

2007 Drinking Water Infrastructure Needs Survey and Assessment

U.S. Environmental Protection Agency
Washington, DC 20460

OMB No.: XXXX-XXXX
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Please verify or correct the following information:

	Check if Correct as Printed	Corrected Information <i>(Fill in only if preprinted information is missing or incorrect)</i>
Name of System (Community):	<input type="checkbox"/>	
Name of Contact:		
Street Address:	<input type="checkbox"/>	
City, State, and Zip:		
Population Served (if seller, include population of systems sold to):	<input type="checkbox"/>	
Number of Connections (not including those in consecutive systems):	<input type="checkbox"/>	
Total System Design Capacity: _____ MGD		
Source Water Type (Ground, Surface/GWUDI, etc.):	Check All That Apply: <input type="checkbox"/> Ground	<input type="checkbox"/> Surface/GWUDI
	<input type="checkbox"/> Purchased Ground	<input type="checkbox"/> Purchased Surface/GWUDI
Ownership Type:	Check All That Apply: <input type="checkbox"/> Public	<input type="checkbox"/> Investor-Owned or
	<input type="checkbox"/> Federal Government	Private Non-Profit

Public reporting burden for this collection of information is estimated to average **X hours** per response. This estimate includes time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collected. Burden means the total time, effort, or financial resources expended by person(s) to generate, maintain, retain, or disclose or provide information to or for a Federal Agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information; adjust the existing ways to comply with any previously applicable instructions; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15.

Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, OPPI, Regulatory Information Division, U.S. Environmental Protection Agency (1804A), Ariel Rios Building, 1200 Pennsylvania Ave., NW, Washington, DC 20460; and Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, N.W., Washington, DC 20503.

State Use Only	
State Reviewer: _____	Telephone Number: _____

Information provided for this survey can be requested by the public; however, EPA will not release the names and addresses of respondents. Also it is our experience that survey information is rarely requested.

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Source, Treatment, Storage, and Pumping Inventory

To ensure all potential source, treatment, and storage projects are considered, it may be helpful to complete some or all of this inventory table. However, completion of this table is not required.

- **Source Projects** are all projects related to collecting and pumping raw water. This includes wells, surface water intakes, springs, off-stream raw water storage, pumps, and well houses.
- **Treatment Projects** are all projects related to disinfection, filtration, or other treatment processes for ground or surface water sources, or for treatment applied in the distribution system.
- **Storage and Pumping Projects** are related to finished or treated water storage, and booster pump stations.

			Yes ___ No _____
Total Number and Capacity of Existing Surface Water Sources:	Existing Surface Water Intakes (excluding pumps):	Existing Surface Water Intakes (excluding pumps):	If yes, how many additional sources are necessary?
Total Number and Capacity of Existing Pumps:	Existing Pumps (but not wells): _____	Existing Pumps (but not wells): _____	
	Existing Raw Water Pumps: _____	Existing Raw Water Pumps: _____	
Treatment			
Inventory	Needing Replacement	Needing Expansion/Upgrading or Rehabilitation	New Infrastructure Needs
For the sources identified above, enter the number of locations where the following treatment is applied:			
Disinfection (including booster disinfection): _____	Disinfection: _____	Disinfection: _____	Does your system have additional treatment needs for provision of additional public health protection or for aesthetic concerns? (check one)
Filtration: _____	Filtration: _____	Filtration: _____	
Chemical removal or addition: _____	Chemical treatment: _____	Chemical treatment: _____	Yes ___ No ___ If yes, what additional treatment is necessary?
Storage and Pump Stations			
Inventory	Needing Replacement	Needing Rehabilitation	New Infrastructure Needs
Total Number and Capacity of Existing Storage Tanks:	Number of Existing Elevated or Ground-Level Storage Tanks:	Number of Existing Elevated or Ground-Level Storage Tanks:	Does your system have additional storage capacity and/or booster pumping needs to meet the needs of current users? (check one)
Total Number and Capacity of Existing Booster Pump Stations:	Number of Existing Booster Pump Stations:	Number of Existing Booster Pump Stations:	Yes ___ No ___ If yes, how much additional finished water storage or booster pumping capacity is necessary?

Source, Treatment, Storage, and Pumping Projects

Project Number	Project Name	Type of Need (List 1)	Reason for Need (List 2)	New, Replace, Re-Habilitate, Expand	Current or Future	Regulation (List 3) (if applicable)	Design Capacity (MG, MGD, kW)	Number Needed (if applicable)	Cost Estimate (if available)	Date of Cost Estimate (Month/Year)	Documentation (List 4)
Ex. 1	Replace Wells 3 and 8	R1	A1	R	C	4A	0.5	2	-	-	6, 10
Ex. 2	Rehab Treatment Plant and Booster Station	T10	A1,A6	H	F	1A	5.0	1	\$6,027,000	12/05	4
1000											
1001											
1002											
1003											
1004											
1005											
1006											
1007											

If you have more source, treatment, storage, or pumping projects check this box and continue on a supplemental sheet (included in this package or downloadable at www.DWNeeds.com). Project numbers for these types of projects are 1000-1999, and should be numbered in sequence.

EPA requires documentation of all projects provided. Applicable types of documentation are presented in List 4 of the Lists of Codes. Use only existing documentation of cost. We do not expect you to develop new cost estimates.

Transmission and Distribution Inventory

Transmission and distribution projects are the piping needs of a water system. **Projects for valves, hydrants, and meters** that are not part of a transmission or distribution project listed in this table should be recorded in the table on page 7.

On the table below, please provide an estimate of the total feet or miles of pipe in your system, if possible. Completion of this table is not required, but it may be helpful to ensure all potential transmission and distribution pipe projects are considered.

Note: The total feet or miles of pipe in your system is required information if any pipe projects are submitted based solely on survey-generated documentation (documentation codes 10 or 11).										Total feet or miles of pipe in system	
Total Pipe in System				≤6 inch		8-12 inch		15-42 inch		≥48 inch	
<u>PVC</u>	Feet or miles	Amount of PVC by pipe size		feet or miles		feet or miles		feet or miles		feet or miles	
	% of total pipe	% of PVC currently in poor condition or beyond useful life		%		%		%		%	
<u>Ductile Iron</u>	Feet or miles	Amount of ductile iron by pipe size		feet or miles		feet or miles		feet or miles		feet or miles	
	% of total pipe	% of ductile iron currently in poor condition or beyond useful life		%		%		%		%	
<u>Cast Iron</u>	Feet or miles	Amount of cast iron by pipe size		feet or miles		feet or miles		feet or miles		feet or miles	
	% of total pipe	% of cast iron currently in poor condition or beyond useful life		%		%		%		%	
<u>Asbestos Cement</u>	Feet or miles	Amount of asbestos cement by pipe size		feet or miles		feet or miles		feet or miles		feet or miles	
	% of total pipe	% of asbestos cement currently in poor condition or beyond useful life		%		%		%		%	
<u>Other</u>	Feet or miles	Amount of other by pipe size		feet or miles		feet or miles		feet or miles		feet or miles	
	% of total pipe	% of other currently in poor condition or beyond useful life		%		%		%		%	

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Transmission and Distribution Projects

Project Number	Project Name	Type of Need (List 1)	Reason for Need (List 2)	New, Replace, or Re-Habilitate	Current or Future	Regulation (List 3) (if applicable)	Diameter of Pipe (Inches)	Length of Pipe (Feet)	Cost Estimate (if available)	Date of Cost Estimate (Month/Year)	Documentation (List 4)
Ex. 1	Cleaning and Lining Old Cast Iron Mains	M1	A1	H	C	4A	12	18,000	-	-	11
Ex 2	Replace Deteriorated Transmission Main	X2	A1	R	C	4A	24	20,000	\$4,200,000	06/05	1
2000											
2001											
2002											
2003											
2004											
2005											
2006											
2007											

If you have more transmission or distribution projects check this box and continue on a supplemental sheet (included in this package or downloadable at www.DWNNeeds.com). Project numbers for transmission or distribution projects are 2000-2999, and should be numbered in sequence.

EPA requires documentation of all projects provided. Applicable types of documentation are presented in List 4 of the Lists of Codes. Use only existing documentation of cost. We do not expect you to develop new cost estimates.

Backflow Prevention Devices/Assemblies, Hydrants, Service Lines, Valves, Water Meter, and Other Inventory

Although these needs may fit into the other categories of the questionnaire, projects for backflow prevention devices and assemblies, hydrants used to flush water mains, service line replacement, and other items such as valves and meters are recorded in this section to accommodate entries of multiple identical items on one line in the project table.

Record only projects that are not a part of another project (e.g., water main replacement projects will already include valves, hydrants and other appurtenances).

To ensure all potential projects are considered, it may be helpful to complete some or all of this inventory table. However, completion of this table is not required.

Inventory	Needing Replacement	Needing Rehabilitation	New Infrastructure Needs
Total Number of Existing Valves (gate, butterfly, PRVs, altitude, etc.):	Number of Valves:	Number of Valves:	Number of Valves:
Total Number of Existing Water Meters:	Number of Water Meters:	Number of Water Meters:	Number of Water Meters:
Total Number of Existing Hydrants for Flushing Water Mains:	Number of Hydrants for Flushing Water Mains:	Number of Hydrants for Flushing Water Mains:	Number of Hydrants for Flushing Water Mains:
Total Number of Lead Service Lines:	Number of Lead Service Lines:	Number of Lead Service Lines:	Number of Lead Service Lines:
Total Number of Backflow Prevention Devices/Assemblies:	Number of Backflow Prevention Devices/Assemblies:	Number of Backflow Prevention Devices/Assemblies:	Number of Backflow Prevention Devices/Assemblies:
Total Number of Other Items (generators, security components, well houses, computer hardware, etc.):	Number of Other Items:	Number of Other Items:	Number of Other Items:

Backflow Prevention Devices/Assemblies, Hydrants, Service Lines, Valves, Water Meter, and Other Projects

Please do not list any component that is included in a pipe replacement or rehabilitation project listed on the Transmission and Distribution Project Table. If you listed any pipe replacement or rehabilitation project without a cost, EPA will assign a cost using a model that includes all these components.

Project Number	Project Name	Type of Need (List 1)	Reason for Need (List 2)	New, Replace, or Re-Habilitate	Current or Future	Regulation (List 3) (if applicable)	Size (Diameter in Inches)	Number Needed	Cost Estimate (if available)	Date of Cost Estimate (Month/Year)	Documentation (List 4)
Ex. 1	New valves to isolate sections of distribution	M5	A11	N	C	4A	12	16	-	-	11
Ex. 2	Replace Lead Service Lines	M2	A7	R	C	1D	-	100	\$100,000	5/04	9, 11
3000											
3001											
3002											
3003											
3004											
3005											

If you have more of these types of projects check this box and continue on a supplemental sheet (included in this package or downloadable at www.DWNNeeds.com). Project numbers for these types of projects are 3000-3999, and should be numbered in sequence.

EPA requires documentation of all projects provided. Applicable types of documentation are presented in List 4 of the Lists of Codes. Use only existing documentation of cost. We do not expect you to develop new cost estimates.

Respondent Information

Please provide the following information in case we need to contact you for clarification or additional explanation of any of your responses.

Contact Person (Person who completed this questionnaire):

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Signature: _____

Name (please print): _____

Title: _____

Mailing Address:
(Street Address) _____

Telephone Number: _____

Fax Number: _____

E-mail Address: _____

Best Time to Reach You: _____

If you have any questions, contact {State Contact} at {State Contact Phone Number} or e-mail to {State Contact E-Mail} or call the U.S. EPA toll-free Needs Survey Helpline at 1-888-XXX-XXXX.

CLOSING: Thank you for your help. Did you remember to:

- Attach all additional project tables to the questionnaire?
- Identify, by project number, available documentation for all needs and costs reported above?
- Put the questionnaire and the documentation in the pre-paid, pre-addressed Federal Express Pak provided and return this questionnaire and the documentation to the address below? (See the pink enclosure for further return instructions.)

Jane Q. Official
Division of Water
State Environmental Department
One Capital Street
Capital, XX 99999

2007 Drinking Water Infrastructure Needs Survey and Assessment

Instructions

Please take a few minutes to read through these instructions, the *Lists of Codes* (blue booklet), and the questionnaire before beginning.

What is the Purpose of the Survey?

- The 2007 Drinking Water Infrastructure Needs Survey and Assessment (Assessment) captures the 20-year (January 1, 2007 to December 31, 2026) infrastructure needs of public water systems eligible for Drinking Water State Revolving Fund (DWSRF) monies and reports those needs to Congress. The DWSRF provides low interest loans and other forms of financial assistance to water systems.
- The results of this survey document the total national and state-specific infrastructure need for drinking water systems and are used to allocate DWSRF monies to the states for fiscal years 2010 through 2013. **Your participation is critical to the success of the survey and to your state's DWSRF allotment.**

What is a “need?”

For the purposes of the Assessment, a “need” is a project related to installation or major rehabilitation of capital infrastructure required now or within the next 20 years to continue to provide safe drinking water to your consumers. Infrastructure needs are those that will preserve the physical integrity of the water system and protect public health.

What is My Role?

- Your role is to assess your water system's infrastructure and record projects necessary to meet the needs of current water users over the next 20 years
- Each project must be documented or described to show it would address a current or future water quality and/or quantity deficiency. Whenever possible, please use existing documentation such as a capital improvements plan (CIP) or master plan.
- If at all possible, please provide any existing project cost estimates. However, do not generate a cost estimate for this survey. If a project does not have a documented cost estimate, please provide design parameters (e.g., length and diameter of pipe needed) so EPA can model the costs.

What am I asked to do?

- Read all materials
- Identify 20-year project needs from January 1, 2007 through December 31, 2026
- Record projects and identify documentation
- Send completed survey and documentation to the state by **March 2, 2007** or call the state to make other arrangements.

How Does the Survey Work?

- Approximately 3,500 of the 55,000 community water systems across the country have been selected to participate in the survey to report their 20-year need.
- The needs of each participating system are extrapolated to represent the total need for each state. State needs are summed to produce an estimate of the national need.

How Do I Identify Projects to Be Included?

- Begin by referring to any planning documents available for your system. Projects listed in your CIP or Master Plan are likely to be allowable needs. You may also refer to the 2003 Needs Survey if your system participated.
- Next, review your system inventory and consider projects that may not be included in your planning documents but that you are aware you will need to address within the next 20 years. The inventory tables presented with each project table in the questionnaire are provided to help you identify your needs.
- Use “List 1 - Type of Need” in the accompanying Lists of Codes (blue booklet) to help prompt you to consider the types of projects to be included.
- Include projects for necessary **new** infrastructure, or to **replace** or **rehabilitate** existing infrastructure, or in the case of a treatment plant, to **expand/upgrade** the plant.
- Current and Future Needs – Include projects that are needed now as well as projects that will be necessary over the next 20 years to address the needs of your existing customer base. However, do not include projects to **encourage** future growth as discussed in the next section.
- Include only one project to address any given piece of infrastructure. For example, if you have a project for the construction of a tank, do not include the subsequent rehabilitation of that tank in 15 years.
- Include only projects that have not yet begun construction. If a project has begun construction as of January 1, 2007, do not include it. You may, however, include future phases of a project if it will be built in phases.

Current Need – projects that are needed now, even if you may not be able to start immediately due to budget or other issues.

Future Need – projects that you know will be necessary over the next 20 years, but are not needed immediately (example: a currently operational storage tank that will require rehabilitation in 15 years).

Future Growth – projects associated with encouraging growth or based on speculative growth - these are not allowable.

What Types of Projects Should Not Be Included?

- Projects or costs that are not SRF-eligible:
 - Projects **solely** for fire flow, fire protection, or ISA ratings
 - Projects **solely** to meet demand of expected future growth or to encourage future expansion or development that are not also necessary to meet the needs of existing customers
 - Projects for land acquisition not necessary for siting of an infrastructure component (e.g., land purchase to locate a tank would be eligible)
 - Projects for dams or raw water reservoirs
- Projects or costs that are not for capital improvements:
 - Projects for studies or watershed control programs
 - Operations and maintenance needs/costs, laboratory analytical costs, or sample collection
 - Costs associated with staff
 - Loan interest and fees
- Projects that are not associated with public health protection:
 - Landscaping or other projects for appearance
- If documentation implies a project is for one of the above reasons, but you are aware of additional reasons the project is needed, you may provide a signed statement clarifying why the project would address an allowable need.

How is the Questionnaire Organized?

- The questionnaire consists of three separate tables on which projects are recorded. The tables address the categories of the type of projects listed below:

- Source, Treatment, Finished or Treated Water Storage, and Pumping, Projects.
 - Transmission and Distribution Projects.
 - Backflow Prevention Devices/Assemblies, Hydrants, Service Lines, Valves, Water Meters, and Other Projects.
- The questionnaire also includes water system inventory tables accompanying each project table. While NOT REQUIRED, completing these tables can help you to consider your system’s entire inventory and assess what parts of your system’s infrastructure may need improvement.

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How Do I Provide Project Documentation?

Every project recorded on the questionnaire must be accompanied by documentation that discusses the reason the project is needed. In addition, in order to assign a cost to a project, you must provide either an existing documented cost estimate or sufficient information for the project to be assigned a cost based on cost models.

- **Documentation Types** - See List 4 in *the List of Codes* for specific types of documentation. The two types of documentation are:

- **Independent** – generated through a process independent of this survey (examples include a CIP, master plan, laboratory results, or bid tabulation).

Some project types require independent documentation of need (such as a CIP, Master Plan, or laboratory results):

- New Surface Water Sources
- New Aquifer Storage and Recovery Wells
- New Treatment Plants
- Replacement of an Existing Treatment Plant
- Expansion/Upgrade of an Existing Treatment Plant

- **Survey-generated** – written by you or the state specifically for the purposes of this survey. It must include project details such as age, condition, or associated problems.

Example of Survey-generated Documentation:

“Project 1006 is for a new well to replace the existing well. The existing well was drilled in 1957. It has never had any major work done other than replacing the pump. It has lost production capacity substantially due to iron build up on the screen. In addition, subdivision development with on-site septic systems in the area of the well has compromised the source’s water quality. We need to replace this well with a new source in the northeast section of town.”

- **Documentation of Need**

- Documentation must provide enough information to indicate that project is for an allowable need. If an independent document is not available or does not specifically address why a project is needed, please provide a signed statement indicating why the project is needed (see example above).
- Documentation of need must be less than 4 years old. If you have documentation dated prior to January 1, 2003, please supplement this with a signed statement indicating whether the project is still needed, whether it started construction by January 1, 2007, and if it is still within its original scope.

- **Documentation of Cost**

- EPA needs either a cost estimate or enough information to model the cost of each project.
- Cost estimates must be from independent documentation such as a CIP, master plan, or bid tabulation. Please indicate the date the estimate was generated, and EPA will adjust for inflation to current year dollars. Do not adjust costs yourself.
- Cost estimates must be less than 10 years old (after January 1, 1997).
- If there is no independent estimate of cost for a project, simply include the modeling parameters (design capacity in MG or MGD, length and diameter in feet and inches, and number needed) so EPA can estimate the cost.

How Do I Represent a Project on the Questionnaire?

- Familiarize yourself with the *Lists of Codes* booklet and the questionnaire.
 - Pages 1 and 2 of the Instructions and Lists of Codes booklet have important information about the data collected on the questionnaire.
 - The questionnaire has examples of projects at the beginning of each table.
- Enter a project title and the appropriate codes across each row for each project you have identified.
- Document the need for all projects and any cost estimates that are recorded. Identify each piece of documentation by the related project number.
- Enclose the necessary documentation for each project with the completed questionnaire.
- If you need additional pages for a table, they have been provided. Make copies of blank sheets before beginning.

How do I submit large pieces of documentation?

If you're using a large document such as a CIP, you may submit the entire document or make copies of the pertinent pages.

- If you choose to send only pertinent pages, be sure to include a copy of the front page with the document title and date.
- Please mark up the documentation indicating where each project is discussed. Use tabs, highlighters or simply write the project number in the margin of each applicable page.

An electronic version of this questionnaire package and other materials that may be useful for completing the questionnaire, such as a complete dictionary of types of need, are available for downloading at www.DWNeeds.com.

Also, if you have questions, please call your state's Assessment contact or the toll-free Assessment Helpline at 1-800-xxx-xxxx. All contact information is provided on the last page of the questionnaire.

Project Examples and Helpful Hints

Descriptive project name is used.

Modeling parameters provided when available, even if cost is also provided.

Cost and date of cost provided. Date allows cost to be updated to 1/07 dollars by EPA.

<i>Project Number</i>	<i>Project Name</i>	<i>Type of Need (List 1)</i>	<i>Reason for Need (List 2)</i>	<i>New, Replace, or Re-Habilitate</i>	<i>Current or Future</i>	<i>Regulation (List 3) (if available)</i>	<i>Diameter of Pipe (Inches)</i>	<i>Length of Pipe (Feet)</i>	<i>Cost Estimate (if available)</i>	<i>Date of Cost Estimate (Month/Year)</i>	<i>Documentation (List 4)</i>
2000	Cleaning and Lining Old Cast Iron Mains	M1	A1	H	C	4A	12	18,000	--	--	11
2001	Replace Deteriorated Transmission Main	X2	A1	R	C	4A	24	20,000	\$4,200,000	06/05	1

The appropriate codes or where to find them are identified in each column.

The appropriate codes or where to find them are identified in each column.

Two wells at 0.5 MGD capacity each need to be rehabilitated and the cost will be modeled.

All applicable types of documentation recorded.

Project Number	Project Name	Type of Need (List 1)	Reason for Need (List 2)	New, Replace, Expand, Re-Habilitate	Current or Future	Regulation (List 3) (if available)	Design Capacity (MG, MGD, kW)	Number Needed (if applicable)	Cost Estimate (if available)	Date of Cost Estimate (Month/Year)	Documentation (List 4)
1000	Rehabilitate Wells 3 and 8	R1	A1	H	C	4A	0.5	2	--	--	6, 11
1001	Rehab Treatment Plant	T10	A1, A7	H	F	1A	5.0	1	\$6,027,000	12/05	2, 10
1003	New Storage Tank and Pump Station	S1, P2, W3	A4	N	C	4A	--	--	\$1,700,000	08/04	1

More than one type of need may be appropriate, but only if cost is provided.

Two reasons for need are recorded; more than one code can be used.

Regulation code is recorded when applicable, or 4A is used if none apply.