Division of Water Supply – Bureau of Safe Drinking Water Technical Assistance
401 E. State Street – P.O. Box 420, Trenton, New Jersey 08625-0420
Telephone # (609) 292-5550, Fax # (609) 292-1654
www.state.nj.us/dep/watersupply

Capacity Development Program – Two-Part Pump Test Form for New Non-Transient Non-Community Public Water Systems

System Name: _____

Public Water System Identification (PWS ID) Number (if assigned): _____

Date of Pump Test: _____

NOTE: Both pump tests must be performed during one continuous testing session.

Part I - Peak Demand Pump Test Requirements

Peak Water Demand/Pumping Rate:
Calculate Average Daily Demand (ADD) in accordance with NJAC 7:10-12.6(b) = _____ gpd
Divided by 1440min/day (or appropriate operational timeframe) = _____ gpm x 3 = _____

Peak Water Flow Rate (Maximum water flow rate through fixtures):

Determine # of fixtures _____ @ 3gpm per fixture = _____ gpm

Peak Demand Time (Length of peak use period in minutes):

$$\frac{\text{Peak Water Demand (gal)}}{\text{Peak Water Flow Rate (gpm)}} = \frac{\text{_____ gal}}{\text{gpm}} = \text{_____ minutes}$$

The well must be pumped at a minimum of _____ gpm (peak demand pumping rate) for _____ minutes (peak demand time) to demonstrate the ability to meet peak water demands.

Part II - Constant Head Pump Test Requirements

Calculate ADD Pumping Rate: _____gpd/1440min/day = _____gpm

> **Note**: The well pumping capacity must meet or _exceed_ the average daily demand pumping rate at a constant head condition to demonstrate the ability to meet the average daily demand.

The well must be pumped **at a minimum** of _____ gpm (average demand pumping rate) until a constant head condition is established to demonstrate the ability to meet average daily water demands.

> **Note**: The Constant Head Pump Test can be performed at _higher pumping rates_ to demonstrate a better well yield as long as a constant head condition can be established.

- Constant Head Condition exists when the pumping rate is held steady and the water level changes at a rate of less than 6 inches (0.5 ft.) per hour (minimum of two consecutive hours).
- A record of well yield (flow rate) and drawdown must be made at ½ hour intervals during the test.
- A record of water levels during the recovery period must also be made.
- Recovery Period: well recovers to at least 90% of static water level (prior to test) within 24 hours.