

When re-evaluating loading projected for a facility, after evaluating actual flows (average of 3 highest monthly average values over last 3 years), it is important to account for flows that have been authorized -- but not realized -- as follows:

1. A written request addressed to the Bureau of Water, Domestic Wastewater Permitting Section by the NPDES/ND permit holder (or their engineering consultant) identifying the specific wastewater treatment plant in question and the NPDES or ND permit number. The request should provide the following:
 - a. The number of residential units (or whatever item being requested for adjustment) that were physically connected and operating for each year for the last three years, the number of commercial customers, and the number of industrial users (with individual pretreatment permits (if any)).
 - b. The applicant must review the Construction Permits issued to the facility (from the records provided both by the Department and in their files) and provide an estimate of the number of residential units (or whatever item being requested for adjustment) that have been permitted but not connected to the system. This can be done either as a specific number (if known), or an approximation as a percentage along with an explanation. Provide an estimate of the percentage of commercial units connected to the system. Note that any additions back would be adjusted to reflect the current unit loading approved for the facility.
 - c. Identify the total flow from Construction permits that have been issued, but not yet built (noting that Construction Permits that were valid since January 1, 2008 would still be valid per "Permit Extension Joint Resolution 2013, H3774".)
 - d. If there is a pretreatment system approved for the specific NPDES permitted facility, the issued pretreatment permits should be listed, with the permitted wastewater flow from each permit and the actual industrial flow for each industrial permit averaged for the last 12 months (or up to 36 months, if requested by the applicant). If the pretreatment permit allows high strength waste, and adjustment may made to reflect the equivalent domestic loading.
2. Based on a review of this information, provide the Department with additional materials, as requested. Any new unit loadings approved would be incorporated into adjustments made in the total plant allocation.
3. The Department will review other data (e.g., compliance issues) to complete a review of the flow adjustments.

Sample Example:

City of XYZ

DMR Monthly Data for the past three years for the three highest monthly values:

January 2012	1.35 MGD
March 2012	1.42 MGD
January 2014	1.37 MGD

Average of three monthly DMR values:	<u>1.38 MGD (A)</u>
Current Construction Permit "checkbook" totals	<u>2.00 MGD (B)</u>

Number of units connected (estimated)- 4500 residential equivalent units

Residential	85% of units permitted (3825 units)
Commercial	15% of units permitted (675 units)
Industrial	3 pretreatment permits issued (one with high strength waste)

Percentage of **constructed but unused** permitted taps

Residential 10% (estimated constructed but unrealized)

Estimate of unrealized residential flow: 3825 units X 300 gpd/unit (assuming this is the current unit loading) X 10%= 0.115 MGD (C)

Construction permits effective since January 1, 2008 but **not yet built** (this would be adjusted to reflect a revised unit loading of 300 gpd/residence before being added back in): 0.05MGD (D)

Pretreatment Permits

Industry #1	Pretreatment permit flow	0.1 MGD
	Actual DMR flow (last 3 year average)	0.081 MGD
	Balance available but unused:	0.019 MGD
Industry #2	Pretreatment permit flow	0.1 MGD
	Actual DMR flow (last 3 year average)	0.09MGD
	Balance available but unused	0.01 MGD
Industry #3	Pretreatment permit flow	0.1 MGD
	WWTF Design BOD loading (300 mg/l)	
	Pretreatment permit BOD concentration	900 mg/l
	Actual DMR flow (last 3 year average)	0.07 MGD
	Adjustment for high strength (0.07 X2)	0.14 MGD (E)
	Balance available but unused	0.03 MGD
	Balance adjusted high strength (0.03 X 3)	0.09 MGD

Total Unused Permitted Industrial Capacity 0.019+ 0.01+0.09 MGD= 0.119 MGD (F)

Adjusted permitting capacity:

3 years DMR flow (3 high months averaged)	1.38 MGD	(A)
Estimate of constructed but unrealized	0.115 MGD	(C)
Permitted but unbuilt	0.05 MGD	(D)
Unused Industrial permits:	0.119	(F)
High strength waste adjustment (0.07 X 2)	0.14	(E)
Total	1.804 MGD	(G)

Permitting checkbook correction:

Current Construction permitting balance:	2.00 MGD	(B)
Adjusted	1.804 MGD	(G)
Correction (reduction)	0.196 MGD	