

# Resources Spent

Stakeholder Meeting  
June 24-25, 2003



## Congressional directive

**The Administrator of the Environmental Protection Agency shall transmit to Congress a report summarizing:**

*... the resources spent by municipalities to address these impacts*

## **Components of presentation**

- **Methodological approach**
- **What has been the total investment in clean water infrastructure?**
- **To date, what has been spent specifically to control CSOs and SSOs?**
- **What are the projected costs to meet current requirements for CSO and SSO control?**
- **What funding is available, and is it adequate?**

## **Methodological Approach**

- **Data sources**
  - ▶ **EPA, CBO and GAO analyses**
  - ▶ **Interviews with state and municipal officials**
  - ▶ **EPA's State Revolving Fund (SRF) and Clean Water Needs Survey (CWNS) programs**
  - ▶ **AMSA, ASCE, WEF, WERF, and APWA information**
  - ▶ **Extensive literature and web searches**

## **Methodological Approach**

### **● Data analysis**

- ▶ **Tabulate information of past investment in clean water infrastructure**
  - **EPA, CBO and GAO analyses**
- ▶ **Compile information on what has been spent on CSO and SSO control**
  - **Interviews with state and municipal officials**
  - **SRF and CWNS programs**
  - **AMSA, ASCE, WEF, WERF, and APWA information**

## **Methodological Approach**

### **● Data analysis**

- ▶ **Estimate investment needed to meet current requirements for CSO and SSO control**
  - **EPA's 1996 Clean Water Needs Survey**
- ▶ **Summarize available funding mechanisms**

## **Methodological Approach**

- **Data considerations**

- ▶ **Currently, the costs of CSO and SSO control are borne almost exclusively by local governments and utilities.**
- ▶ **Local governments and utilities have not been requested to report on costs incurred for CSO and SSO control.**

## **What has been the total investment in clean water infrastructure?**

- **The value of wastewater infrastructure is \$1-2 trillion.**
- **The investment has resulted in full treatment of 97% of collected sewage.**
- **Current capital investment in clean water infrastructure is \$11 billion annually.**
  - ▶ **90% of this is currently borne by local governments and utilities.**
- **Annual O&M costs have increased from \$3.7 billion in 1974 to \$15.5 billion in 1994.**

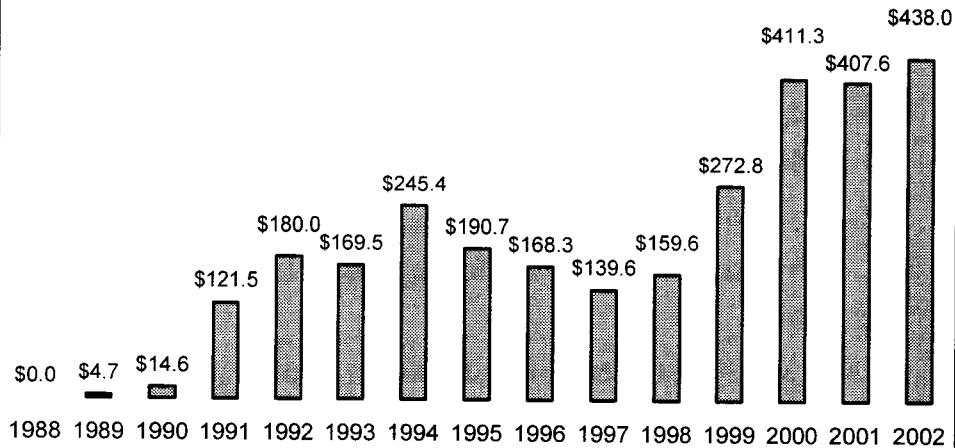
## **What has been the total investment in clean water infrastructure?**

- **Annual federal capital funding peaked at \$9.1 billion in 1980.**
- **The projected gap between infrastructure needs and available funding is estimated to be:**
  - ▶ **\$1 to \$6.1 billion per year in capital needs; and**
  - ▶ **\$0.5 to \$7.4 billion per year in O&M needs.**
- **The funding gap jeopardizes the sustainability of existing infrastructure.**

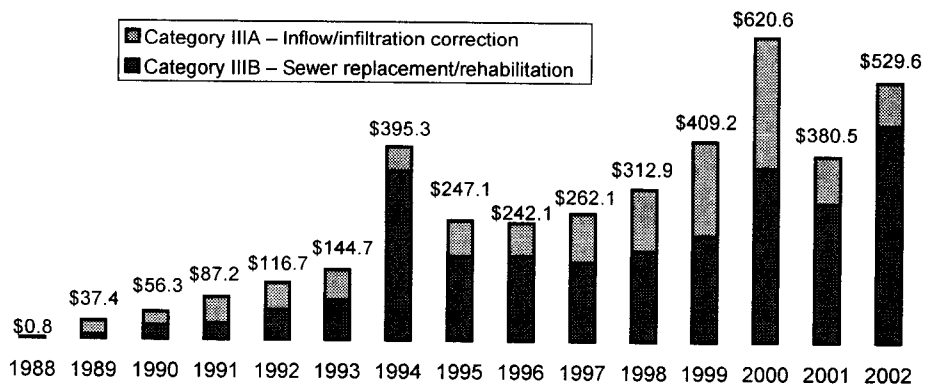
## **What has been spent on CSO and SSO control?**

- **Expenditures on wastewater infrastructure have been large.**
- **Data on expenditures specific to CSO and SSO control are limited.**
  - ▶ **federal spending**
  - ▶ **individual state assessments**
  - ▶ **anecdotal costs for individual communities**

## SRF expenditures for CSO projects (\$ millions)



## Estimated SRF expenditures for SSO-related projects (\$ millions)



## Examples of community expenditures on CSO control

<i>Community</i>	<i>Capital expenditures</i>	<i>Annual O&amp;M</i>	<i>Additional funds needed</i>
North Bergen, NJ	\$3.9 million		\$24.2 million
Randolph, VT	\$2.91 million		\$0.5 million
Richmond, VA	\$221 million	\$6.7 million	\$242 million
Rouge River, MI	\$350 million	\$5 million	\$1.3 billion
Saginaw, MI	\$105.2 million		\$65.6 million
San Francisco, CA	\$1.45 billion	\$20 million	\$60 million
South Portland, ME	\$9 million	\$0.35 million	\$13.8 million
Washington, D.C.	\$35 million		\$1.265 billion

*Source: EPA's 2001 Report to Congress Implementation and Enforcement of the Combined Sewer Overflow Control Policy*

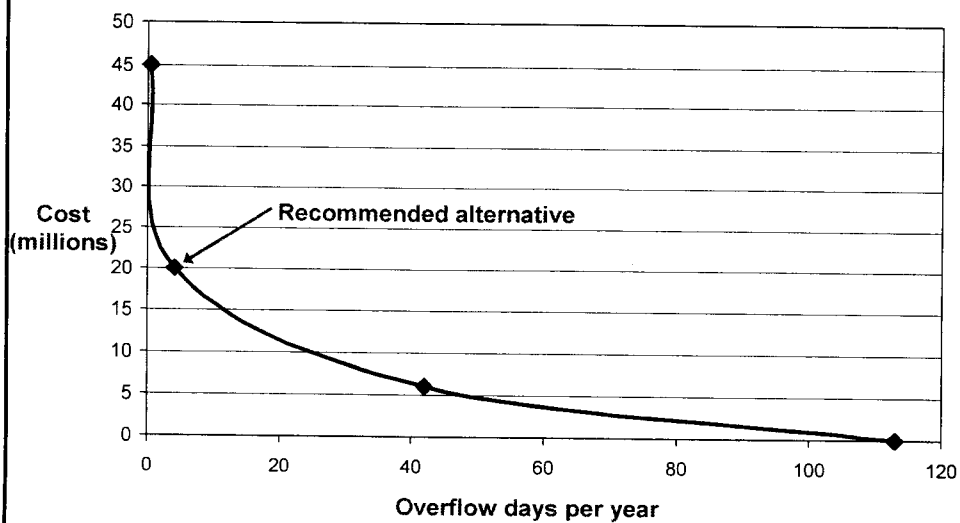
## What has been spent on CSO and SSO control?

- **Inherent difficulties in developing national estimate of spending on CSO and SSO control**
  - ▶ **The CSO Control Policy requires communities to project costs in long term control plans, but not to report on actual expenditures.**
  - ▶ **Currently, structured "SSO control plans" are not required; costs are typically lumped with other clean water infrastructure spending.**

## What are the projected costs to meet current CSO requirements?

- 1996 CWNS estimated an additional \$52 billion in needs for all municipalities to meet the presumption approach (4 to 6 overflows per year).
- If control has to be provided beyond 4 to 6 overflows per year, to meet current water quality standards, costs will substantially increase.

### Knee of curve illustration: cost in millions vs. CSO frequency





## **What are the projected costs to meet current SSO requirements?**

- **1996 CWNS did not consider SSO needs.**
- **2000 CWNS will indicate whether communities have SSO needs, but will not make a national estimate.**
- **In separate studies, EPA and AMSA estimate that annual O&M costs for sanitary sewer systems could exceed \$1.6 billion.**

## **What funding is available?**

- **Self financing is most readily available but limited by competing demands and affordability.**
- **Use of SRF loans is increasing, but still represents a small fraction of needs.**

## **Grant funding has had a significant role in financing CSO control**

- **Communities furthest along on CSO control received grant funding.**
- **Key grant sources include:**
  - ▶ **Section 106 grants**
  - ▶ **Special projects earmarked in EPA's budget**
  - ▶ **Water Resources Development Act**
- **28 states have grant programs for CSO control.**

## **Grant funding has had a significant role in financing CSO control**

- **Additional resources available for small and economically disadvantaged communities:**
  - ▶ **Rural Utilities Service Grant Program**
  - ▶ **Economic Development Administration Grant Program**
  - ▶ **Community development block grants**

## Conclusions

- **There is a significant gap between needs and funding. This gap is expected to increase.**
- **Lack of funding is causing problems.**
  - ▶ **2001 CSO Report to Congress found:**
    - **Funding is the most significant barrier to implementing the CSO Control Policy.**
  - ▶ **Government Accounting Office (GAO) found:**
    - **29% of utilities are deferring maintenance**
    - **Rate of rehab/replacement less than desired for 65%**
    - **Deferred capital expenditures for 20%**