

Clean Watersheds Needs Survey (CWNS) 2008

Report to Congress & Internet Data Access

Web Seminar
June xx, 2010



Web Seminar Overview

- 1) CWNS 2008 Report to Congress
Overview (Slides 3-11)
- 2) CWNS 2008 Report to Congress
Main Results (Slides 12-28)
- 3) Internet Access to CWNS 2008 Data
(Slides 29-37)
- 4) State Fact Sheets & Regional / EPA
Program Summaries (Slides 38-40)



1) Report to Congress

Overview



1) What is the Report to Congress ?

- ❖ Required by Clean Water Act Sec. 516
- ❖ CWNS 2008 is 15th Report since 1972
- ❖ Focus – Capital Needs to meet CWA water quality objectives
 - Wastewater Treatment Plants
 - Wastewater Collection, Discharge, Reuse Pipes
 - Combined Sewer Overflow Projects
 - Stormwater Management
 - Decentralized Wastewater Treatment
 - Nonpoint Source Control



Needs Definitions

❖ Needs:

The unfunded capital costs -- as of January 1, 2008 -- of a project that addresses an existing or projected (within next 20 years) water quality or public health problem

❖ “Documented” Needs:

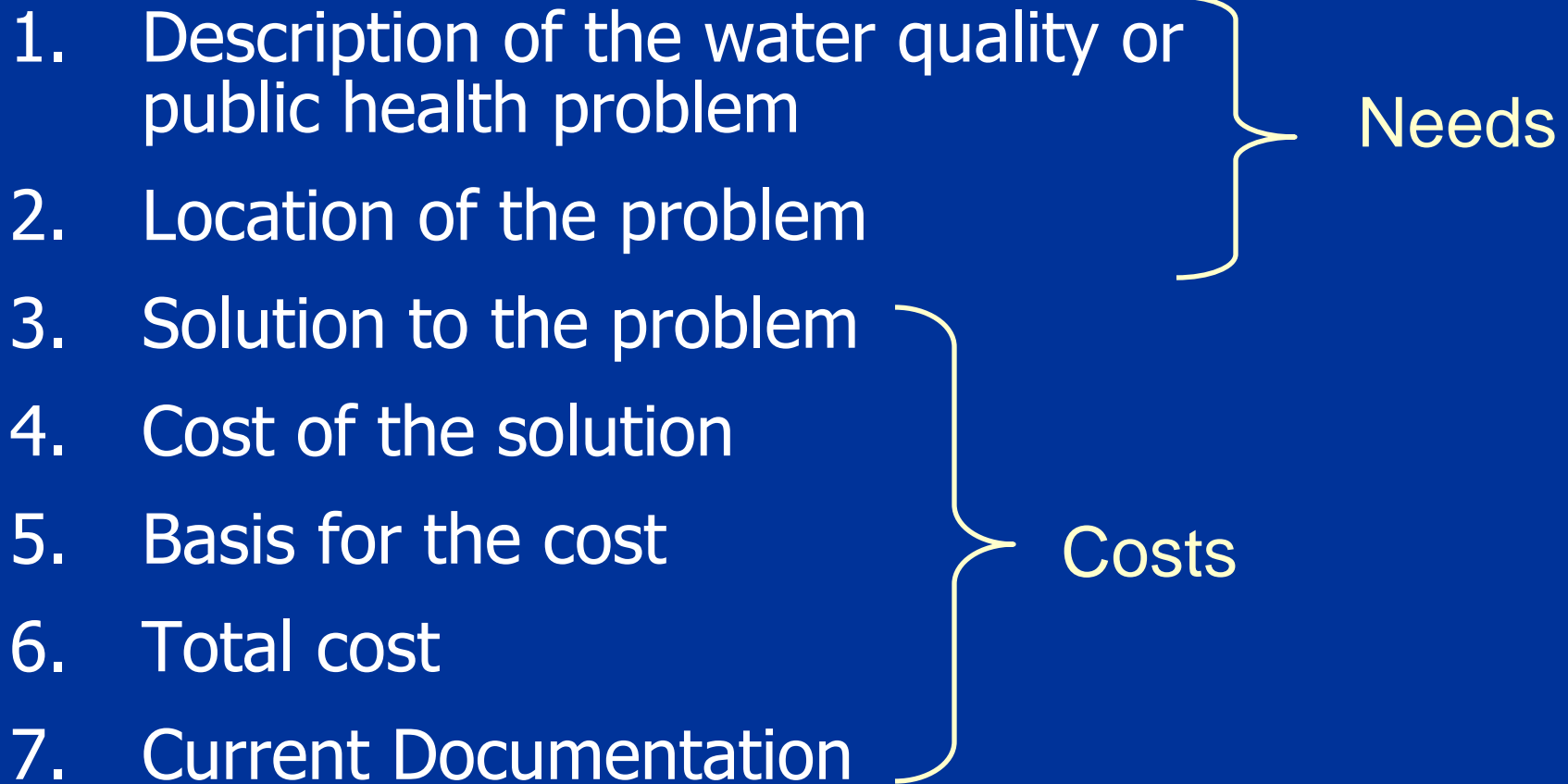
Meet CWNS documentation criteria and fall within CWNS Categories

❖ “Official” Needs:

The subset of documented needs that are publicly owned treatment works as noted in Clean Water Act Section 516(B)(1)(b)



Documentation Criteria for "Official Needs"

1. Description of the water quality or public health problem
 2. Location of the problem
 3. Solution to the problem
 4. Cost of the solution
 5. Basis for the cost
 6. Total cost
 7. Current Documentation
- Needs
- Costs
- 



CWNS 2008 Categories

- I: Secondary wastewater treatment
- II: Advanced wastewater treatment
- III-A: Infiltration/inflow correction
- III-B: Sewer replacement/rehabilitation
- IV-A: New collector sewers appurtenances
- IV-B: New interceptor sewers and appurtenances
- V: Combined sewer overflow correction
- VI: Stormwater management programs
- VI-A: Stormwater Conveyance Infrastructure
- VI-B: Stormwater Treatment Systems
- VI-C: Green Infrastructure
- VI-D: General Stormwater Management
- X: Recycled water distribution
- XII: Decentralized wastewater treatment systems



CWNS 2008 Categories

Category VII - Nonpoint Source Pollution Control

VII-A: Agriculture (cropland)

VII-B: Agriculture (animals)

VII-C: Silviculture

VII-E: Ground Water Protection

VII-F: Marinas

VII-G: Resource Extraction

VII-H: Brownfields

VII-I: Storage Tanks

VII-J: Sanitary Landfills

VII-K: Hydromodification

VII-M: Other Estuary Management Activities



Other CWNS Data Types

- ❖ Location and contact information
- ❖ Permit information
- ❖ Treatment plant current & projected data
 - Populations served
 - Design and actual annual flow
 - Effluent treatment levels
- ❖ Decentralized system and wastewater collection system populations served
- ❖ Wastewater Treatment Unit Processes



CWNS Data Uses

- ❖ Potential allotment of CWSRF funds
- ❖ Provides information to Congress and state legislatures for budget and policy purposes
- ❖ Informs the public
- ❖ Contributes to academic research
- ❖ Assists with program implementation
 - Loading analyses, NPDES permit writing, SRF Project Prioritization
- ❖ Informs project prioritization and programmatic planning at the state and national levels



2008 Report Timeline

- ❖ CWNS Workgroup Sep 05 – Dec 07
- ❖ Data Entry Feb 08 – Mar 09
- ❖ Data Finalized Jun 2009
- ❖ End of Survey Meeting Jun 8-10, 2009
- ❖ Report Reviews Jun – Aug 2009
 - State / Regional CWNS Coordinators
 - OWM, OCFO, OGC, OCIR, OW, OPEI
- ❖ OMB Review Sep 2009 – Apr 2010
- ❖ OW, OCIR, OPA Clearance Apr – May 2010
- ❖ Report to Congress Jun 2010



2) Report to Congress

Main Results

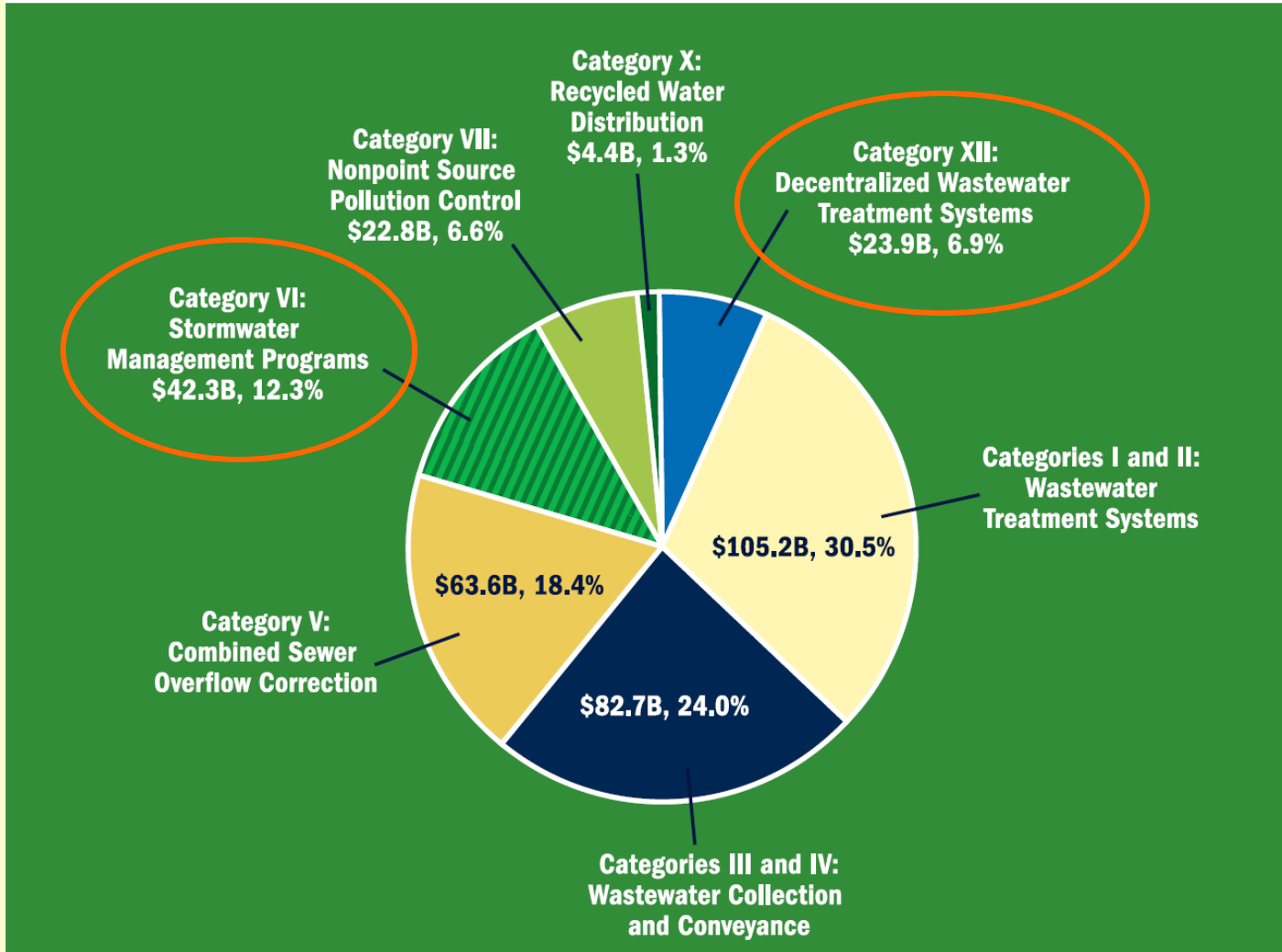


Report Results

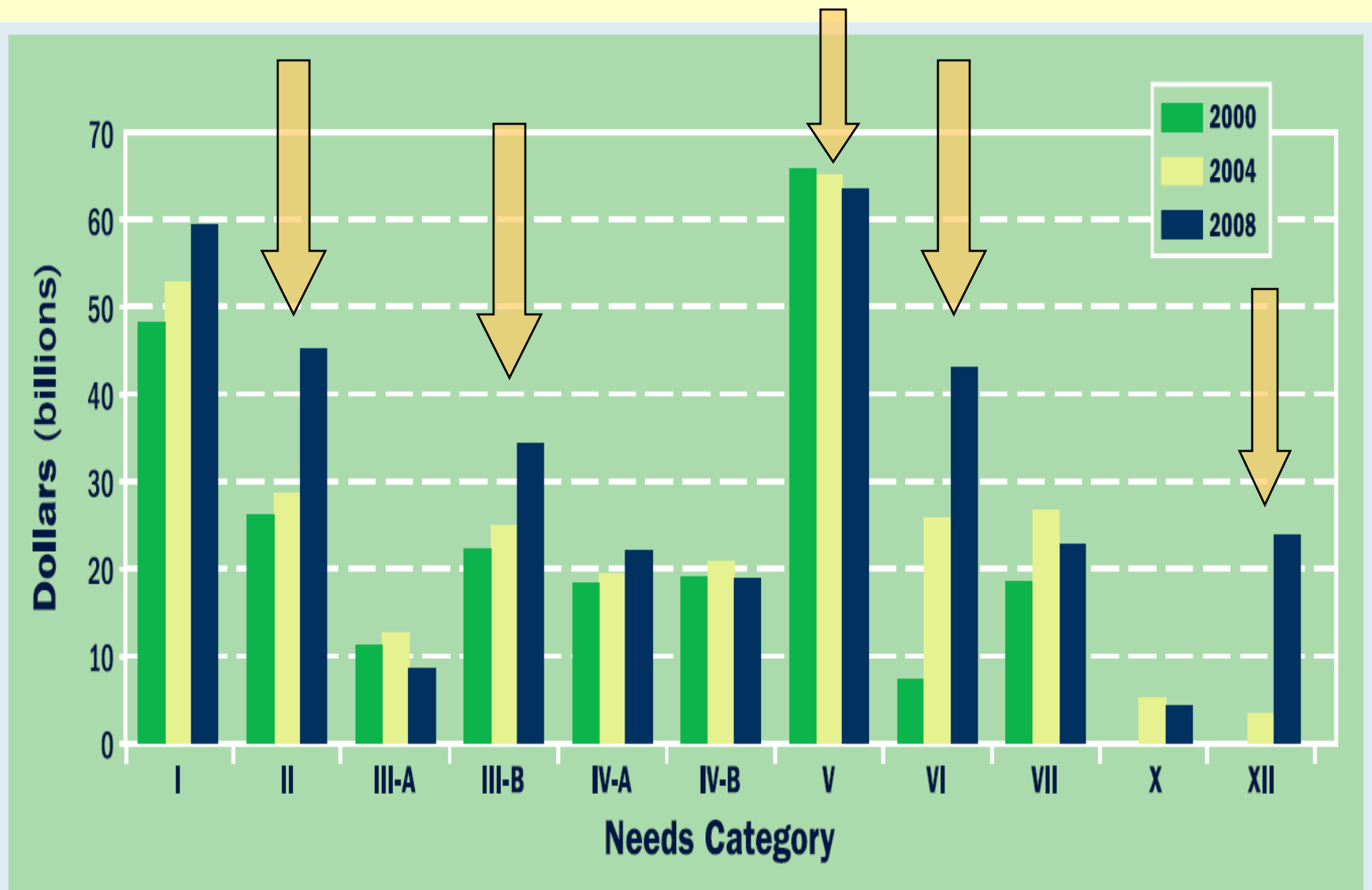
- ❖ Official needs of \$298.1 billion
 - Total Documented Needs of \$344.8 Billion
(Increase of \$59.4 B or 21% over 2004 needs)
- ❖ Largest Increases:
 - \$23.2 B in Wastewater Treatment (Cat I & II)
 - \$20.3 B in Decentralized (Cat XII)
 - \$16.9 B in Stormwater (Cat VI)
- ❖ Treatment and people highlights: Since 2004 ...
 - An additional 19.2 million people receive central treatment (now 74% of U.S.)
 - An additional 3.4 million people are served by non-discharging facilities (now 6% of U.S.)



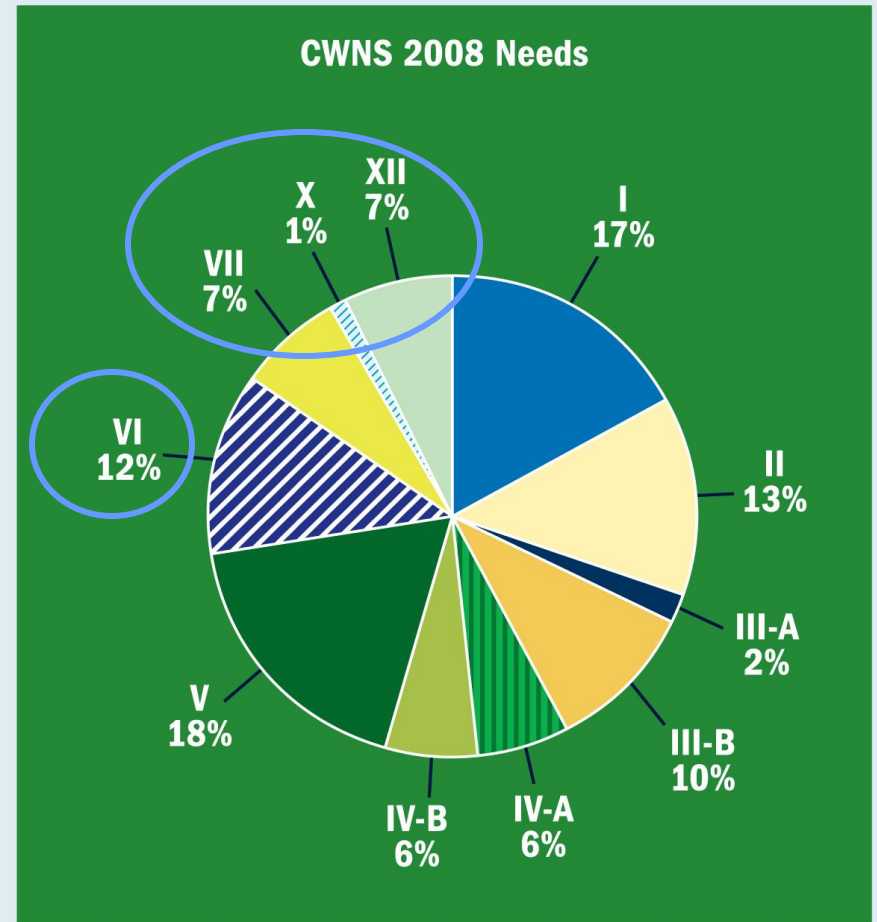
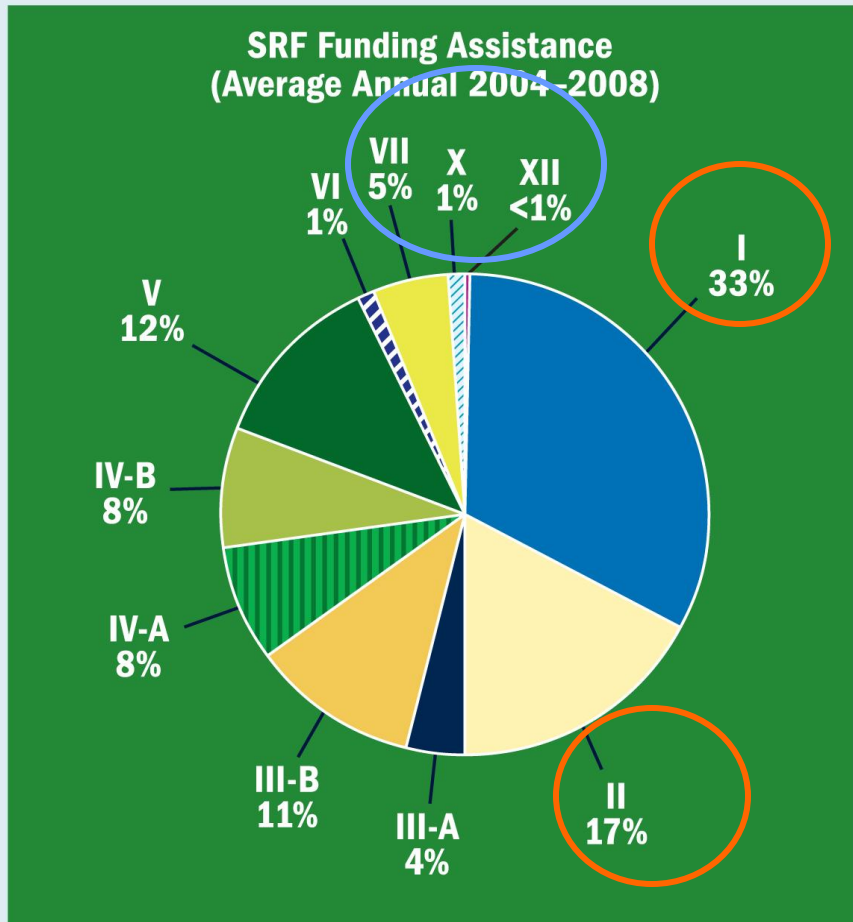
Documented Needs by Category



Documented Needs changes since 2000



Documented Needs vs. SRF Funding



Documented Needs by State

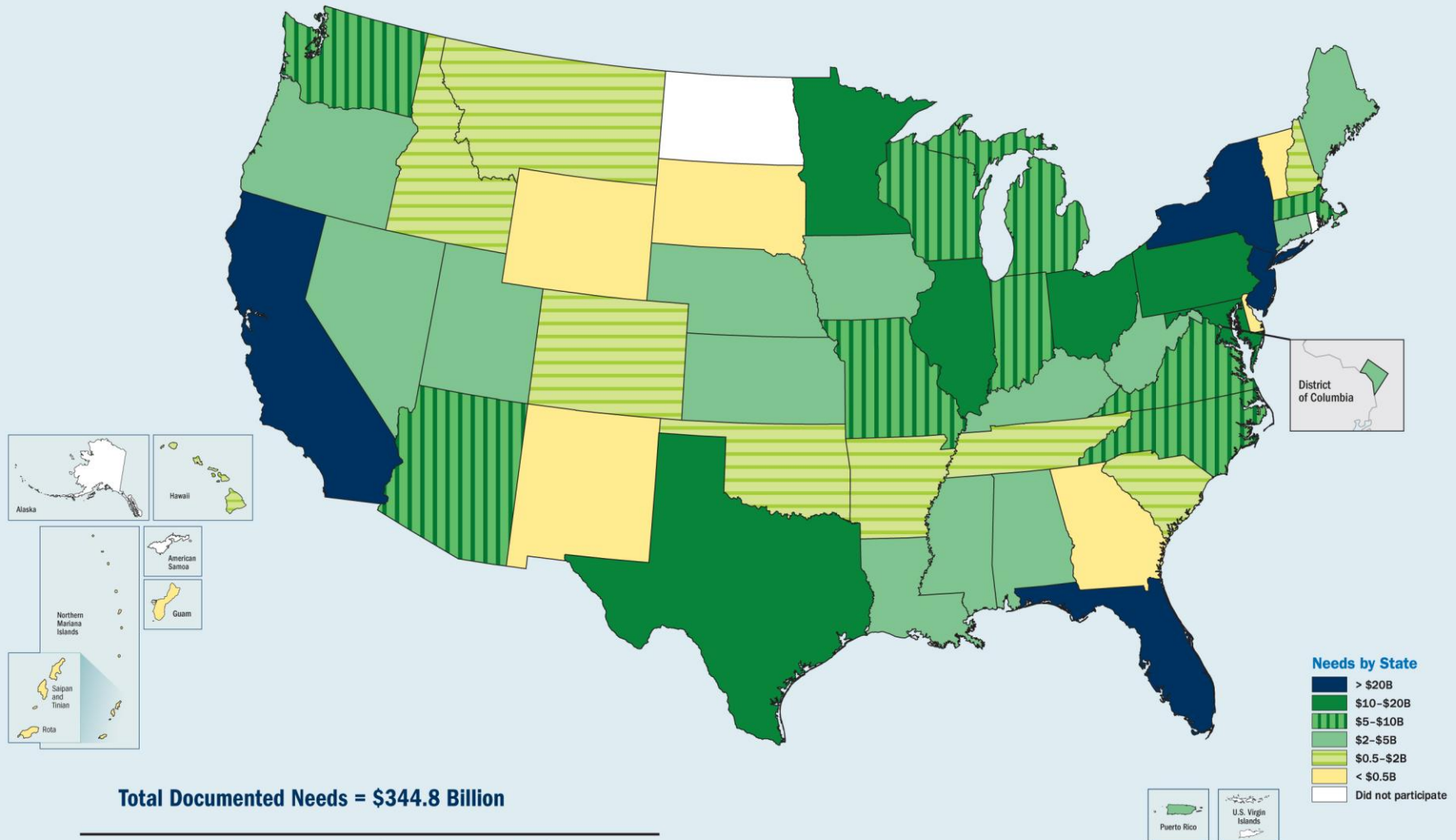


Figure 2-2. Distribution of total documented needs by State (January 2008 dollars in billions).

Report Results

WW Treatment (Cat. I & II)

- ❖ Total Needs: \$105.1 B, \$23.2 B increase since 2004 (\$16.2 B increase for Advanced Treatment, Cat II)
- ❖ Reasons for Increases
 - Accommodate Growth
 - Repair / Replace Aging Infrastructure
 - More Protective Water Quality Standards (Advanced Treatment)
 - Increased State Documentation Efforts
- ❖ \$9.4 B to \$31.0 B in Needs for Nutrient Removal
 - Nitrogen \$2.3 B to \$17.8 B
 - Phosphorous \$0.4 B to \$17.2 B
 - Ammonia \$0.5 B to \$12.8 B
- ❖ \$14.9 B to \$35.0 B to Achieve BOD \leq 20 mg/l



Report Results

Pipes (Cat. III & IV)

- ❖ Total Needs: \$82.5 B, \$5.0 B increase since 2004
- ❖ Reasons for Increases
 - Increased State Efforts, More Documents Available
 - Accommodate Growth
 - Repair & Replace Aging Infrastructure
- ❖ 51% of Pipe Needs are now for Repairs (Cat III), up from 48% and 46% in 2004 and 2000
- ❖ \$18.3 B (44%) of Pipe Needs related to addressing sanitary sewer overflows



Report Results

Recycled Water Pipes (Cat. X)

- ❖ Total Needs: \$4.4 B, \$0.7 B decrease since 2004
- ❖ Reasons for decreases
 - Limits on State Resources & Documentation
 - Difficulty Coordinating with Drinking Water Programs
- ❖ Some increases due to States recognizing benefits in meeting water quality standards, accommodating population growth, and saving money



Report Results

CSOs (Cat. V)

- ❖ Total Needs: \$64.8 B, \$0.1 B decrease since 2004
- ❖ Reasons for Decreases
 - Insufficient documentation
 - Changes from cost curve to documented costs
 - Funding for projects since 2004
- ❖ 219 Long Term Control Plans (up from 144 in 2004)



Report Results

Stormwater (Cat. VI)

- ❖ Total Needs: \$42.3 B, \$16.9 B increase since 2004
- ❖ Reasons for Increases
 - Increased state efforts
 - New Green Infrastructure Needs (\$17.4 B)
- ❖ Needs by Regulated Status
 - Phase 1 MS4 Needs: \$ 11.2 B
 - Phase 2 MS4 Needs: \$ 21.6 B
 - Non Traditional MS4 Needs: \$ 0.2 B
 - Unregulated Community Needs: \$ 9.3 B
- ❖ 82% of Needs are not specified in NPDES permits, and therefore are eligible for NPS grant funding assistance
- ❖ Still under-reported: Needs reported for 1,560 out of 7,080 regulated communities



Report Results

Decentralized (Cat. XII)

- ❖ Total Needs: \$23.9 B, \$20.3 B increase since 2004
- ❖ New growth accounted for \$11.2 B in Needs
- ❖ Reasons for increases:
 - Increased state efforts
 - Increased use of innovative methods
 - Increased access to data (state permit databases)
 - Increased coordination with public health agencies
- ❖ Still under-reported: Only 50% of national onsite population accounted for in CWNS



Report Results

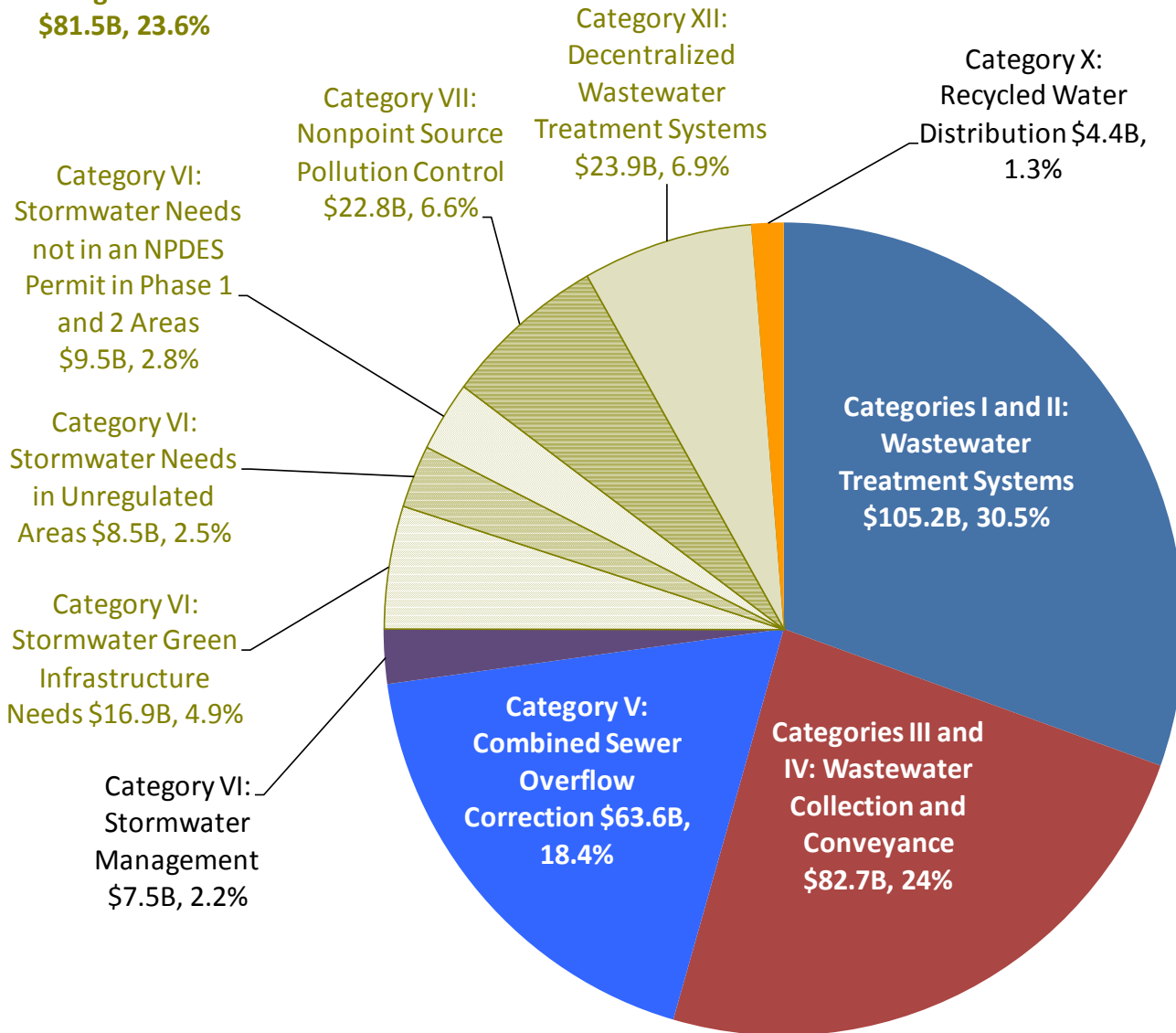
NPS Control (Cat. VII)

- ❖ Total Needs: \$22.8 B, \$4.3 B decrease since 2004
- ❖ Reasons for decreases:
 - Limits on state time & access to documents
 - Limited participation from state NPS programs
 - Lack of EPA NPS program staff on CWNS Outreach
 - Lack of certainty on how NPS needs would be presented in the CWNS 2008 Report to Congress
- ❖ Still under-reported: Many subcategories not reported for many States



Section 319 NPS Grant Eligible Needs

319 Eligible Needs
\$81.5B, 23.6%



Report Results

Small Community Needs

- ❖ Small Community = Population < 10,000
- ❖ Total Needs: \$27.4 B, \$7.3 B increase since 2004
- ❖ Reasons for Increases
 - Increased use of Small Community Form
 - Innovative methods (PA Gap, state surveys/datasets)
- ❖ 73% of Wastewater Collection & Treatment Facilities serve small communities (totaling 29.3 million people, 10% of the population)



Report Results

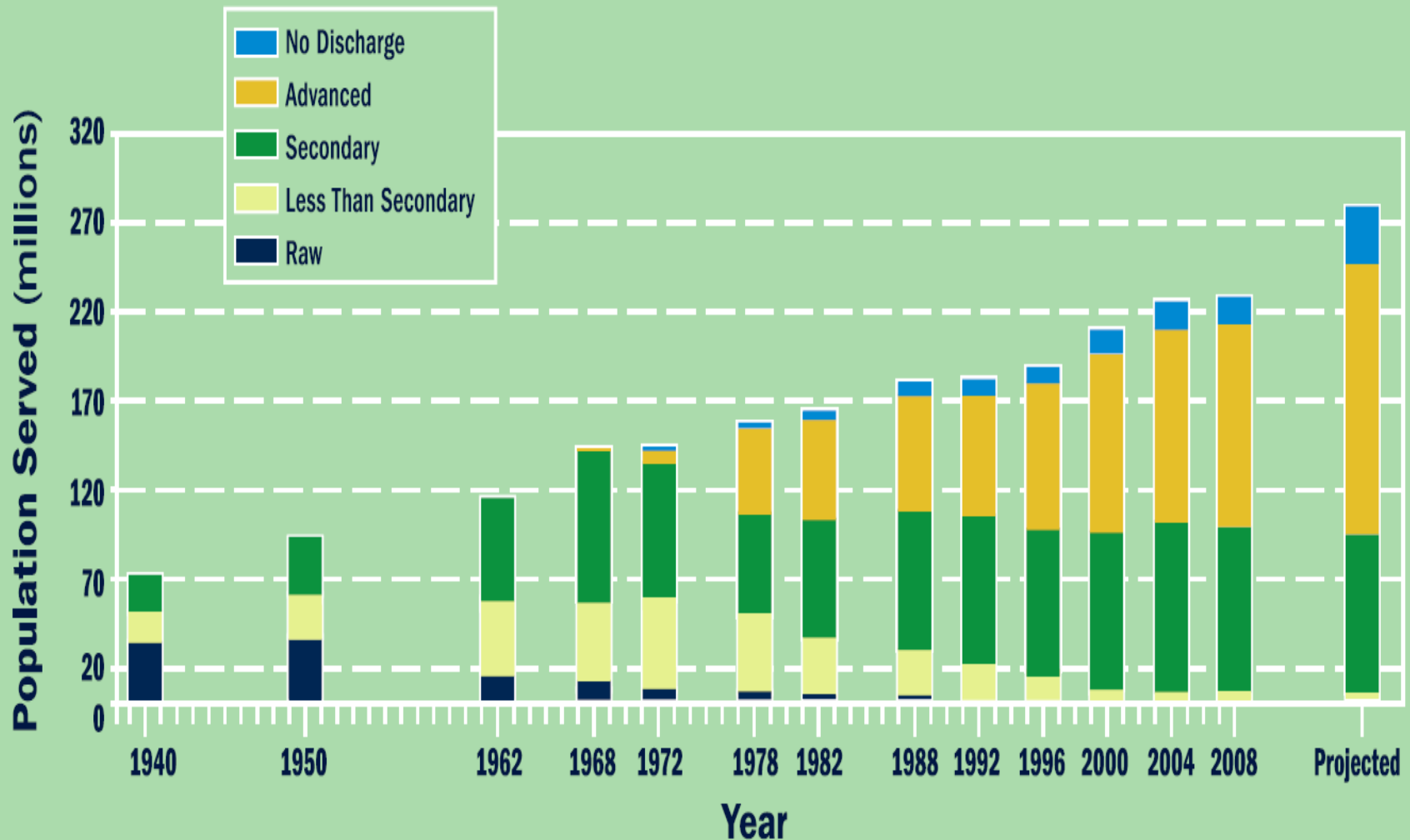
Large Community Needs

- ❖ Needs for Census' Urbanized Areas: \$205.5 B, \$47.1B increase since 2004
- ❖ 100 facilities w/ Cat I-IV needs increases of greater than \$100 M

These 100 facilities have \$58.8 B (30%) in Cat I-IV needs, and serve 14% of the population



Progress in Providing Treatment



3) Internet Data Reports



Internet Reports in Oracle Apex Software

- ❖ Facility Fact Sheets
- ❖ Summary Reports
 - Bar Charts & Pie Graphs
- ❖ Detail Reports
 - Tables from customizable queries
- ❖ National & State Data Downloads
- ❖ Data Dictionary and Online Help



Overview

The screenshot shows a Windows Internet Explorer browser window displaying the EPA CWNS 2008 Reports Online Help page. The browser title bar reads "CWNS2008ReportHelp - Windows Internet Explorer provided by EPA". The page content includes a navigation menu on the left, a main heading "CWNS 2008 Reports", and a "Contents" section with a list of links. The browser's status bar at the bottom shows "(50 items remaining) Downloading picture https://deacon.rtpnc.e" and "Unknown Zone".

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CWNS 200

[Facility Fact Sheet](#)

Access Data
Select a state and click

State:
(AK, AS, ND, RI and VI did n

CWNS 2008 Reports – Online Help

CWNS 2008 Reports

Contents

- [1. Introduction](#)
 - [1.1 Overview](#)
 - [1.2 Previous Surveys](#)
 - [1.3 Scope of CWNS 2008 Data Collection](#)
 - [1.4 Scope of CWNS 2008 Reports](#)
- [2. Navigating CWNS 2008 Reports](#)
 - [2.1 Entering CWNS 2008 Reports](#)
 - [2.2 Application Navigation](#)
 - [2.2.1 Tabs](#)
 - [2.2.2 Breadcrumbs and links](#)
 - [2.3 Resources](#)
- [3. Facility Fact Sheet Tab](#)
- [4. Summary Reports](#)
- [5. Detail Reports](#)
- [6. Data Downloads](#)
- [Appendices](#)

(50 items remaining) Downloading picture https://deacon.rtpnc.e | Unknown Zone | 100%

Facility Fact Sheet – Basic Search

Discharge Information

Method	Present (Flow Portion %)	Projected (Flow Portion %)
Outfall To Surface Waters	Y	Y

Effluent Information

	Present	Projected
Treatment Level	Secondary	Secondary
Disinfection	Y	Y

Pollution Problems & 303(d) Impaired Waters Information

No information reported.



















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

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

Facility Fact Sheet – Advanced Search

Facility Fact Sheet | Summary Report | Detail Report | Data Download

Basic Search | Advanced Search

Facility/Project Name	<input type="text"/>	State	Nevada  <small>AK, AS, ND, RI and VI did not report data.</small>
Authority	<input type="text"/>	System Name	<input type="text"/> 
County Name	Douglas 	Watershed	<input type="text"/> 
Overall Type	<div style="border: 1px solid #ccc; padding: 2px;">Decentralized Wastewater Treatment:  Nonpoint Source Plan Development </div>	Facility Type	<div style="border: 1px solid #ccc; padding: 2px;">Agriculture - Animals  Agriculture - Cropland Biosolids Handling Facility </div>
Cost Categories	<div style="border: 1px solid #ccc; padding: 2px;">Secondary Treatment  Advanced Treatment Infiltrate/Inflow Correction </div>	Permit Number	<input type="text"/>
Total Needs 	<input type="text"/> (\$, Official, Adjusted)	Present Design Flow 	<input type="text"/>  <input type="text"/>
Document Published Date 	<input type="text"/> 	Present Population 	<input type="text"/>  <input type="text"/>
Document Type	<input type="text"/> 		

Results:

You will need Adobe Acrobat Reader to view some of the files on this table. See EPA's [PDF](#) page to learn more about PDF, and for a link to the free Acrobat Reader.

Select	Fac	GWNE	Facility/Project Name	Permit Number	County	Watershed	Authority
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Summary Reports



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CWNS 2008 Data and Reports

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Summary reports display selected CWNS data for chosen geographic areas in bar graphs and pie charts.

1. Select Data Area of Interest

- Water Quality Facility / Project Needs
 Needs Related to Impaired Waters

2. Select One or More Types of Report Output*

- Official Needs By Category
 Other Documented Needs By Category (Nonpoint Source Control and Decentralized Wastewater Treatment)
 Total Official Needs By State**
 Number of Facilities with Needs (Wastewater and Stormwater)
 Number of Facilities with Needs by State (Wastewater and Stormwater)**
 Number of Facilities by Present Residential Population Served
 Needs by Category and Present Residential Population Served

* If no report type is selected, then output is displayed for all report types.

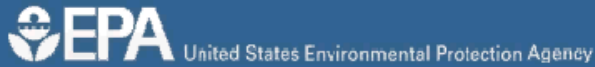
** Only available at the Regional and National-level. Regional reports provide the data by State, and National reports provide the data by Region.

3. Select Geographic Area of Interest

For state-, regional-, or national-level summaries, select "Nation", EPA region or State(s) and click on 'Run Report' button.

EPA Region:

Detailed Reports



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Treatment Technologies (Unit Processes) details for Housatonic Watershed(s)

Rows



- Unit Process = 'Activated Sludge, Anaerobic/Anoxic/Oxic'
- Unit Process

1 - 1 of 1

Facility/Project Name	CWNS Number	Treatment Type	Unit Process	Present	Projected	Change Type	Back Up	Planned Year	Additional Notes	Permit N
WATERBURY WPCF	09001510001	Advanced	Activated Sludge, Anaerobic/Anoxic/Oxic	Y	Y	No Change	N	-	-	CT0100

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National & State Data Downloads

The screenshot shows a Microsoft Access window titled "Microsoft Access - [SUMMARY_FACILITY : Table]". The window displays a table with the following columns: REGION, STATE, PRIMARY_CO, SECONDARY_CO, AUTHORITY, POINT_OF_CO, POINT_OF_CO, and POIN. The data is as follows:

REGION	STATE	PRIMARY_CO	SECONDARY_CO	AUTHORITY	POINT_OF_CO	POINT_OF_CO	POIN
8	MT	Fergus		LEWISTOWN, C			
8	MT	Dawson		GLENDIVE, CIT			
8	MT	Flathead		WHITEFISH, CI	Greg Acton	PO Box 158	
8	MT	Big Horn		HARDIN, CITY C			
8	MT	Valley		GLASGOW, CI			
8	MT	Pondera		CONRAD ,C			
8	MT	Flathead		COLUMBIA FALL	Gary Root	130 6th St. SW	
8	MT	Phillips		MALTA ,CIT	John M. Demarc	PO Box 1300	
8	MT	Cascade	Chouteau	FORT BENTON	Tim Farwick	PO Box 8	
8	MT	Rosebud		FORSYTH ,			
8	MT	Sweet Grass		BIG TIMBER			
8	MT	Broadwater		TOWNSEND			
8	MT	Lake		RONAN ,CIT	Jim Morgan	207 Maint St. S	
8	MT	Jefferson		BOULDER ,			
8	MT	Pondera		VALIER ,TO			
8	MT	Madison		TWIN BRIDGES			
8	MT	Ravalli		STEVENSVILLE	Bruce Park	PO Box 37	
8	MT	Gallatin		MANHATTAN			
8	MT	Big Horn		LODGE GRASS			
8	MT	Teton		FAIRFIELD			

The Access window also shows a status bar at the bottom indicating "Record: 1 of 155" and "Datasheet View". The desktop background is a green field under a blue sky. Icons for MT, FTP32, WinZip, EPA Web Mail, and a calculator are visible.

Data Dictionary & Help



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State: (AK, AS, ND, RI and VI did not report data.)

Keyword:

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4) State Fact Sheets and Regional & EPA Program Needs Summaries

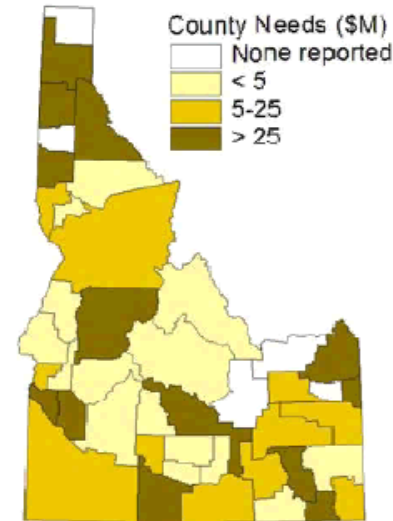


State Fact Sheets



Idaho 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). Idaho documented needs totaling \$1.5 billion in 2008. This is a 98 percent increase from the \$741 million in needs documented in 2004.



Documented Needs in Idaho

Type of Need	Needs (2008 Dollars, Millions)		
	2004	2008	Percent Change
Wastewater treatment	\$336	\$1,019	203%
Pipe repair and new pipes	\$191	\$349	83%
Recycled water distribution	<\$0.5	<\$0.5	0%
Combined sewer overflow correction	\$0	\$0	0%

Regional & EPA Program Needs Summaries

Watershed	Total Needs	Watershed	Total Needs
Eastern Lake Erie	1.3	Southeastern Lake Superior	0.1
Fox	0.9	Southeastern Lake Michigan	1.8
Lake Erie	<0.1	Southeastern Lake Ontario	0.2
Lake Huron	<0.1	Southeastern Lake Superior	0.3
Lake Michigan	0.1	Southern Lake Erie	4.2
Lake Ontario	<0.1	Southwestern Lake Huron	0.1
Lake Superior	<0.1	Southwestern Lake Michigan	4.9
Northeastern Lake Michigan	0.5	Southwestern Lake Ontario	0.3
Northeastern Lake Ontario	0.1	Southwestern Lake Superior	<0.1
Northwestern Lake Huron	0.1	St. Clair-Detroit	4.1
Northwestern Lake Michigan	0.2	St. Lawrence	0.4
Northwestern Lake Superior	0.1	St. Louis	0.4
Oswego	1.0	Western Lake Erie	2.1
Saginaw	0.5		

Table 23. Total documented needs reported by State within the Great Lakes drainage basin (January 2008 dollars in billions)

State	Total Needs	State	Total Needs
Illinois	0.2	New York	3.1
Indiana	1.6	Ohio	5.8
Michigan	7.0	Pennsylvania	0.3
Minnesota	0.5	Wisconsin	4.8

Questions?

