Making Better Wastewater Infrastructure Investments

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U.S. EPA’s Office of Sustainable Communities
Why Does Wastewater Infrastructure Matter?

- The type of wastewater infrastructure available shapes development patterns
- Centralized wastewater treatment and collection is expensive to build, maintain, and operate
Clean Water State Revolving Fund (CWSRF)

- Established 1988
- Provides communities with low-cost funds for wastewater infrastructure, nonpoint source pollution control, and estuary projects
- Federal government appropriates funds to EPA for formula-based distribution to states
- For every $1 provided by federal government, state SRF programs contribute $0.20
- Over $89.5 billion in assistance provided since 1988
### Other Public Wastewater Infrastructure Spending: New York

<table>
<thead>
<tr>
<th>Programawn</th>
<th>Time Period</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Water State Revolving Fund</td>
<td>2011</td>
<td>$227,170,000 (federal contribution only)</td>
</tr>
<tr>
<td>Rural Utilities Service of U. S. Department of Agriculture</td>
<td>2006-2010 average</td>
<td>$20,334,168</td>
</tr>
<tr>
<td>Community Development Block Grant Program</td>
<td>2001-2010 average</td>
<td>$8,583,964</td>
</tr>
<tr>
<td>The Appalachian Regional Commission</td>
<td>2010</td>
<td>$0</td>
</tr>
<tr>
<td>Water Quality Improvement Project Program of New York</td>
<td>2010</td>
<td>$20,777,598</td>
</tr>
</tbody>
</table>
State Revolving Fund Pilot Program

- Project of the Partnership for Sustainable Communities
- Collaboration between EPA’s Office of Water and Office of Sustainable Communities
- Worked with New York, Maryland, California to explore potential modifications to their state SRF programs that could encourage more sustainable water infrastructure investments
- Intended to provide models for other states
- Considered intended use plans, project priority systems, borrower application processes, and other funding guidelines.
## CWSRF Spending on New Wastewater Infrastructure

### 2006-2010

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vermont</td>
<td>3.01%</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>3.41%</td>
</tr>
<tr>
<td>Virginia</td>
<td>4.27%</td>
</tr>
<tr>
<td>New York</td>
<td>4.58%</td>
</tr>
<tr>
<td>California</td>
<td>5.24%</td>
</tr>
<tr>
<td>Hawaii</td>
<td>5.30%</td>
</tr>
<tr>
<td>Connecticut</td>
<td>5.31%</td>
</tr>
<tr>
<td>Washington</td>
<td>6.51%</td>
</tr>
<tr>
<td>Maryland</td>
<td>6.71%</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>7.90%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Dakota</td>
<td>50.78%</td>
</tr>
<tr>
<td>Puerto Rico</td>
<td>48.57%</td>
</tr>
<tr>
<td>Arizona</td>
<td>45.44%</td>
</tr>
<tr>
<td>Georgia</td>
<td>40.34%</td>
</tr>
<tr>
<td>Delaware</td>
<td>39.41%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>36.87%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>35.89%</td>
</tr>
<tr>
<td>Idaho</td>
<td>35.30%</td>
</tr>
<tr>
<td>Nevada</td>
<td>32.74%</td>
</tr>
<tr>
<td>West Virginia</td>
<td>29.57%</td>
</tr>
</tbody>
</table>
New York

- Initial goals
  - Direct funding to repair/replace existing infrastructure
  - Improve outreach and technical assistance regarding smart growth
  - Encourage projects consistent with community planning goals
- September 2010: **Smart Growth Public Infrastructure Act** requires most state agencies to determine that funded projects are consistent with smart growth criteria
  - Repair/replacement not subject to review under Act
  - Applicant must demonstrate that projects
    - Use or improve existing infrastructure
    - Serve a municipal center
    - Involve community-based planning and collaboration
    - Do not compromise needs of future generations
Maryland

- Overhauled CWSRF Priority Ranking System
- Threshold criteria
  - Project and service area must be in a Priority Funding Area
  - Project must be consistent with local land use plans
- New sustainability criteria
  - Points for serving existing sustainable communities
  - Points for sustainable utility practices incorporated by the project
- Possible next steps
  - Evaluate and refine sustainability criteria
  - Improve coordinated infrastructure planning
  - Improve evaluation of long-term needs
  - Improve decentralized system management
California

- Many complementary efforts
  - Strategic Growth Council
  - State Planning Priorities
  - Water Plan
  - Regional Blueprint Planning Process
- Little competition for CWSRF loans – focus on attracting more applicants with sustainable projects
  - Streamline and tailor application process
  - Develop structure and process for community onsite systems
Other Best Practices

- **Pennsylvania**: points for infill projects
- **New Jersey**: points and reduced interest rate for smart growth projects
- **Iowa**: 0% planning and design loans
- **Texas**: requires robust alternatives analysis
- **Indiana**: sustainable design checklist
- **Ohio/Oregon**: interest rate break to undertake separate nonpoint source or conservation project
- **Connecticut**: points for proactive upgrades
- **Minnesota**: decentralized systems must create dedicated source of revenue for debt service and O&M
- **Maine**: 5% principal forgiveness if asset management plan established
But Federal Spending is Still a Small Part of the Picture

- Most wastewater infrastructure is funded by cities, towns, and other municipalities.
- According to a 2005 National Association of Clean Water Agencies survey of utilities, capital improvements funded by
  - 49% municipal bonds and other types of debt
  - 16% CWSRF loans
  - 16% from user charges
  - 19% from other sources.
Lessons for any Wastewater Infrastructure Investment

- Focus on repairs and upgrades to existing infrastructure
- Adopt internal and cross-sector planning processes
  - Alternatives analysis including decentralized and green infrastructure solutions
  - Coordination with other infrastructure spending
- Preserve open space
- Ensure adequate revenues to finance, operate, maintain, and replace essential infrastructure assets
- Ensure adequate technical, managerial, and financial capacity of utilities
More Information

New York
http://www.nysefc.org/AboutUs/SRFsustainabilityInitiative.aspx

Maryland
http://www.mde.state.md.us/programs/Water/QualityFinancing/Documents/
  www.mde.state.md.us/CW%20DW%20draft%20IPPS/2010%20CW
  %20IPPS_Final.pdf

California
http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/

Email: Kramer.melissa@epa.gov