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## **APPENDIX A**

### **TESTING OF THE GUIDANCE FOR SCREENING AND RANKING COMBINED SEWER SYSTEMS**

EPA tested the usability and effectiveness of the screening and ranking process for CSSs using information available for 13 CSSs in 11 cities and 7 EPA Regions. All of the CSSs evaluated were identified previously as causing serious water quality impacts. For most of these systems, remediation is already underway or being planned. In brief, the evaluation determined that the screening and ranking process described in this guidance provides useful information that is relevant for ranking CSO problems of the 13 CSSs examined and is relatively easy to apply.

#### **A.1 Methods**

Table A-1 presents the locations of the CSSs examined in this evaluation and the source of each major category of information used. EPA Headquarters and Regional offices provided applicable NPDES permits, NPDES permit applications, enforcement and compliance reports, 305(b) reports, and other relevant information. State agencies also were contacted to obtain additional needed information that was not available from EPA. Generally, enough information was compiled by this point to allow complete evaluation of most CSSs through the first six ranking criteria. In some cases, however, more detailed information had to be obtained from the permittees and, sometimes, their consultants.

#### **A.2 Results and Conclusions**

Information in NPDES permits and in 305(b) reports, which are often available from EPA Regional offices, was sufficient to complete the screening process for some CSSs. In all cases but one, NPDES permits were useful in identifying specific CSO outfall locations for each CSS. The 305(b) reports adequately identified specific use attainability problems in Connecticut, Maine, Massachusetts, Michigan, New York, Oregon, and Pennsylvania, but CSOs were not always shown as likely causes. Additional information about CSSs in Maine, Pennsylvania, and California was necessary to confirm the occurrence of surface water impacts from CSOs or other CSO-related problems. Using all ranking criteria generally required information from EPA, State, and municipal sources (Table A-1).

**Table A-1. Sources From Which Needed Information Was Acquired for Screening and Ranking Process Criteria<sup>a</sup>**

City	Sources for Screening	Sources for Ranking <sup>a</sup>						
		Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Criterion 6	Criterion 7
Region 1								
Hartford, CT	E	E	S	S <sup>b</sup>	S <sup>b</sup>	S <sup>b</sup>	S <sup>b</sup>	
Bridgeport, CT	E	E	S	E	E	S	S	
South Portland, ME	S	S	S	S	S	S	P	
Gloucester, MA	E	E	S	E	E	S	S	
Holyoke, MA	E	E	E	E	S	E	E	
Region 2								
Brooklyn, NY	E	P	P	P	P	P	C	
Region 3								
Philadelphia, PA NPDES Permit #0026662	E	E	E	E	E	E	P	
Philadelphia, PA NPDES Permit #0026689	E	E	E	E	E	E	P	
Philadelphia, PA NPDES Permit #0026671	E	S	S	E	E	E	P	
Region 4								
Chattanooga, TN	S	S	S	S	P	S	S	
Region 5								
Inkster, MI	E	E	E	S	C	S	C	
Region 9								
Sacramento, CA	E	E	E	E	E	S	S	E
Region 10								
Portland, OR	E	E	P	P	P	S	P	

Key: E = EPA Regional Offices  
 S = State Agencies  
 P = Permittees  
 C = Consultants

- <sup>a</sup> If information for a criterion was obtained from more than one source, only the most local source is given. Consultant reports obtained from the EPA Regional office are identified by E and those obtained from a State agency are identified by S.
- <sup>b</sup> This information was acquired from a state-chartered utility group, which serves a number of municipalities.
- <sup>c</sup> USGS offices in individual States provided stream flow information for municipalities that discharge to flowing waters.

Table A-2 summarizes the results of each screening and each ranking process for the 13 CSSs. The test of this process suggested that the information most frequently needed to assess CSSs seems to be readily available from the EPA Regional or State offices.

The screening and ranking process as described in this guidance was reasonably easy to follow and provided useful information for ranking the severity of problem associated with CSSs. The process proved general enough to allow assessment of all CSO problems encountered. In addition, it helped bring together valuable information and provided a useful method to evaluate and rank environmental impacts typically associated with CSOs. All CSSs evaluated during this test were identified previously as having CSO problems. By applying the techniques described in this guidance, all CSSs were ranked for priority permitting, receiving scores ranging from a high of 555 to a low of 250 points.

Table A-2. Summary of Results Obtained in Applying the Screening and Ranking Process to 13 CSSs

City	Ranking Scores							Total Points
	Criterion 1	Criterion 2	Criterion 3	Criterion 4	Criterion 5	Criterion 6	Criterion 7	
Hartford, CT	250	75	10	10	0	0	0	345
Bridgeport, CT	250	75	60	30	0	25	0	440
South Portland, ME	200	0	100	30	0	0	0	330
Gloucester, MA	200	0	100	30	0	25	0	355
Holyoke, MA	250	75	10	30	0	0	0	365
Brooklyn, NY	250	150	100	30	0	25	0	555
Philadelphia, PA, #1	250	150	100	30	0	0	0	530
Philadelphia, PA, #2	250	150	100	30	0	0	0	530
Philadelphia, PA, #3	200	150	100	30	0	0	0	480
Chattanooga, TN	250	0	20 <sup>a</sup>	10	0	25	0	305
Inkster, MI	250	75	60 <sup>a</sup>	50	0	0	0	435
Sacramento, CA	0	0	40 <sup>a</sup>	10	0	0	200	250
Portland, OR	250	75	10 <sup>a</sup>	10	0	0	0	345

<sup>a</sup> Values reflect assumptions regarding the energy levels of the receiving waters.

Note: The cities analyzed in this test were cities with known CSO problems. Many cities may experience point totals significantly lower than these.

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