

# National MS4 Stormwater Permitting Program Assessments

Randy Neprash, PE



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# **Three Sources**

**EPA - Evolution of Stormwater Permitting  
and Program Implementation Approaches**

**WEF Stormwater Institute**

**National MS4 Needs Assessment**

**Survey Results: Executive Summary**

**NMSA 2018 State of Stormwater Report**

# EPA Workshop

- **“The Clean Water Act (CWA) Amendment of 1987 set forth a phased approach to regulating urban stormwater runoff through National Pollution Discharge Elimination System (NPDES) permits.”**
- **“... in the nearly 30 years of the MS4 program’s existence, there has not been an overall evaluation focused on improving program implementation and MS4 permitting practices and approaches. In December 2017, EPA Region 9, in partnership with the State of California and EPA Headquarters, convened a small group of stormwater professionals from across the country for a workshop designed to address this need.”**

# Workshop Participants

<b>Workshop Participants</b>	<b>28</b>	
<b>California</b>	<b>17</b>	<b>61%</b>
<b>Everywhere else</b>	<b>11</b>	<b>39%</b>
<b>EPA</b>	<b>8</b>	<b>29%</b>
<b>State of California</b>	<b>4</b>	<b>14%</b>
<b>Regulators</b>	<b>14</b>	<b>50%</b>
<b>Environmental groups</b>	<b>3</b>	<b>11%</b>
<b>MS4 permittees</b>	<b>6</b>	<b>21%</b>

# **MS4 Permitting in California is Crazy and Terrifying**

- **The Minneapolis individual MS4 Permit has two permittees and is 48 pages long**
- **The Los Angeles MS4 Permit has 84 co-permittees and includes more than 1,200 pages of materials**
- **Everything in California is driven by lawsuits and distrust – cities, counties, State, EPA, environmental groups**

# MS4 Permitting in California is Crazy and Terrifying

- The LA Permit includes 34 TMDLS
- LA County Public Works estimates the cost of compliance with the TMDLs over the next 20 years to be between \$17 and \$120 billion
- Our MS4 permitting is relatively simple, concise, and flexible, with compliance accomplished cooperatively – with relatively few enforcement actions

# Workshop Recommendations

## Cross-Cutting Recommendations for Capacity Building and Program Support

- Establish National Stormwater Program Implementation Expectations
- Advocate for and Build Capacity Related to Stormwater Program Funding
- Increase Research and Enhance Guidance on BMP Performance and Cost
- Build Capacity for Asset Management
- Highlight Benefits of Different Planning Approaches and the Importance of Program Planning.
- Foster Coordination Across Water Programs



# Workshop Recommendations

## Cross-Cutting Permitting Recommendations

- Clarify MS4 Permitting Requirements and Expectations
- Consolidate Phase I and II Requirements
- Provide Flexibility in MCM Requirements
- Explore Options to Provide Longer Planning Timeframes for Permittees
- Develop Transparent Compliance Assessment Expectations
- Improve Monitoring and Reporting Approaches

# Workshop Recommendations

## Making Public Outreach and Involvement Work for the Program

- Coordinate Efforts at Various Scales
- Increase Flexibility and Encourage Targeted Efforts
- Improve Stormwater Messaging Programs

# Workshop Recommendations

## IDDE to Fit Local Needs

- Enable a More Focused Approach to Outfall Screening
- Establish Clear Guidance on Addressing Elevated Bacteria Levels in Stormwater

# Workshop Recommendations

## Tailoring Industrial/Commercial Programs to Fit Local Needs and Align with Industrial Permits

- Reduce Overlap Between Industrial Stormwater Permits and Municipal Stormwater Permits
- Merge Industrial/Commercial Oversight Activities into the IDDE Program
- Shift to Targeted Inspections

# Workshop Recommendations

## Improving Programs to Address Public Agency Activities and Municipal Housekeeping

- Incentivize Asset Management
- Improve Municipal Facility Management/Housekeeping Program Guidance and Capacity
- Adjust Focus of Facility Inspections

# Workshop Recommendations

## Streamlining and Strengthening Local Post-Construction-Related Practices

- **Compile Relevant Local Requirements in One Place**
- Incorporate Smart Stormwater Design into Municipal Planning Practices
- Create Guidance on Off-site Stormwater Crediting
- Continue to Build Capacity for BMP Maintenance
- Continue to Build Capacity for Green Infrastructure Approaches

# Report Textboxes

Through a collaborative process, stakeholders created the *Minnesota Stormwater Manual* to help users better manage stormwater. The manual serves as guidance to communities that put recommendations into practice through local enforceable standards. The manual is maintained in an online wiki format and is often accessed by users.

# Report Textboxes

In Minnesota, many cities have successfully adopted the practice of assembling all stormwater ordinances, design standards, and local regulatory mechanisms into a single guide made available to all builders and project designers.



# Water Environment Federation

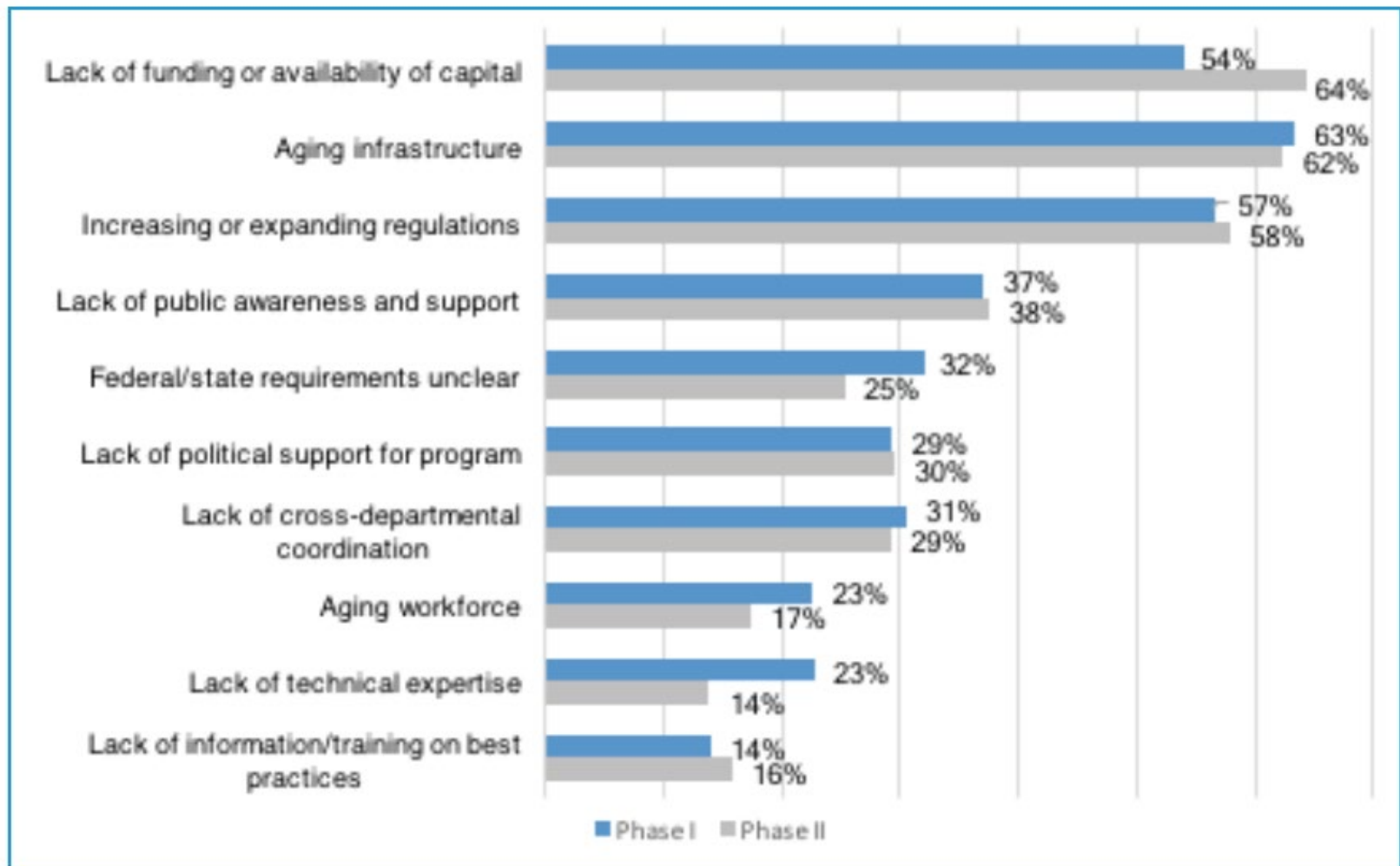


National Municipal Separate Storm Sewer System  
(MS4) Needs Assessment  
Survey Results  
Executive Summary

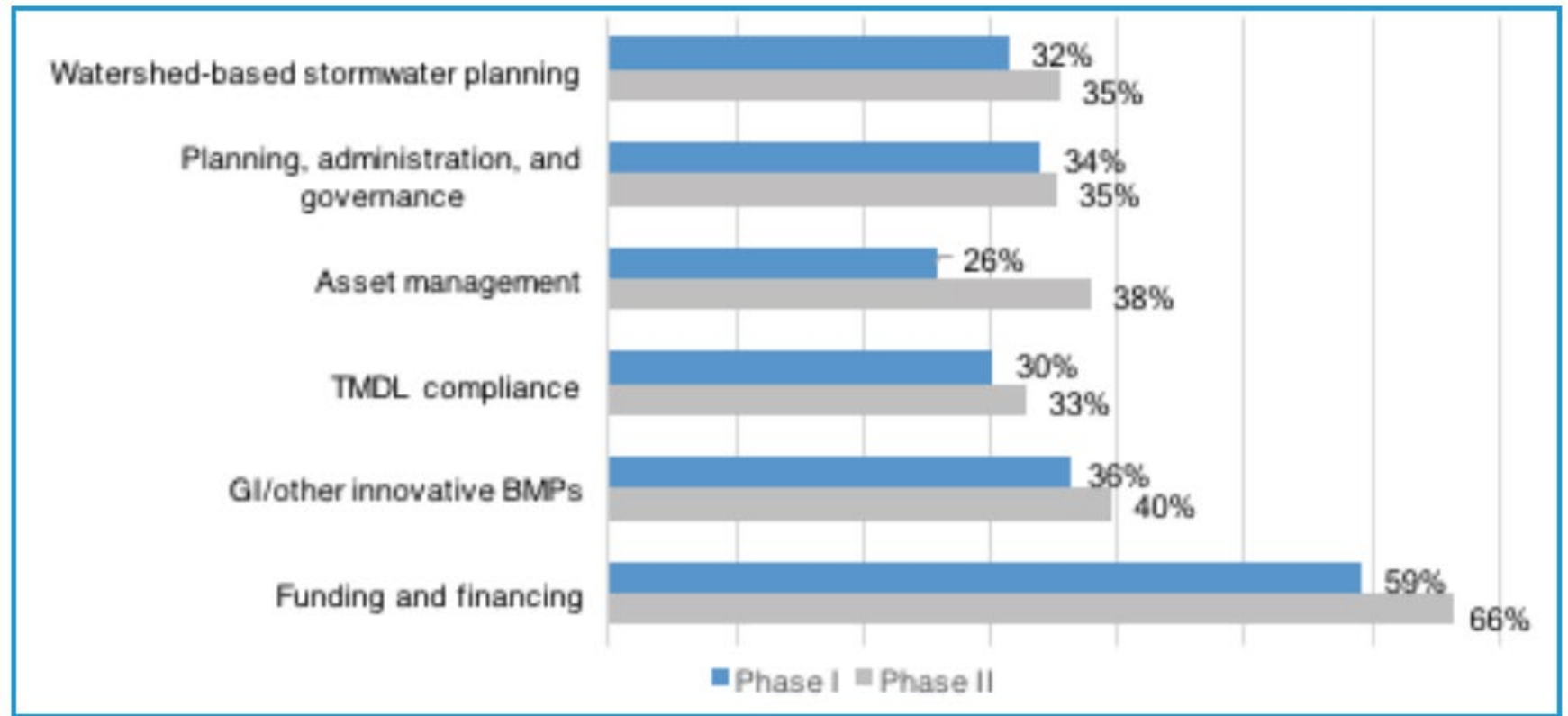
# Survey is robust

- **622 responses, from 48 states - including DC**
- **5% margin of error**
- **Phase I – 25% (155)**
- **Phase II – 65% (404)**
- **Non-traditional – 7% (43)**
- **DOTs – 3% (19)**
- **Minnesota – 93 responses (next state – 34)**

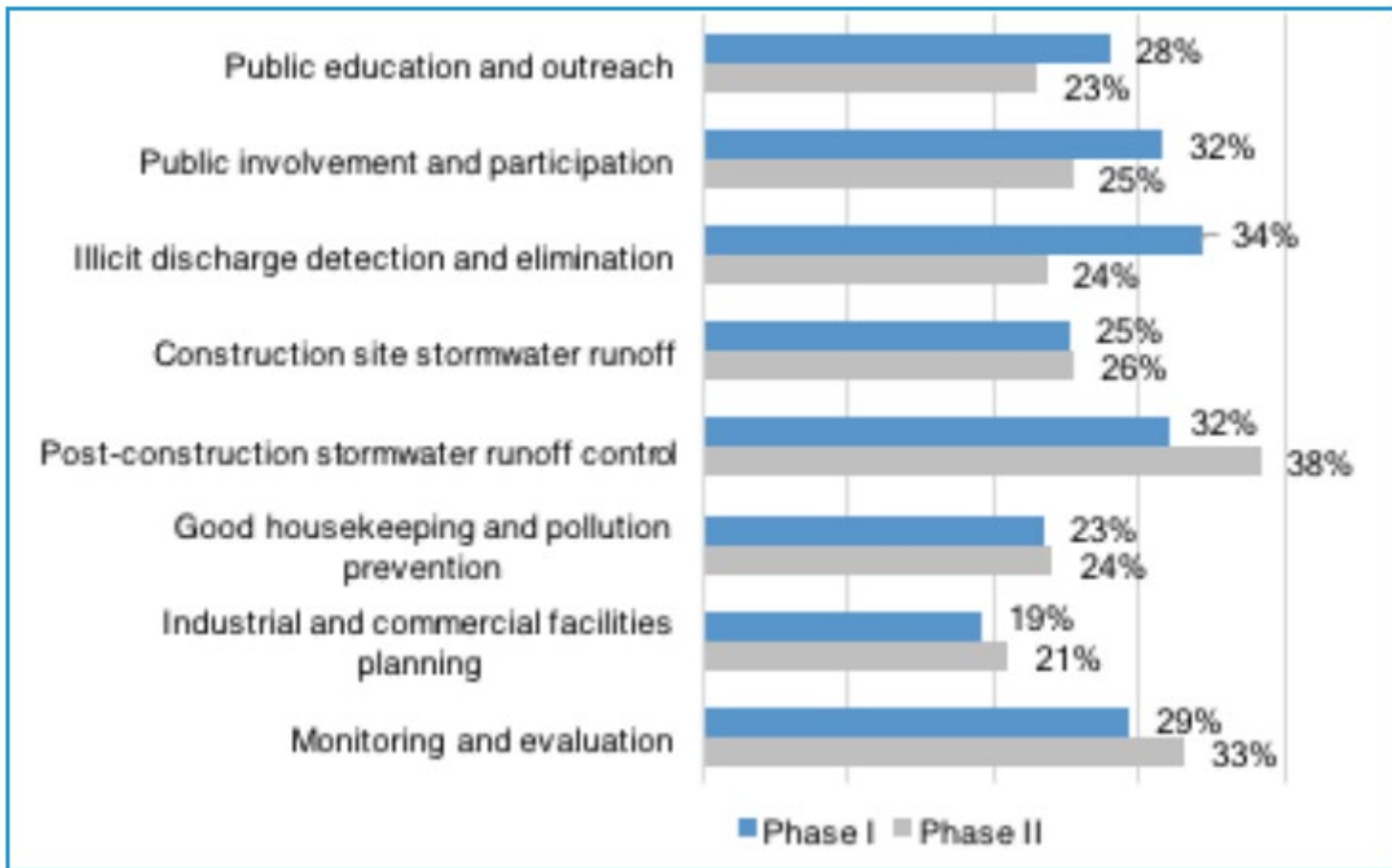
# Fairly or extremely significantly program challenges



# Information Needs: Key Stormwater Topics



# Information Needs: MS Permit Compliance



# Highest Ranked Info & Resource Needs

## Funding and financing

- Leveraging additional sources of funding based on co-benefits
- Inventory of available funding sources (PI)
- Analysis of stormwater funding needs (PII)

## GI and other innovative BMPs

- Policies and incentives that encourage GI on private property
- Development standards and incentives that encourage GI/innovative BMPs
- Monitoring/quantifying BMP effectiveness (PII)

# Highest Ranked Info & Resource Needs

Post-construction  
stormwater runoff  
control

- Post-construction inspection and enforcement
- Stormwater manuals and design templates for developers, especially for innovative BMPs

Asset  
management

- Cost estimating/cash flow analysis for capital expenditures
- Evaluating life-cycle costs of stormwater control measures (PII)
- Prioritizing stormwater asset maintenance and replacement (PI)

# Funding

**“Overall, 48% of respondents indicated that they did not have enough money in their program budget to meet their stormwater program goals.”**

	Average estimated 2018 program budget	Percent of respondents that do not have enough money to meet program goals	Additional annual budget needed to meet all program goals	Annual budget increase needed (%)
Phase I municipal (n = 128)	\$10,968,000	47%	\$5,719,000	52%
Phase II municipal (n = 324)	\$1,367,000	49%	\$1,862,000	136%
Phase II non-traditional permittee (n = 36)	\$ 429,500	41%	\$ 1,005,000	234%
State DOT (n = 11)	\$ 22,165,000	57%	\$ 2,563,000	12%



# National Municipal Stormwater Alliance

- **2018 State of Stormwater Report**
- **46 pages, 14 states**
- **Short summary from each state**



# 2018 State of Stormwater Report

<b>Arizona</b>	<b>4</b>	<b>California</b>	<b>2.5</b>
<b>Indiana</b>	<b>2.5</b>	<b>Iowa</b>	<b>1.5</b>
<b>Kentucky</b>	<b>2.5</b>	<b>Maine</b>	<b>4</b>
<b>Massachusetts</b>	<b>3</b>	<b>Minnesota</b>	<b>3</b>
<b>Nebraska</b>		<b>Ohio</b>	<b>2</b>
<b>Pennsylvania</b>		<b>Tennessee</b>	<b>3</b>
<b>Utah</b>	<b>3</b>	<b>Virginia</b>	<b>2.5</b>

# Sources

**EPA – “Evolution of Stormwater Permitting and Program Implementation Approaches” – nothing on the Web yet**

**WEF Stormwater Institute**

**National MS4 Needs Assessment Survey Results: Executive Summary**

**[http://wefstormwaterinstitute.org/wp-content/uploads/2018/10/MS4\\_Survey\\_Results\\_Executive\\_Summary.pdf](http://wefstormwaterinstitute.org/wp-content/uploads/2018/10/MS4_Survey_Results_Executive_Summary.pdf)**

**NMSA 2018 State of Stormwater Report**

**<http://nationalstormwateralliance.org/wp-content/uploads/2018/07/State-of-Stormwater-Report.pdf>**

# Questions?

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