Insurance Services Office (ISO)
4B Eves Drive Suite 200
Marlton, NJ 08053
(800) 444-4554

WATER DEPARTMENT:

1. Complete the "Water Supply" form attached. Provide a brief description of the water supply system from the source of water supply to distribution. Please provide a brief outline of the system, including the source and type of system. Include descriptions of impounding reservoirs, streams, lakes, wells, gravity storage, direct pumping, intermittent pumping, filters, elevated tanks, etc.

2. Provide a hydraulic schematic or diagram of the water system showing the pressure zones or service levels depicting all pumps and water storage facilities, and pressure reducing valves (stations).

3. Provide a map of the water system showing streets, main sizes, fire hydrants, boundaries of all pressure zones (service levels) including location of pressure reducing valves and closed division valves, location of pumps, and water storage facilities. If possible please provide digital map(s) in shp, pdf, or kml formats.

4. Provide the Maximum Daily Consumption (MDC) in million gallons per day (mgd) and the date it occurred during the past three years. This figure should be due to heavy consumption (usage), not a one of a kind event such as a major water main break or major fire that do not relate to consumption.

5. Provide Average Daily Consumption (ADC) in million gallons per day (mgd) for the past 12 months.

6. If the water system has more than one pressure zone (service level), provide the Maximum Daily Consumption (MDC) for each zone in million gallons per day (mgd) and the date it occurred during the past three years. Also, provide the Average Daily Consumption (ADC) in million gallons per day (mgd) for each zone for the past 12 months.

7. List any limitations or restrictions form the source of supply, such as a maximum withdrawal rate from a body of water, the safe yield of a well below the actual pumping capacity of the well pump, etc.

8. Include a list of all pumps in the water system. The attached form may be used.

9. Include a list of all water storage facilities in the water system. The attached form may be used.

10. Describe any emergency connections with other water systems and the time it takes to put in service. Please indicate the name of the other water system.

11. Provide for each water system (include private hydrants) the total number of hydrants and a breakdown of the type. The attached form may be used.

12. Have the three most recent hydrant inspection records available for our review.

13. Have the three most recent flow test records available for our review.

14. Indicate hydrant flow test methods, ISO will use as basis standards set by NFPA and AWWA.

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Water Supply:

Breakdown of Hydrants:

Total Number of Hydrants:

1. Number of hydrants from at least a 6" branch line and has a Large Diameter Hose (LDH) outlet:
2. Number of Hydrants from at least a 6" branch line with no LDH capability:
3. Number of 4" branch line hydrants or any single 2.5" outlet hydrant:
4. Number of flush type or in ground hydrants:

Inspection and Condition of Hydrants:

1. Does your community have a hydrant inspection Program?
   ☐ Yes ☐ No (**if no, disregard next questions and move on to Flow Testing section**)
2. Frequency of hydrant inspections:
   ☐ 1 year or less ☐ 2 years ☐ 3 years ☐ 4 years ☐ 5 years or more
3. Does the community maintain records of inspections? (please have records available during the survey for review)
   ☐ Yes ☐ No
4. Do inspections include a flushing program?
   ☐ Yes ☐ No
5. Are Hydrants pressure tested during inspections?
   ☐ Yes ☐ No
6. Are cistern type hydrants or draft type hydrants inspected by actually drafting and/or back flushing?
   ☐ Yes ☐ No ☐ Not Applicable

Flow Testing:

1. Does your community have a flow testing program?
   ☐ Yes ☐ No (**if no, disregard next questions and move on to next section**)
2. Does the community maintain Flow Test records? (please have records available during the survey for review)
   ☐ Yes ☐ No
3. Does the community utilize the NFPA approved hydrant color-coded marking system?
   ☐ Yes ☐ No
4. Does the community use a calibrated Hydraulic Computer Modeling program for Flow Testing?
   ☐ Yes ☐ No

Total System Water Plant Capacity and MDC:

1. Plant Capacity _____ MGD
2. Maximum Daily Consumption (MDC) _____ MGD

Pressure Zone

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*ISO defines a pressure zone / service level as any area separated by a booster pump, pressure reducing valve, or any other restricting/ boosting device. **For each pressure/ service zone on your system* ***please fill out a separate copy of this form****. In order to complete the survey for the area being graded, please provide the following information:*

Chief Water Official for Water Purveyor

☐-Water Superintendent ☐-Other _____

Name: _____ Organization: _____

Mailing Address: _____ City, State & Zip: _____

Business #: _____ Cell #: _____

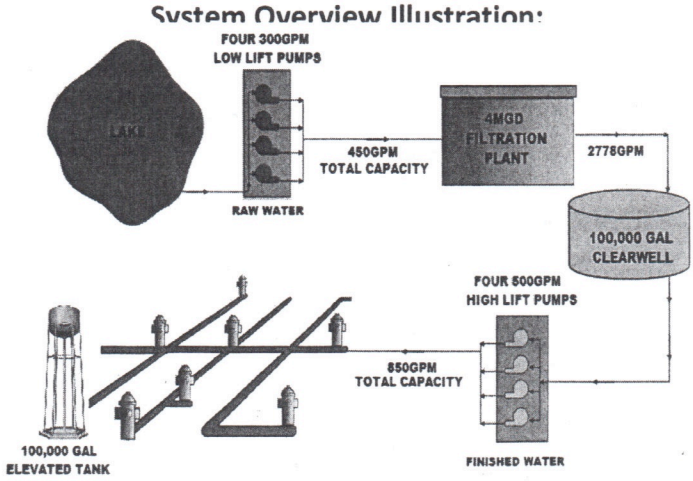
Email: _____

1. **Consumption Records:** What was the total consumption on this system or pressure zone for the past year recorded? If possible please indicate the maximum consumption day recorded in the past 3 years and the average daily consumption in any given year.
2. **This System or Pressure Zone's Consumption:**
   Total Annual Consumption:
   Average Daily Consumption (ADC):
   Maximum Daily Consumption (MDC): Date of MDC: - - (last 3 years MM-DD-YY)
3. Please include a description or an illustration of your distribution system. (See Examples Below)
   a. **System Overview Description**: Please describe your system.
   b. **System Overview Illustration:** Please include an illustration of your pressure zones (use additional sheets as needed)

System Overview Description:

LAKE
↓
FOUR 300GPM RAW WATER PUMPS (450gpm)
↓
FILTER PLANT (4mgd / 2778gpm)
↓
CLEARWELL 100,000 GALLONS
↓
FOUR 500GPM FINISHED WATER PUMPS (850gpm)
↓
SYSTEM & ONE ELEVATED 100,000 GALLON TANK

System Overview Illustration:



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Pressure Zone

4. **Storage**: Please list all storage tanks on the system and indicate on the map their location. We will need capacity, low water level (i.e. the percent of water maintained in the tank before it begins to refill), and the size of the pipes connecting each storage tank to the distribution system.

Site Description	EXAMPLE CLEARWELL	EXAMPLE TANK		
Type : Elevated tank Ground level tank Standpipe Clearwell	CLEARWELL	ELEVATED TANK		
Capacity:	100,000 GALS	100,000 GALS		
Low water level:	95% OR 95,000 GALS	85% OR 85,000 GALS		
Connection size :	12"	12"		
Pressure Zone:	MAIN ZONE	MAIN ZONE		
Altitude Valve:	Yes ☒ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

Site Description				
Type : Elevated tank Ground level tank Standpipe Clearwell				
Capacity:				
Low water level:				
Connection size :				
Pressure Zone:				
Altitude Valve:	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

Site Description				
Type : Elevated tank Ground level tank Standpipe Clearwell				
Capacity:				
Low water level:				
Connection size :				
Pressure Zone:				
Altitude Valve:	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐

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Pressure Zone

5. **Pumps:** Please list all pumps on the systems such as well pumps, low-lift pumps, high-lift pumps, booster pumps, raw water pumps etc...

Site Description	EXAMPLE RAW WATER PUMPS	EXAMPLE FINISHED WATER PUMPS		
Raw or Finished Water Pumps?	Raw ☒ Finished ☐	Raw ☐ Finished ☒	Raw ☐ Finished ☐	Raw ☐ Finished ☐
# of Pumps at this Site	FOUR	FOUR		
GPM Rating (Each Pump)	PUMP 1 - 300GPM PUMP 2 - 300GPM PUMP 3 - 300GPM PUMP 4 - 300GPM	PUMP 1 - 500GPM PUMP 2 - 500GPM PUMP 3 - 500GPM PUMP 4 - 500GPM		
Pulls Water From	LAKE	CLEARWELL		
Pumps to What	WATER TREATMENT PLANT	SYSTEM AND STORAGE		
Can multiple pumps run together?	Yes ☒ No ☐	Yes ☒ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
If multiple pumps can run together, how many and what is the Maximum Capacity in GPM?	TWO PUMPS TOGETHER FOR 450GPM	TWO PUMPS TOGETHER FOR 850GPM		

Site Description				
Raw or Finished Water Pumps?	Raw ☐ Finished ☐	Raw ☐ Finished ☐	Raw ☐ Finished ☐	Raw ☐ Finished ☐
# of Pumps at this Site				
GPM Rating (Each Pump)				
Pulls Water From				
Pumps to What				
Can multiple pumps run together?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
If multiple pumps can run together, how many and what is the Maximum Capacity in GPM?				

Site Description				
Raw or Finished Water Pumps?	Raw ☐ Finished ☐	Raw ☐ Finished ☐	Raw ☐ Finished ☐	Raw ☐ Finished ☐
# of Pumps at this Site				
GPM Rating (Each Pump)				
Pulls Water From				
Pumps to What				
Can multiple pumps run together?	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐	Yes ☐ No ☐
If multiple pumps can run together, how many and what is the Maximum Capacity in GPM?				