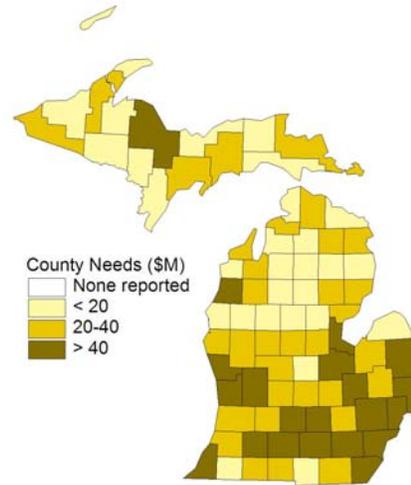




Michigan Clean Watersheds Needs Survey 2008

The Clean Watersheds Needs

Survey (CWNS) is a comprehensive assessment of needs¹ to meet the water quality and water-related public health goals of the Clean Water Act (CWA). States and the U.S. Environmental Protection Agency (EPA) conduct the CWNS every four years under CWA Section 516 (b). Michigan documented needs totaling \$7.0 billion in 2008. This is a 15 percent decrease from the \$8.3 billion in needs documented in 2004.



Documented Needs in Michigan

Type of Need	Needs (2008 Dollars, Millions)		
	2004	2008	Percent Change
Wastewater treatment	\$1,099	\$891	-19%
Pipe repair and new pipes	\$894	\$959	7%
Recycled water distribution	nr ^a	nr	0%
Combined sewer overflow correction	\$5,137	\$1,555	-70%
Total Wastewater Treatment Needs	\$7,130	\$3,405	-52%
Conveyance infrastructure	n/a	\$2	n/a
Treatment systems	n/a	\$202	n/a
Green infrastructure	n/a	\$31	n/a
General stormwater management	\$127	\$75	-41%
Total Stormwater Management Needs^b	\$127	\$310	144%
Agriculture (cropland) best management practices (BMPs)	\$43	\$90	109%
Agriculture (animals) BMPs	\$9	\$21	133%
Silviculture (forestry) BMPs	\$13	\$1	-92%
Ground water protection: unknown source BMPs	nr	<\$0.5	n/a
Marinas BMPs	nr	nr	0%
Resource extraction BMPs	<\$0.5	\$2	>1,000%
Brownfields remediation	nr	nr	0%
Storage tank remediation	\$663	\$2,974	349%
Sanitary landfills BMPs	nr	\$15	n/a
Hydromodification (Water resource restoration and protection)	\$305	\$216	-29%
Other estuary management activities ^c	n/a	nr	n/a
Total Nonpoint Source Control Needs^{b,d}	\$1,033	\$3,319	221%
Total Decentralized Wastewater Treatment Needs^{b,d}	\$2	\$1	-50%
Total Needs	\$8,292	\$7,035	-15%

^aNot reported; ^bActual needs may be higher, since documenting these needs is difficult; ^cIn 2004, Other Estuary Management Needs were reported under Separate State Estimates (SSEs); ^dNot included in Official Needs in the Report to Congress.

¹ Documented needs in the CWNS include the unfunded capital costs of projects as of January 1, 2008 that address a water quality or a water quality-related public health problem existing as of January 1, 2008, or expected to occur within the next 20 years; and meet the seven CWNS documentation criteria. All needs are in January 2008 dollars.



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Wastewater Treatment Facilities

The enactment of the Clean Water Act (CWA) in 1972 resulted in dramatic improvements in the:

- Number of wastewater treatment plants.
- Percentage of the population served by wastewater treatment plants.
- Quality of effluent treatment from wastewater treatment facilities.

In 2008, 72% of Michigan residents received centralized wastewater treatment services at the secondary, advanced, or no discharge treatment level, compared to 22% in 1972.

Number of Centralized Treatment Facilities and Population Served									
Treatment Level	Number of Facilities			Population Served					
	1972	2008	Projected ^a	%Total Population			%Total Population		
				1972	1972	2008	2008	2008	Projected ^a
Less than Secondary	35	0	0	957,000	11	0	0		0
Secondary	71	178	179	556,000	6	485,747	5		520,160
Advanced	41	155	155	1,419,000	16	6,620,924	66		6,676,330
No Discharge	0	58	59	0	0	99,241	1		116,657
Total	147	391	393	2,932,000	32	7,205,912	72		7,313,147

^aNumber of facilities and population served if all needs documented in the CWNS 2008 are met.

Small Communities

In Michigan, small community wastewater facilities serve 16% of the population and comprise 3% of total wastewater treatment and collection needs. EPA small community support information is available at:

www.epa.gov/owm/mab/smcomm

Reported Needs for Facilities in Small Communities				
Population	Facilities		Needs (2008 Dollars, Millions)	
	2004	2008	2004	2008
0-999	4	7	\$7	\$18
1,000-3,499	8	12	\$64	\$49
3,500-10,000	7	7	\$24	\$34
Total	19	26	\$94	\$102

Visit www.epa.gov/cwns for more information including:

- Detailed Reports to Congress
- Other state fact sheets
- Maps, charts, and data downloads for projects, facilities, watersheds, counties, congressional districts, cities, states, and regions