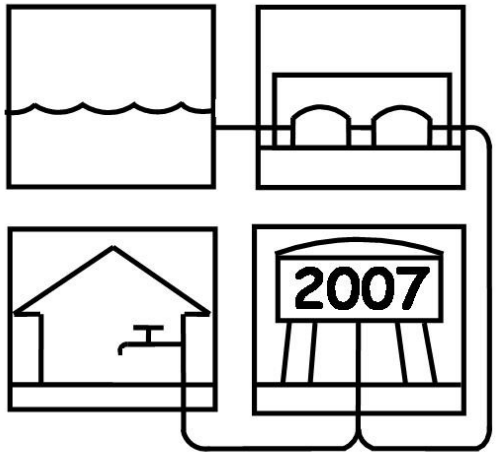
Lists of Codes



Drinking Water Infrastructure Needs Survey and Assessment

Use these instructions and lists of codes when you fill out the Needs Survey and Assessment questionnaire. In your documentation please be sure to include project descriptions. Also include copies of the breakdown of cost estimates, if available.

Instructions for Each Column on the 2007 Drinking Water Infrastructure Needs Survey and Assessment Questionnaire

The following instructions apply to columns on all tables in the questionnaire.

Column Title	*Instructions*
Project Number	Number the projects in each category in sequence, using the range of numbers specified for each category of need.
Project Name	Provide a name that briefly describes and identifies the project.
Type of Need	Refer to List 1 in the Lists of Codes and enter the code(s) that best identifies the project. More than one code may apply to a project.
Reason for Need	Refer to List 2 in the Lists of Codes and enter the code(s) that best justifies the project. More than one code may apply to a project.
New, Replace, Expand/Upgrade, or ReHabilitate	Identify whether the project is to: **-New** infrastructure installation where none exists, enter '**N**' (resulting infrastructure is entirely new) **-Replace** existing infrastructure, enter '**R**' (remove existing infrastructure and replace with new) **-Expand/Upgrade** an existing, complete treatment plant, enter '**E'** (renovates an existing complete treatment plant and may result in an increase in capacity. (*For complete treatment plants only*)) **-Rehabilitate** existing infrastructure, enter '**H**' (restore existing infrastructure to near new condition)
Current or Future	Identify whether the project is: -Needed now, enter >**C**= (even if you cannot start construction now) -Not needed now, enter >**F**= (but will be necessary before 12/31/2026)
Regulation	If the project is needed to maintain or obtain compliance with a regulation, secondary MCL, or State requirement refer to List 3 in the Lists of Codes and enter the code that applies. Enter '4A' if no regulation applies.
Cost Estimate	If available, enter the documented cost estimate for this project. Use only existing cost estimates. If no cost estimate is provided and modeling parameters are recorded, EPA will use models to estimate the cost.
Date of Cost Estimate	Enter the month and year (MM/YYYY) of the cost estimate. EPA will adjust cost estimates to current-year dollars.
Documentation	Refer to List 4 in the Lists of Codes and enter the code(s) that applies to the type of documentation provided that explains why the project is needed. If a cost estimate is provided, also enter the code that applies to the type of cost documentation. More than one code may apply to a project. ***Please enclose the appropriate pages of need and cost documentation, identified by project number.***

LIST 3 C REGULATION OR REQUIREMENT

Code	*Regulation or Requirement*
EXISTING SDWA REGULATIONS	
1A	Surface Water Treatment Regulations (Surface Water Treatment Rule, Interim Enhanced Surface Water Treatment Rule, Filter Backwash Recycling Rule, Long Term 1 Enhanced Surface Water Treatment Rule, or costs associated with covering or treating uncovered finished water reservoirs required by Long Term 2 Enhanced Surface Water Treatment Rule)
1B	Total Coliform Rule
1C	Nitrate or Nitrite Standard
1D	Lead and Copper Rule
1E	Arsenic Rule (10 µg/L Arsenic Standard)
1F	Stage 1 Disinfectants/Disinfection Byproducts Rule (for compliance with the 80 µg/L for TTHMs and 60 µg/L for HAA5s as a running annual average)
1G	Other Regulated VOCs, SOCs, IOCs, or Radionuclides (excludes Radon)
OTHER REQUIREMENTS	
2A	Secondary Contaminants (e.g., iron, taste and odor, and color)
2B	State Requirements

If no regulation code applies, enter 4A.

PROPOSED AND RECENTLY PROMULGATED SDWA REGULATIONS

3A Needs associated **solely** with the following proposed or recently promulgated regulations are not allowable and should not be included. The costs for these needs, estimated for each rule's Economic Analysis, will be added to the total national need. These regulations include:

- Stage 2 Disinfectants/Disinfection Byproducts Rule (for compliance with the 80 µg/L for TTHMs and 60 µg/L for HAA5s as a locational running annual average)
- Long Term 2 Enhanced Surface Water Treatment Rule (other than costs to cover or treat uncovered finished water reservoirs)
- Radon Rule
- Ground Water Rule

If No Regulation Code Applies

4A If none of the codes above apply

LIST 2 C REASON FOR NEED

Code	*Reason the Project is Needed*
A1	Project is for existing infrastructure that is or will be old or deteriorated by 12/31/2026.
A2	Project is to correct a deficiency in source water quantity caused by current user demand.
A3	Project is to correct a deficiency in storage capacity caused by current user demand.
A4	Project is to correct existing pressure problems (not related to fire flow).
A5	Project needed as a result of, but not in preparation for, a natural disaster.
A6	Project is to obtain or maintain compliance with an **existing regulation** (enter the regulation code from List 3 in the Lists of Codes in the regulation column of the questionnaire).
A7	Project is to obtain or maintain compliance with a **secondary standard** (e.g., iron, taste and odor, and color) (enter regulation code 2A in the regulation column of the questionnaire).
A8	Project is for consolidation with and/or connection to an existing public water system.
A9	Project is for extending service to existing homes without adequate water quantity or quality.
A10	Project is to prevent, detect, or respond to a security event (e.g., fence, locks, protective structures, gates, on-line sensors, motion sensors, alarm systems, generators, redundant components, communications equipment, analytical equipment)
A11	Use this code if codes A1-A10 do not apply.

Important Notes:

A description of each project or a copy of the documentation must also be clearly identified by project number and submitted with the completed questionnaire.

Projects **solely** for meeting expected future population growth or for fire flow are unallowable.

LIST 1 C TYPE OF NEED

Code	Type of Need
RAW/UNTREATED WATER SOURCE	
R1	Well (including pump and appurtenances, not including a well house)
R2	Well Pump
R3	Well House (may include a chemical feed room)
R4	Eliminate Well Pit
R5	Abandon Well
R6	*Aquifer Storage and Recovery Well **
R7	*Surface Water Intake **
R8	Raw Water Pump
R9	Off-Stream Raw Water Storage
R10	Spring Collector
R11	De-stratification
TREATMENT: *Disinfection*	
T1	Chlorination
T2	Chloramination
T3	Chlorine Dioxide
T4	Ozonation
T5	Mixed Oxidant Type Equipment
T6	Ultraviolet Disinfection
T7	Contact Basin for CT
T8	Dechlorination of Treated Water
T9	Chlorine Gas Scrubber
TREATMENT: *Complete Plants (require independent documentation)*	
T10	*Conventional Filter Plant (includes CAC technologies) **
T11	*Direct or In-line Filter Plant **
T12	*Slow Sand Filter Plant **
T13	*Diatomaceous Earth Filter Plant **
T14	*Membrane Technology for Particulate Removal **
T15	*Cartridge or Bag Filtration Plant **
T16	*Lime Softening **
T17	*Reverse Osmosis **
T18	*Electrodialysis **
T19	*Activated Alumina **
T20	*Manganese Green Sand (or other oxidation/filtration technology) **
T21	*Ion Exchange **
TREATMENT: *Other Components / Equipment / Processes*	
T30	Zebra Mussel Control
T31	Presedimentation Basin
T32	Powdered Activated Carbon
T33	Aeration
T34	Sequestering for Iron and/or Manganese
T35	Chemical Feed
T36	Chemical Storage Tank
T37	Fluoride Addition

The following instructions apply to columns on specific tables in the questionnaire.

Column Title	*Instructions*
Design Capacity	On the *Source*, *Treatment*, *Storage, and Pumping* project table enter the design capacity when applicable C million gallons per day (MGD) for source, treatment, and pumping; million gallons (MG) for storage; and kilowatts (kW) for emergency power. For this survey, "design capacity" is the total volume or the flow that can be produced when all components of the project are operating.
Diameter of Pipe	On the *Transmission and Distribution* project table enter the diameter of pipe (in inches) that must be rehabilitated, replaced, or installed as new. Use a separate project number and line for different sizes of pipe.
Length of Pipe	On the *Transmission and Distribution* project table enter the length of pipe (in feet) that must be upgraded, replaced, or installed as new for each diameter identified in the previous column.
Size	On the *Backflow Prevention Devices/Assemblies, Hydrants, Service Lines, Valves, Water Meter, and Other* project table enter the diameter (in inches) for infrastructure that must be upgraded, replaced, or installed as new. Use a separate project number and line for different diameters of the same type of need. Diameter is not needed for service line projects.
Number Needed	On the *Source*, *Treatment*, *Storage, and Pumping* project table indicate the total number of components if you have multiple identical projects at the same capacity (e.g., rehabilitate 10 wells each with a 0.5 MGD capacity). On the *Backflow Prevention Devices/Assemblies, Hydrants, Service Lines, Valves, Water Meter and Other* project table indicate the total number of components. For example, a future project to install four 8" diameter valves would include the size (diameter in inches) of the valves and the number "4" would be entered as the number needed. If you use this column and provide a project cost, the cost should reflect the entire project (i.e., *all* 10 wells or *all* 400 meters, **not** the cost of an individual well or meter).

- **What is a "need?"** – Installation or rehabilitation of capital infrastructure needed over the next 20 years.
- **What is "independent documentation?"** – Documents generated through a process independent of the survey (e.g., CIP, master plan, sanitary survey report, etc.).
- **What is "survey-generated documentation?"** – Documents generated specifically for the survey written by the system or the State.

* New installation or expansion/upgrade of these projects requires independent documentation of need (refer to definition on page 2)

LIST 1 C TYPE OF NEED (cont.)

Code	*Type of Need*
T38	Corrosion Control (chemical addition)
T39	Sedimentation/Flocculation
T40	Granular Activated Carbon
T41	Membrane Filters (filter only, not complete plant)
T42	Media Filters
T43	Waste Handling/Treatment: Mechanical (not included in another project)
T44	Waste Handling/Treatment: Nonmechanical or Connection to a Sanitary Sewer (not included in another project)
T45	Type of Treatment Unknown
T46	Other (Please include an explanation)
TRANSMISSION: ***(Any mains that transport raw water to the treatment plant, or treated water from the plant to the distribution system grid)***	
X1	Raw Water Transmission
X2	Finished Water Transmission
DISTRIBUTION	
M1	Distribution Mains (Any mains that transport water through a piping grid serving customers - see "transmission" above)
M2	Lead (Pb) Service Line Replacement
M3	Service Lines (other than lead service lines)
M4	Hydrants Used for Flushing (not included in another pipe project)
M5	Valves (gate, butterfly, etc.) (not included in another pipe project)
M6	Control Valves (PRVs, altitude, etc.)
M7	Backflow Prevention Devices/Assemblies
M8	Water Meters
FINISHED/TREATED WATER STORAGE	
S1	Elevated Finished/Treated Water Storage
S2	Ground-level Finished/Treated Water Storage
S3	Hydropneumatic Storage
S4	Cisterns
S5	Cover for Existing Finished/Treated Water Storage
PUMP STATION AND FINISHED WATER PUMP	
P1	Finished Water Pump
P2	Pump Station (booster or raw water pump station-may include clearwell, pumps, housing)
OTHER INFRASTRUCTURE NEEDS	
W1	Laboratory Capital Costs for Labs Owned by the System
W2	Computer and Automation Costs (SCADA)
W3	Pump Controls/Telemetry
W4	Emergency Power (enter design capacity as kilowatts)
W5	Security: Physical (fence, wall, gate, manhole locks, other locks)
W6	Security: Electronic/Cyber (computer firewall, SCADA, closed circuit TV)
W7	Security: Monitoring tools (used to identify anomalies in process streams or finished water)
W8	Security: Other security (describe in documentation)
W9	Other (Please include an explanation)