



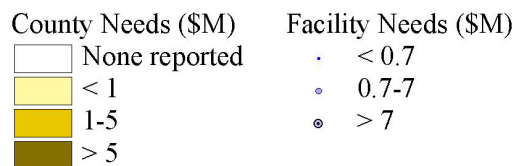
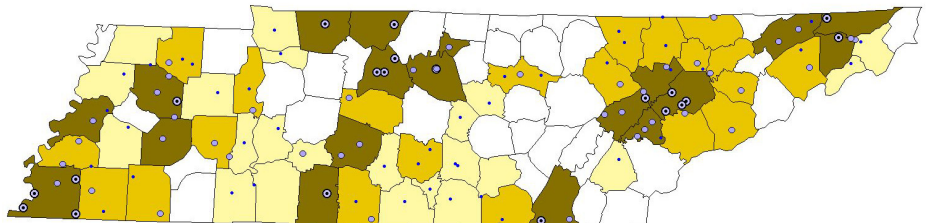
# Tennessee

## Clean Watersheds Needs Survey 2004

### The Clean Watersheds Needs

**Survey** (CWNS) is a comprehensive assessment of needs<sup>1</sup> 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 Sections 205(a) and 516 (b)(1).

Tennessee reported needs totaling \$1.0 billion in 2004. This is a fifty-four percent increase from the \$0.7 billion in needs reported in 2000.



### Reported Needs in Tennessee

Type of Need	Needs (2004 Dollars, Millions)		
	2000	2004	Percent Change
Wastewater treatment plant improvements	\$124	\$228	84%
Wastewater collection and conveyance improvements	\$277	\$524	89%
Combined sewer overflow correction	\$272	\$285	5%
Stormwater management controls	nr <sup>b</sup>	nr	n/a
Home sewage treatment system improvements	n/a	<\$0.5	n/a
Recycled wastewater distribution <sup>a</sup>	n/a	nr	n/a
<b>Total Wastewater Treatment Needs</b>	<b>\$673</b>	<b>\$1,037</b>	<b>54%</b>
Agriculture best management practices (BMPs)	nr	nr	n/a
Forestry BMPs	nr	nr	n/a
Residential/ business development BMPs	nr	nr	n/a
Ground water protection BMPs	nr	nr	n/a
Marinas and boating BMPs	nr	nr	n/a
Mining and quarrying BMPs	nr	nr	n/a
Contaminated industrial site (Brownfield) remediation	nr	nr	n/a
Leaking storage tank remediation	nr	nr	n/a
Sanitary landfill BMPs	nr	nr	n/a
Water resource restoration and protection	nr	nr	n/a
<b>Total Nonpoint Source Pollution Control Needs</b>	<b>nr</b>	<b>nr</b>	<b>n/a</b>
<b>Total Needs</b>	<b>\$673</b>	<b>\$1,037</b>	<b>54%</b>

<sup>a</sup> The CWNS did not collect data on recycled water distribution in 2000

<sup>b</sup> Not reported

<sup>1</sup> Costs in the CWNS are generally eligible for funding under the Clean Water Act State Revolving Fund (CWSRF). All needs are capital needs except stormwater management needs, which include program development costs. The survey is a “snapshot” of data and needs; needs are as of January 1, 2004, and all costs are in January 2004 dollars.



# Tennessee

## Clean Watersheds Needs Survey 2004

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.
- Level of effluent treatment from wastewater treatment plants.

In 2004, 60% of Tennessee residents received centralized wastewater treatment services at the secondary, greater than secondary, or no discharge treatment level, compared to 20% in 1972.

Number of Centralized Treatment Facilities and Population Served								
Treatment Level	Number of Facilities			Population Served				
	1972	2004	Projected <sup>a</sup>	1972	% Total Population 1972	2004	% Total Population 2004 <sup>b</sup>	Projected <sup>a</sup>
Less than Secondary	29	0	0	393,000	9.4%	0	0%	0
Secondary	80	157	161	354,000	8.5%	2,007,226	34.0%	2,514,147
Greater than Secondary	102	78	77	469,000	11.2%	1,519,925	25.8%	1,909,373
No Discharge	0	7	8	0	0%	10,646	0.2%	20,025
<b>Total</b>	<b>211</b>	<b>242</b>	<b>246</b>	<b>1,216,000</b>	<b>29.0%</b>	<b>3,537,797</b>	<b>60.0%</b>	<b>4,443,545</b>

<sup>a</sup>Number of facilities and population served if all needs documented in the CWNS 2004 are met.

<sup>b</sup>The remaining population is largely served by home and cluster sewage treatment systems. (Number of facilities from Tables C-7 and C-8 of the CWNS 2004 Report to Congress)

### What are treatment levels?

- *Less than secondary treatment* removes solids by filtration, sedimentation, and chemical coagulation.
- *Secondary treatment* removes most of the organic matter in wastewater using biological processes.
- *Greater than secondary treatment* removes additional organic matter, nitrogen, phosphorus, or toxics.
- *No discharge facilities* include facilities that reuse wastewater, discharge to an underground aquifer, or dispose of wastewater via methods such as irrigation or evaporation.

The CWA goals of fishable, swimmable and drinkable waters require secondary or greater treatment.

Small communities often need additional assistance to meet CWA requirements, because they often lack adequate financing, training, and economies of scale to efficiently manage and maintain wastewater treatment systems.

In Tennessee, small community wastewater facilities serve 11% of the population and comprise 7% of total wastewater treatment and collection needs. EPA small community support information is available at: [www.epa.gov/owm/mab/smcomm](http://www.epa.gov/owm/mab/smcomm)

Population	Facilities		Needs (2004 Dollars, Millions)	
	2000	2004	2000	2004
< 1,000	3	12	\$3	\$13
1,000-3,499	11	29	\$19	\$40
3,500-10,000	4	11	\$19	\$21
<b>Total</b>	<b>18</b>	<b>52</b>	<b>\$41</b>	<b>\$74</b>

Visit [www.epa.gov/cwns](http://www.epa.gov/cwns) for more information including:

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