

The Status of Storm Water Permitting

Storm water regulation in the Salt River Valley, a discussion - -

**Where are we, where are we going,
what is to be done?**

- - with apologies to V. Lenin



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EPA Initiated Stormwater Rulemaking

- Primary impetus – protect waterbodies from stormwater impact of urbanization
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“Pollution from urban and agricultural land that is transported by precipitation and runoff (called nonpoint source or NPS pollution) is the leading source of impairment.”

from the 2000 National Water Quality Inventory
(national 305b Report)



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Communities Included in NSQD version 3



Version 3 incorporates MS4 data, along with selected data from the International BMP Database, the USGS, and NURP.

Database Representation

- BMP
- NURP
- ★ USGS
- ★ NSQD

Number of Events and Geographical Coverage in NSQD ver. 3

RAIN ZONE	TOTAL EVENTS	PERCENTAGE
Zone 1- Great Lakes and Northeast	1,271	15
Zone 2- Mid Atlantic	3,984	46
Zone 3- Southeast	744	9
Zone 4- Lower Mississippi Valley	301	4
Zone 5- Texas	799	9
Zone 6- Southwest	417	5
Zone 7- Northwest	865	10
Zone 8- Rocky Mountains	24	0.3
Zone 9- Midwest	197	2
TOTAL	8,602	100

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“Phase 1 data shows significant patterns for different land uses and geographical locations for most constituents . . .”

Pitt 2010

“Most of the analyses in this research were performed for residential, commercial and industrial land uses in EPA Rain Zone 2 (the area of emphasis according to the terms of the EPA funded research). Much more data are available from other stormwater permit holders that were not included in this database.”

Maestre and Pitt 2005



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National Research Council (NRC) Report

- In 2006 EPA commissioned the National Research Council (NRC) to study EPA's stormwater program
- In October 2008 NRC released *Urban Stormwater Management in the United States*, available at: www.epa.gov/npdes/stormwater
- Key Findings
 - Current approach is unlikely to produce an accurate picture of the problem and unlikely to adequately control stormwater's contribution to waterbody impairment
 - Requirements leave a great deal of discretion to dischargers to set their own standards and ensure compliance, which results in inconsistency across the nation
 - Poor accountability and uncertain effectiveness

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Because of a 10-year effort to collect and analyze monitoring data from MS4s nationwide, the quality of storm water from urbanized areas is well characterized.

NRC, 2009, Urban Stormwater Management in the United States



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- ◆ **EPA's current approach to regulating storm water is unlikely to produce an accurate or complete picture of the extent of the problem, nor is it likely to adequately control storm water's contribution to water body impairment.**
- ◆ **Flow and related parameters like impervious cover should be considered for use as proxies for storm water pollutant loading.**
- ◆ **EPA should engage in much more vigilant regulatory oversight in the national licensing of products that contribute significantly to storm water pollution.**
- ◆ **The federal government should provide more financial support to state and local efforts to regulate storm water.**

NRC, 2009, Urban Stormwater Management in the United States



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The full distribution and sequence of flows (i.e., the flow regime) should be taken into consideration when assessing the impacts of storm water on streams.

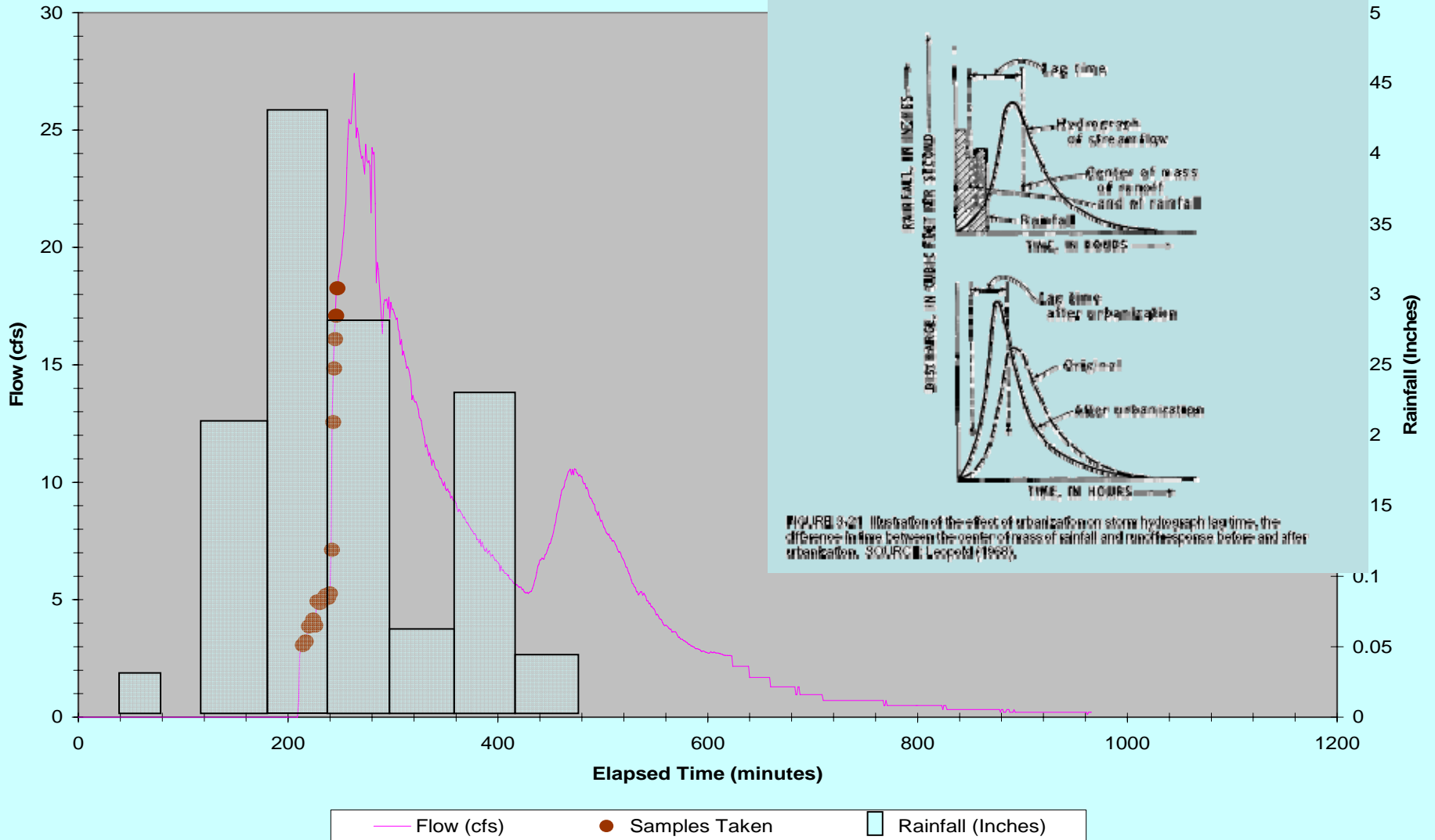
NRC, 2009, Urban Stormwater Management in the United States



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SR30 - 27th Avenue and the Salt River Storm of January 19, 2010



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Performance characteristics are starting to be established for most structural and some nonstructural SCMs, but additional research is needed on the relevant hydrologic and water quality processes within SCMs across different climates and soil conditions.

NRC, 2009, Urban Stormwater Management in the United States



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- **City of Arcadia vs SWQCB (filed 1/06)**

“(regional water boards need) not be limited to practicability. . . for developing limits on pollution.”

“requiring that EPA show a rigorous scientific methodology. . . would effectively prevent the agency from acting in situations where action is required in the face of a clear public health or environmental danger.”

- **Energy Independence and Security Act of 2007**

“a Federal facility with a footprint that exceeds 5,000 square feet shall . . . maintain or restore, the predevelopment hydrology of the property . . .”

- Section 438



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Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance, Oct. 5, 2009

Within 60 days of the date of this order, the Environmental Protection Agency. . . shall issue guidance on the implementation of section 438 of the Energy Independence and Security Act of 2007(42 U.S.C. 17094). . .”

- Sec. 14. Stormwater Guidance for Federal Facilities.



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**HOW SHOULD THE REGULATED WEST
RESPOND?**

**HOW WILL THAT RESPONSE BEST
FRAMED?**

**WHAT, IF ANY, IS THE ROLE OF
WESTCAS?**



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Thank you!

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