



**NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER SUPPLY & GEOSCIENCE
BUREAU OF WATER SYSTEM ENGINEERING
TECHNICAL REVIEW FORM**

**SYSTEM SUPPLY CAPACITY ANALYSIS
(N.J.A.C. 7:10- 11.5(e))**

_____ Water Purveyor _____ PWSID# _____ Municipality

A. New Demands of this Project

Estimated additional residential demand (N.J.A.C. 5:21-5.1):

Type/Size of Housing Unit	Water Demand per Unit (in gallons per day)	Number of Units	Average Day Demand (Number of Units x water demand per unit)	Peaking Factor	Peak Day Demand (MGD)
Total Residential Demand					

Estimated additional non-residential demand (N.J.A.C. 7:10-12.6 Table 1):

Type of Establishment	Water Demand per Unit (in gallons per day)	Number of Units	Average Day Demand (Number of Units x water demand per unit)	Peaking Factor	Peak Day Demand (MGD)
Total Non-Residential Demand					

Total New Average Daily Demand =
Residential Ave Demand _____ MGD + Non-Residential Ave Demand _____ MGD = _____ MGD (Value D1)

Total New Peak Daily Demand =
Residential Peak Demand _____ MGD + Non-Residential Peak Demand _____ MGD = _____ MGD (Value D2)

Supporting Data and Calculations shall be included in the Engineer’s Report. Identify page and section _____
If Peaking Factor is less than 3 include supporting documentation or copy of pre-approval letter from the Bureau.

ENGINEERS CERTIFICATION

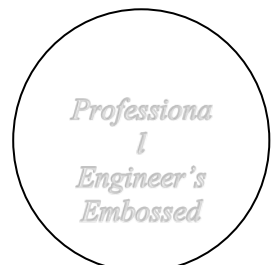
I hereby certify that answers provided above are accurate and reflective of the project being considered for approval.

Signature of Engineer
Professional Engineer’s Embossed Seal

Date

N.J.P.E. #

Type or Print Name of Engineering Firm



B System Supply Capacity

1. Own Sources: *

List all the water system’s existing sources of water with their allocation, pumping, treatment and auxiliary power capacities:

Wells or Surface Water Source	Allocation Limits (MGD)	Pumping Capacity (MGD)	Treatment Capacity (MGD)	Limiting Capacity (smaller of pumping and treatment)	Capacity Under Auxiliary Power (MGD)	Auxiliary Power Y/N		
						Permanent	Portable Dedicated	Portable Rental
Totals (MGD)								

*Attach separate sheet in the same format for additional sources (Value 1) (Value 2)

System Source/Treatment Capacity (value 1) = _____MGD

Largest source or Treatment component is: _____ at _____ MGD

System Source/Treatment Firm Capacity (Source Capacity minus largest source or treatment component): _____ (Value 3)

2. Allocation Limits

The current allocation limits for the water system’s own sources:

Diversion Permit	gpm	MGM	MGY
Totals			
		(value 4)	(value 5)

3. Purchase Contracts

List all the existing Purchase Contracts:

Supplier (PWSID - PWS Name)	Total Hydraulic Capacity (MGD)	Contract Type (Bulk, Emergency)	Contract Effective Date	Contract Expiration Date	Peak Day Contract Limit (MGD)	Peak Month Contract Limit (MGM)	Yearly Contract Limit (MGY)
Total Purchase Volumes							

*Attach separate sheet in the same format for additional contracts Value 6 Value 7 Value 8

4. Total System Supply Capacity

Firm Capacity = (Source Firm Capacity) + (Contract Daily Total)
 = _____ (value 3) + _____ (value 6) = _____ MGD (value C1)

Monthly Capacity = Allocation Monthly Limit + Contract Monthly total
 = _____ (value 4) + _____ (value 7) = _____ MGM (value C2)

Annual Capacity = Allocation Annual Limit + Contract Annual total
 = _____ (value 5) + _____ (value 8) = _____ MGY (value C3)

C. Existing System Demands

1. System Demands

List the water system’s historic total demand for each month for the previous five years:

This demand shall be “Volume Purchased” + “Volume Diverted from Own Sources”

Current Year

Type in Year →						
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
Peak (MGM)						
Total (MGY)						

Peak Monthly Demand = (highest month in the past five years)
 = _____ MGM (value D4), Month____, Year_____

Peak Daily demand = (Peak Monthly Demand divided by the number of days in that month)
 = _____ ÷ _____ days
 = _____ MGD (value D3), Month____, Year_____

Peak Yearly Demand = (highest yearly total in the past five years)
 = _____ MGY (value D5), Year _____

Does the water system have any bulk Sales Contracts with other Water Systems? Yes: No:

If No, go to section C4

2. Contracts* (Sales Contracts Only)

List all the existing Sale Contracts

<u>Supplier</u> (PWSID - PWS Name)	<u>Hydraulic</u> <u>Capacity</u> (MGD)	<u>Contract</u> <u>Type (Bulk,</u> <u>Emergency)</u>	<u>Contract</u> <u>Effective</u> <u>Date</u>	<u>Contract</u> <u>Expiration</u> <u>Date</u>	<u>Peak Day</u> <u>Contract</u> <u>Limit</u> (MGD)	<u>Peak Month</u> <u>Contract</u> <u>Limit</u> (MGM)	<u>Yearly</u> <u>Contract</u> <u>Limit</u> (MGY)
Totals							

*Attach separate sheet in the same format for additional contracts

3. Constrained Capacity Evaluation

Constrained Monthly limit = 90% of the Total System Monthly Supply Capacity
 = _____ (value C2) x 0.9 = _____ MGM (value 13)

Is the Peak Monthly Demand _____ (value D4)
 less than or equal to the "Constrained Monthly Limit" _____ (value 13)? Yes: No:

Constrained Annual limit = 90% of the Total System Annual Supply Capacity
 = _____ (value C3) x 0.9 = _____ MGY (value 14)

Is the Peak Annual Demand _____ (value D5)
 less than or equal to the "Constrained Annual Limit" _____ (value 14)? Yes: No:

If you answered No to either of the questions.

Does the Water System have an approved "Five Year Demand-Resource Evaluation" Report? Yes: No:

If Yes, provide the Letter Approval Number: _____

If No, has the Water System received prior approval to submit this permit application? Yes: No:

If Yes, provide the Letter Approval Number: _____

If No, this permit will be determined as Administratively Incomplete and may be Returned.

4. Previously Allocated Demands

List all the permits that have a demand associated with them that have been already approved, but not yet constructed, or are currently under review with the Bureau:

Permit Number	Permit Effective Date	Permit Expiration Date	Average Daily Demand (as defined in the permit) (MGD)	Peak Daily Demand (as defined in the permit) (MGD)
Authorized connections that do not require a SDW Permit				
Total Previously Allocated Demand				

Value D6

Value D7

D. New Total System Demand:

New Estimated Total Daily Peak System Demand = Value D2 + Value D3 + Value D7
 = _____ + _____ + _____ = _____ MGD (Value T1)
 (nearest 1000gal i.e. 3 decimals)

New Total Monthly Peak System Demand = Value D4 + (Value D1 + Value D6) x days x monthly peaking factor
 = _____ + (_____ + _____) x 31 x 1.5 = _____ MGM (Value T2)
 (nearest 10,000gal i.e. 2 decimals)

New Total Annual Peak System Demand = Value D5 + (Value D1 + Value D6) x days
 = _____ + (_____ + _____) x 365 = _____ MGY (Value T3)
 (nearest 100,000gal i.e. 1 decimal)

E. System Capacity Evaluation:

Is the (New Total Daily Peak System Demand) _____ (Value T1)
 less than (Total System Supply Firm Capacity) _____ (Value C1)? **Yes:** **No:**

Is the (New Total Monthly Peak System Demand) _____ (Value T2)
 less than (Total System Supply Monthly Capacity) _____ (Value C2)? **Yes:** **No:**

Is the (New Total Annual Peak System Demand) _____ (Value T3)
 less than (Total System Supply Annual Capacity) _____ (Value C3)? **Yes:** **No:**

Note that if the allocated demand associated with this and prior unconstructed permits exceeds the “constrained capacity” values then the permittee may be required via permit conditions to implement the required “Five Year Demand-Resource Evaluation”

If you have answered No to any of these three questions then the water system does not have the capacity to provide water for this permit application and **the application package will be returned.**

F. APPLICANT’S CERTIFICATION

I certify under penalty of law that the information provided in this document is true, accurate and complete. I am aware that there are significant civil and criminal penalties for submitting false, inaccurate or incomplete information.

 Type: Name

 *Signature of Applicant/ Owner’s Authorized Representative

 Type: Position

 Date of Application