



Environmental Health Division  
 Drinking Water Protection Section  
 Source Water Protection Unit  
 P.O. Box 64975  
 St. Paul, Minnesota 55164-0975

# Determination of Aquifer Properties and Aquifer Test Plan (DAP-ATP) Form

<b>Public Water Supply ID:</b>		<b>PWS Name:</b>	
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### Contact Information for Person Completing this Form

<b>Name:</b>	
<b>Address:</b>	
<b>City, State, Zip:</b>	
<b>Phone, Fax, e-mail:</b>	

### Aquifer Properties Determination Methods

**For Methods 1 - 5, check all that apply - attach Summary of Aquifer Properties Based on Existing Data**

1. An existing pumping test that meets the requirements of wellhead protection rule part 4720.5520 and that was previously conducted on a well connected to the public water supply system.
2. An existing pumping test that meets the requirements of wellhead protection rule part 4720.5520 and that was previously conducted on another well in a hydrogeologic setting determined by the department to be equivalent.
3. An existing pumping test that does not meet the requirements of wellhead protection rule part 4720.5520 and that was previously conducted on: 1) a public water supply well or 2) another well in a hydrogeologic setting determined by the department to be equivalent.
4. Existing specific capacity test(s) conducted on the public water supply well(s) or specific capacity tests conducted on other wells in a hydrogeologic setting determined by the department to be equivalent.
5. An existing published transmissivity value.

**For Method 6 or 7 - attach detailed Aquifer Test Plan for Proposed Test**

6. A proposed new test to be conducted on a new or existing well connected to the public water supply system and that meets the requirements for larger-sized water systems (wellhead protection rule part 4720.5520). The test plan must be approved before conducting the test.
7. A proposed new test to be conducted on a new or existing public well connected to the public water supply system and that meets the requirements for smaller-sized water systems (wellhead protection rule part 4720.5530). The test plan must be approved before conducting the test.

### List the unique number of each public water supply well to which this DAP-ATP Form applies


<b>Submitted by:</b>	<b>Prof. License:</b>	<b>Date:</b>
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<b>Reviewed by:</b>	<b>Approved:</b> Yes      No	<b>Approval Date:</b>
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## Summary of Aquifer Properties Based on Existing Data

**Aquifer Name:**

**Aquifer Code:**

Hydraulic Confinement      Confined      Unconfined       Fractured Rock

**Aquifer Test Number of test(s) on file used to compile the information tabulated below:**

### Aquifer Properties Summary Table

Representative Values		Unit	Range		+/- %
			Minimum	Maximum	
Top Stratigraphic Elev.		feet (MSL)			
Bottom Stratigraphic Elev.		feet (MSL)			
Transmissivity (T)		ft <sup>2</sup> /day			
Aquifer Thickness (b)		feet			
Saturated Thickness* (b)		feet			
Hydraulic Conductivity (k)		ft/day			
Primary Porosity (e <sub>p</sub> )		0.00 %			
Secondary Porosity** (e <sub>s</sub> )		0.00 %			
Storativity (S)		dimensionless			
Characteristic Leakage (L)		feet			
Hydraulic Resistance (c)		days			

**Notes: Shaded fields are required - \* hydraulically unconfined aquifer - \*\* dual porosity aquifer because of fractures or solution weathering**

**Describe rationale for selected method(s). Attach documentation and analysis.**

## Aquifer Test Plan for Proposed Test

**Aquifer Name:**

**Aquifer Code:**

**Hydraulic Confinement**

**Confined**

**Unconfined**

**Fractured Rock**

### Proposed New Test Information Summary

<b>Pumped Well Name (Unique Number):</b>		<b>Test Duration (Hours):</b>	
<b>Location:</b> X, Y UTM-Z15N (meters) or Latitude-Longitude (decimal degrees) <u>datum: NAD83</u>	UTM-X		<b>Pump Type:</b>
	UTM-Y		
	Latitude		<b>Proposed Discharge Rate (units):</b>
	Longitude		
<b>Number of Observation Wells:</b>		<b>Type of Flow Rate Measuring Device:</b>	

**Describe a new test to be conducted on the pumped well referenced above. Include unique well numbers of all wells that will be monitored during data collection. How does the existing or proposed test deviate from the ideal. (i.e.: rate, duration, number of obwells, interfering wells, etc.) A map showing the location of the pumping well and any observation well(s) must be included. Plan must state what will be done to dispose of well discharge.**