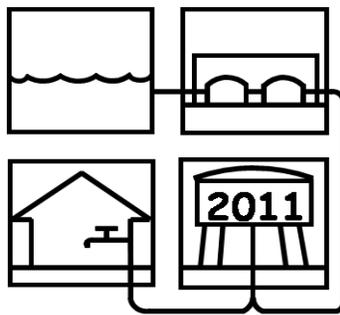


NEEDS EVALUATION GUIDE



Drinking Water Infrastructure Needs Survey and Assessment

U.S. Environmental Protection Agency
Office of Ground Water and Drinking Water

Note: This guide is intended to assist states, EPA Regions, and the Navajo Nation in determining system needs. This guide notes documentation requirements. A single asterisk (*) indicates that weight of evidence (WOE) is required and two asterisks (**) indicate that WOE plus independent documentation (ID) is required. If this Evaluation Guide is signed and adequate information is included, this document can serve as survey-generated documentation of need.

System Schematic:

2011 DRINKING WATER NEEDS EVALUATION GUIDE

SECTION I: SYSTEM AND SURVEYOR INFORMATION

Date of Survey: _____ Surveyor: _____

A. System Name: _____ **PWSID:** _____

B. Person(s) Interviewed:

Name: _____ Title: _____

Phone: _____ E-mail address: _____

Name: _____ Title: _____

Phone: _____ E-mail address: _____

C. System Address (Street or P.O.): _____

(City): _____ (State): _____ (Zip): _____

Telephone Number: _____ Fax: _____

Best Time of Day to Reach System Contact: _____

<p>D. Ownership (Circle One)</p> <p>Public Investor-owned Private Non-Profit Native American</p>	<p>E. Seller?</p> <p>System Sold To: _____</p> <p>PWSID: _____</p> <p>Population of Consecutive System: _____</p> <p>Connections in Consecutive System: _____</p>
<p>F. System Size</p> <p>Population Served: _____</p> <p>Residential Connections: _____</p> <p>Non-residential Connections: _____</p>	<p>G. Source (Circle All That Apply)</p> <p>Groundwater Surface Water/GWUDI Purchased Groundwater Purchased Surface Water/GWUDI Water</p>
<p>H. Water Demand (with units)</p> <p>Average Daily Demand: _____</p> <p>Maximum Daily Demand: _____</p>	

* WOE required

** WOE plus indep. documentation required

SECTION II: SOURCES AND TREATMENT

A. Groundwater Sources

Source Name/No.				
Capacity				
Source Type <ul style="list-style-type: none"> • Well • Spring • Inf. Gallery 				
Age/Condition <ul style="list-style-type: none"> • Well • Pump • Well House • Controls 				
Rehab Needed?* (WOE not required for well pump) (C) or (F)				
Replacement Needed?* (WOE not required for well pump) (C) or (F)				
Abandonment Necessary?				
WQ Problems? (Describe, e.g., biological, physical, chemical, corrosive)				
New Source Needs?* What is the total reliable source capacity when the largest source is out of service?				

* WOE required

** WOE plus indep. documentation required

B. Groundwater Treatment

Treatment Plant Name/No.			
Capacity			
Plant type (e.g., ion exchange)			
List unit processes			
Age/Condition <ul style="list-style-type: none"> • Plant • Components 			
Choose only one	Rehab Needed? <ul style="list-style-type: none"> • Plant • Components (C) or (F)		
	Expansion/Upgrade Needed?** <ul style="list-style-type: none"> • Plant (C) or (F)		
	Replacement Needed? <ul style="list-style-type: none"> • Plant** • Components (C) or (F)		
New Treatment Needs? **			

* WOE required

** WOE plus indep. documentation required

C. Surface Water Sources

1. Provide the following information for each surface water supply:

Source Name/No.		
Raw Water Storage?		
Source Type <ul style="list-style-type: none"> • Stream • Lake/Res • GWUDI 		
Treated?		
Reliable Source Capacity		
Raw Water Quality (consider T&O, precursors, etc.)		
Rehab Needed?* (C) or (F)		
Replacement Needed?* (C) or (F)		
New Source Needs**		

* WOE required

** WOE plus indep. documentation required

D. Surface Water Treatment

Treatment Plant Name/No.			
Capacity			
Plant Type (e.g., conventional filtration)			
List unit processes			
Raw Water Pumps (condition, capacity, redundancy)			
Age/Condition <ul style="list-style-type: none"> • Plant • Components 			
Choose only one	Rehab Needed? <ul style="list-style-type: none"> • Plant • Components (C) or (F)		
	Expansion/Upgrade Needed?** <ul style="list-style-type: none"> • Plant (C) or (F)		
	Replacement Needed? <ul style="list-style-type: none"> • Plant** • Components (C) or (F)		
New Treatment Needs? **			

* WOE required

** WOE plus indep. documentation required

E. Treatment Schematic(s):

ADDRESS PROCESS WASTEWATER & SLUDGE:

SECTION III: FINISHED/TREATED WATER STORAGE

A. Storage Facilities

Name/No.					
Capacity (MG)					
Type <ul style="list-style-type: none"> • Elevated • Ground • Standpipe Buried (fully or partially) • Hydropneumatic • Cistern 					
Material					
Age/Condition					
	Rehab Needed? (C) or (F)				
	Replacement Needed?* (WOE not required for replacement of hydropneumatic tanks or cisterns) (C) or (F)				
New Storage Needs? (e.g., Is storage adequate for existing population?) * WOE required for new hydropneumatic tanks ** WOE plus independent documentation required for new elevated and ground-level finished water storage tanks					

* WOE required

** WOE plus indep. documentation required

SECTION IV. DISTRIBUTION SYSTEM

A. Distribution System Pumps or Pump Stations

(Keep in mind that raw and finished water pump needs are included in the treatment section.)

Name/No.				
Capacity (MG)				
Type				
Age/Condition				
Issues to consider: ! controls ! pump house ! zones of low pressure ! redundancy ! safety (pits, etc.)				
Rehab Needed? (C) or (F)				
Replacement Needed?* (WOE only required for replacing pump stations) (C) or (F)				
New Pumping Needs? * WOE required for new pumps ** WOE plus independent documentation required for new pump stations				

B. New Pipe Needs:** Consider if the system needs new pipe for issues such as looping to address water quality problems or to serve homes with contaminated or inadequate sources.

Needs for new installation	Length	Diameter	Discussion
Distribution			
Transmission			

* WOE required

** WOE plus indep. documentation required

C. Rehabilitation and Replacement Needs (WOE with independent documentation only if needs exceed 10 percent of total pipe):** Review distribution system information and maps for length and diameter of existing pipe needing rehabilitation or replacement B Consider the following:

- Material
- Diameter
- Age
- Condition
- Pressure Complaints
- Leaks and breaks
- Soil conditions/Corrosivity
- Installation (bedding, depth of bury...)

Needs for rehabilitation or replacement of existing mains	Existing pipe (Feet or Miles)	Rehab (H) or Replace (R)	Current (C) or Future (F)	Length of pipe to rehab/replace (Feet or Miles)	Discussion
Distribution <6-inch					
Distribution 6-inch					
Distribution 8-inch					
Distribution 10-inch					
Distribution 12-inch					
Distribution 18-inch					
Distribution 24-inch +					
Transmission (size)					

Total amount of pipe in the system (feet or miles)	
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* WOE required

** WOE plus indep. documentation required

D. Meters Indicate type and number of water meters that need to be installed or replaced.

Type	Number of Meters	Diameter of Meters	New or Replacement	Why is this project needed?
Domestic				
Other				

E. Backflow Indicate type and number of backflow prevention assemblies that need to be installed or replaced.

Type	Number of Assemblies	Diameter of Assemblies	New or Replacement	Why is this project needed and is the system responsible for the cost?
Domestic				
Other				

F. Services Indicate the type and number of service lines that need to be replaced.

Type	Number of Service Lines	New or Replacement	Why is this project needed?
Lead			
Other ¹			

¹ Include information on ownership (i.e., does the system own the service lines or the consumer).

G. Valves Indicate type and number of valves that need to be installed or replaced in addition to those included in any pipe projects.

Number of Valves	Diameter of Valves	New* or Replacement*	Why is this project needed?

H. Hydrants Indicate number of hydrants to be added or replaced for purposes of minimizing stagnation or bacterial problems in addition to those included in any pipe projects.

Number of Hydrants	New* or Replacement*	Where is this project located and why is it needed?

* WOE required

** WOE plus indep. documentation required

SECTION V: OTHER

A. SCADA, telemetry, etc.

Note – if at all possible, obtain documented cost estimate from system

B. Laboratory equipment

Note – obtain documented cost estimate from system

C. Emergency Power (* WOE for new generators/emergency power)

Note – rehabilitation of generators is considered O&M – not allowed for Needs Survey

D. Security (physical, electronic/cyber, process monitoring tools, etc.)*

Note – obtain documented cost estimate from system (fencing can be modeled)

* WOE required

** WOE plus indep. documentation required