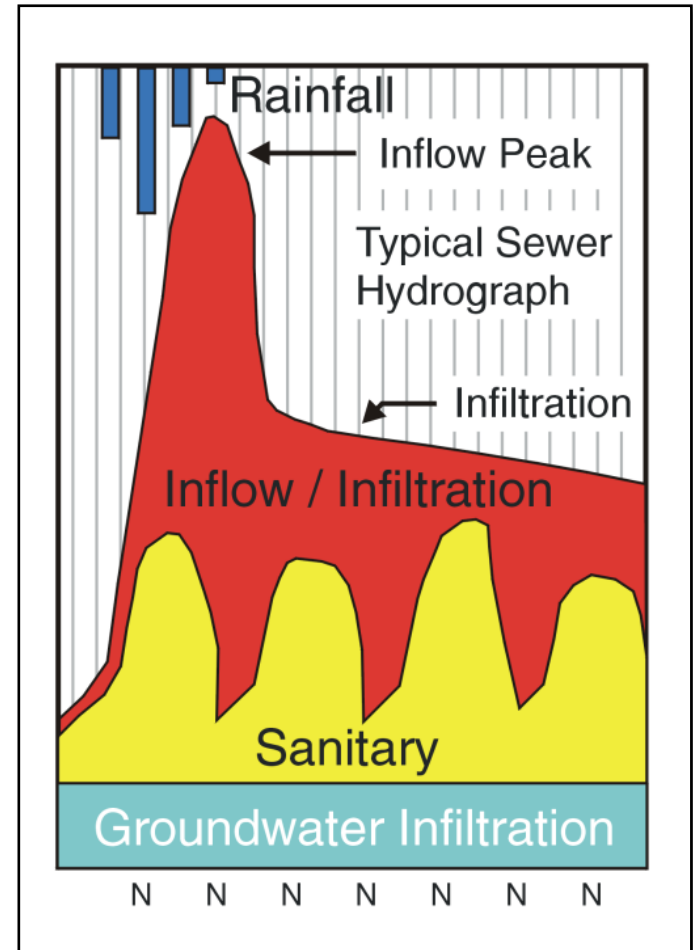
- Today the average age of sewer systems in the US is 40 years
- In 2004 more than 1/3 of conveyance system owners and operators deferred maintenance costs
- There is correlation between low maintenance and increased overflow occurrence
- SSO is a CWA violation with or without a permit
- Reduced revenues requires planned use of resources

C Capacity

- System modeling
- History of backups
- History of overflows
- History of maintenance operations
- Results of operational investigations
 - Flow metering, televising, smoke testing, leak detection
- Development impacts and future growth

C Capacity

- Understand system characteristics
 - History of backups
 - History of overflows
 - History of maintenance operations
- Results of operational investigations
 - Flow metering, televising, smoke testing, leak detection



M Management

- Organizational structure
- Personnel and position descriptions
- Internal communication procedures
- External communication procedures
 - SSO notification program
- Public education programs
- Information management systems
- Legal authority



More on Legal Authority

- Sewer use ordinance
- Pretreatment or industrial controls
- Fat, oil, and grease control
- Private lateral inspections and repairs
- Service and management agreements
- Enforcement actions

Operation and Maintenance Program Evaluation: The Day by Day Tasks



SIU Monitoring



Mapping



Safety



Budgeting



Sewer Cleaning



Parts & Equipment Inventory



Sewer Maintenance Statement

M Maintenance

- Schedules and checklists for preventive maintenance
 - Sewer cleaning
 - Root removal
- Mechanisms for unplanned maintenance



M Maintenance

- Capital improvement planning
- Prioritization of rehabilitation
 - Manholes
 - Mainline sewers
 - Laterals



M Maintenance

- Parts and equipment inventory
- Equipment maintenance plan
- Budgeting





CMOM Program Documentation

- Program Documentation is IMPORTANT!
 - Documentation for all stakeholders
 - Regulators
 - Politicians (They have the \$\$!)
 - Customers (These are the folks who really matter!)
- Documentation Includes Three Main Focus Areas
 - What Are We Doing? – Document Activities
 - Why Are We Doing It? – Document Results
 - How Are We Doing It? - **Standard Operating Procedures (SOPs)**

SOPs – Why Bother?

- We know what we are doing – we have been doing this for years!
 - Older employees typically train new staff
 - OJT – learn a task via repetition – this is not going away!
- What happens if someone quits – or worse?



SOPs – Why Bother?

- The regulators will ask for it! - Possibly the worst reason for doing this?
- Liability issues – now you got my attention!
- Your organization can benefit from it!
 - Capture institutional knowledge – help the veterans on your staff “remember” that they are valuable!
 - Engage younger staff members – help them understand that they matter and that they can play an important role in the organization

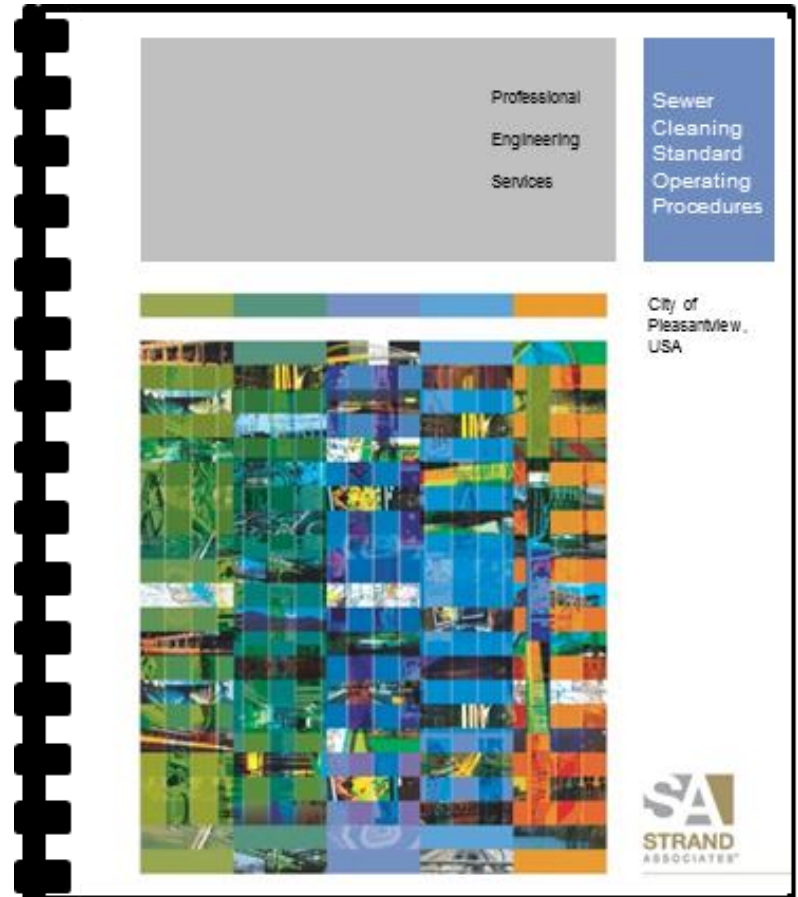
SOP Development

- Utilize the KISS Principle!
- Start with the basics
 - Document
 - Review
 - Modify
 - Repeat as necessary (over time!)



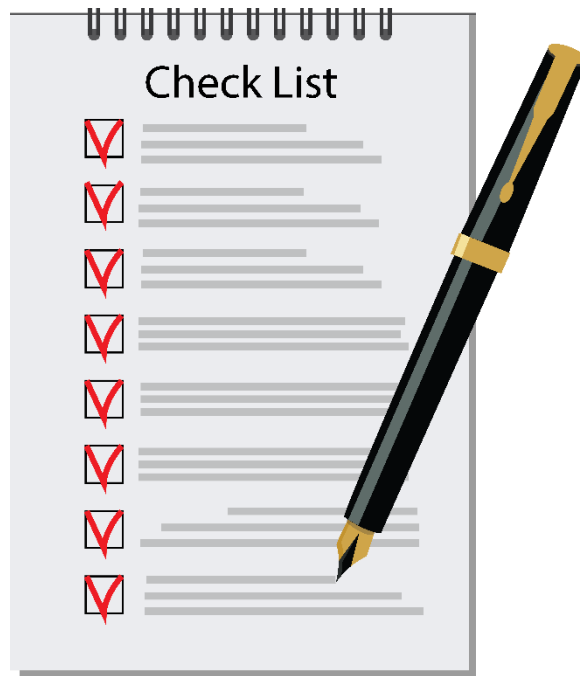
SOP Development - Document

- Do not start from scratch – use resources available to you
 - Your neighbors – IAWEA members are a great resource!
 - On-line resources – all that stuff they told you in school about not copying? Ditch it!



SOP Development - Format

- Select a format & style that works for your organization and employees
- Avoid long narratives – this is meant to be useful
- Checklists for use in field – “pointers” to additional references



SOP Development – Review & Modify

- Start with the veterans
- Engage newer staff – they can improve the finished product!
- Incorporate suggestions
- Remember – KISS – you are not trying to document every potential scenario

SOP Development – Repeat As Necessary Over Time

- Very few things in life are stagnant
- New equipment
- New regulations
- New personnel – engage them!
- Unique scenarios to be documented – The “anti-KISS” concept
- Make SOP review and modification part of your routine CMOM evaluation – if your programs sit on the shelf they are doing you any good

SOP Process – Make It Work For You

- Since you may be required to do this – make the most of it!
- Potentially reduce liability
- Engage veteran staff
- Train younger staff
- Identify future leaders in your organization



Preparing for CMOM

- USEPA Guidance Document
 - Use the Self-Assessment Checklist
- Perform a gap analysis
 - Review your existing programs and facilities
 - Gather your data
 - Review records
 - Interview staff
- Identify what aspects of your “CMOM” program need to be enhanced or developed

CMOM Program Should Be Holistic

- Consider other aspects of the watershed
 - Combined sewer, stormwater, separate sewer
 - Each can benefit the other
- Educate
 - Public officials
 - General public
- Identify funding sources and budget
- Be proactive

Use References and Don't Reinvent the Wheel

- ***Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems.*** Prepared by the USEPA, January 2005.
http://www.epa.gov/npdes/pubs/cmom_guide_for_collection_systems.pdf
- ***Capacity, Management, Operations, and Maintenance (CMOM) Program Self Assessment Checklist.*** Prepared by the U.S. Environmental Protection Agency, October 2003. <http://www.epa.gov/npdes/pubs/cmomselfreview.pdf>
- ***Optimizing Operation, Maintenance, and Rehabilitation of Sanitary Sewer Collection Systems.*** Prepared by the New England Interstate Water Pollution Control Commission, December 2002. <http://www.neiwpcc.org/omrmanual.asp>
- ***Collection System Operation and Maintenance Training Videos.*** Office of Water Programs, California State University, Sacramento.
http://www.owp.csus.edu/training/courses/waste_water/index.php



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