

# Meeting Clean Water Infrastructure Needs for the 21<sup>st</sup> Century

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# Why We Need Federal Clean Water Funding

- Water pollution knows no state bounds
- Inadequate protection pollutes downstream drinking water sources, beaches, fisheries, wildlife habitat
- That is why Congress set up a national program with federal assistance in 1972



Courtesy of J. Kirk Condyles

# The Clean Water SRF is a Good Investment

- Upgraded sewage treatment
- Fewer raw sewage overflows
- Fewer beach closures and safer beachwaters
- Enhanced wildlife habitat and biodiversity
- Less waterborne disease
- Reduced drinking water filtration costs
- Increased revenue from tourism, fishing and shellfishing, waterfront development
- More than 400,000 jobs annually for engineers, contractors, manufacturers, and skilled laborers
- Direct return of 2.23 times the federal investment



Installation of permeable pavers  
*Courtesy of Portland, BES*

# Water Pollution Problems are Growing

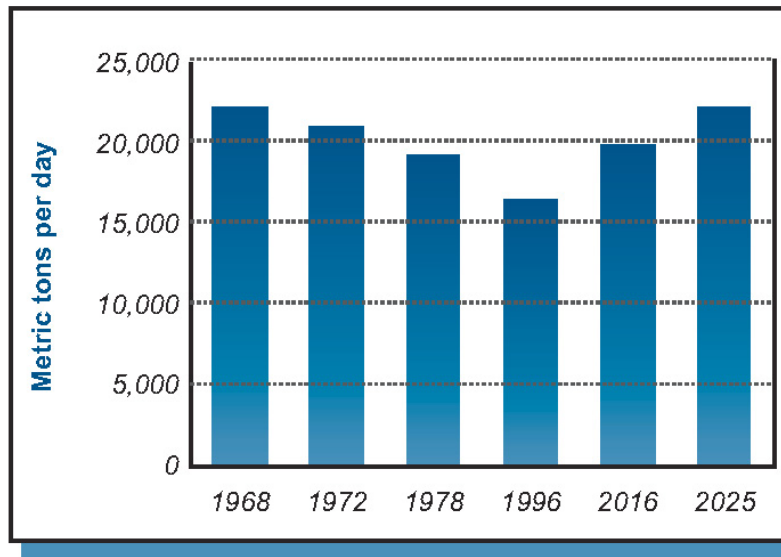


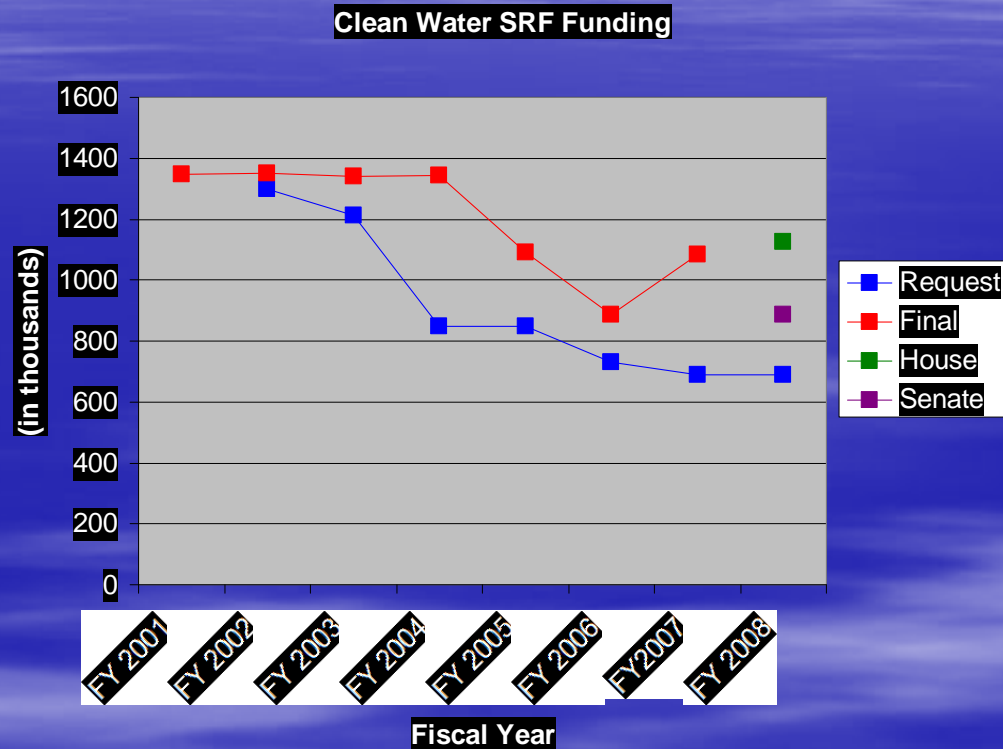
Figure 1-2: Projection of Increase in Biological Chemical Oxygen Demand (BOD)<sup>8</sup>

Source: EPA Report, The Clean Water and Drinking Water Infrastructure Gap Analysis, EPA-816-R-02-020, Sept. 2002

- Given current rate of investment, EPA predicts that sewage pollution will exceed 1968 levels (the highest ever) by 2025
- Upward trend for
  - Beach closings
  - Red tides
  - Dead Zones
  - Coral reef damage
  - Droughts
  - Flooding
  - Loss of aquatic habitat
- Global warming projected to exacerbate negative trends

# Even Though Problems are Growing, SRF Funding is Shrinking

- Clean Water SRF funding is declining
- After initial FY07 improvement, Senate number is almost as low as President's
- Gap estimates are up to \$20 billion annually
- Investment in research and development down 50%



Graph prepared by Heather Taylor, NRDC

# The Solution – More Money, Better Spent

- Substantially increased funding over at least the next 10 years
- Better targeting of resources to achieve water resource protection goals
- Research and development



Brays Bayou restored wetland, Mason Park, Houston, TX: photo courtesy of the Sierra Club's, *Building Better II: A Guide to America's Best New Development Projects* (Nov. 2006)

# Increase Efficiency of SRF Spending

- Fund existing needs, not sprawl
- Fund green infrastructure that achieves more per dollar spent
- Fund highest priorities from an integrated water resource perspective
- Increase funding for research and development on better, cheaper approaches
- Increase public involvement and transparency to get better results



Navy Yard Bioretention.  
*Photo courtesy of LID Center.*

# Increase Funding for Green Infrastructure

- Green infrastructure uses trees and other vegetation in urban areas to manage and treat precipitation naturally rather than collecting it in pipes.
- It uses engineered systems such as green roofs, rain gardens, and vegetated swales to mimic natural functions.
- Green infrastructure often accompanies approaches that capture and re-use stormwater and wastewater.



2<sup>nd</sup> Avenue SEA Street  
Photo courtesy of Seattle Public Utilities.



# Benefits of Green Infrastructure

- Captures sewer overflows
- Filters polluted stormwater
- Recharges groundwater
- Reduces heat island effect
- Improves air quality
- Provides wildlife habitat and recreational space
- Protects stream banks
- Conserves energy
- Prevents flooding
- Improves urban aesthetics
- Increases property values
- Often less expensive than conventional approaches



Maplewood, MN. Photo Courtesy of Bob Newport, US EPA, Region 5

# Fund Existing Needs, not Sprawl



*Courtesy of Center for Livable Communities*

- Development significantly increases runoff, decreases water quality, and reduces groundwater recharge.
- The more pavement, the more pollution – numerous studies document the deleterious impacts of sprawl on rivers, lakes, coastal waters, and groundwater resources
- Yet, in 2006, 19% of the SRF paid for new sewers
- The SRF should not subsidize sprawl – it should pay for itself

# Summary of Recommendations – More Money, Better Spent

- Substantially increase funding for 10+ years
- Clarify eligibilities
- Provide incentives for most beneficial approaches, such as green infrastructure
- End subsidies for sprawl
- Increase public involvement
- Increase R & D funding



Lincoln Mercury Headquarters Green Roof, Irvine, CA. *Photo courtesy of Roofscapes, Inc.*