

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

ANNUAL WASTEWATER VOLUME WORKSHEET INSTRUCTIONS

The purpose of the Annual Wastewater Volume (Volume) Worksheet is to provide facilities with a clear method of demonstrating how their annual flow is calculated. This includes demonstrating the equation(s), water meters, and final calculations to total flow, either by summing all water meters or applying a flow equation already approved by MWRD. What follows are instructions for each step in this process.

Flow Methodology(ies) Instructions

- * When giving the equation for calculating the flow, either as **Total Flow** or on a per **Wastewater Flow Distribution** (or per outfall basis), information should be given that will be reflected later in the worksheet.

Calculation of Annual Volume by Meter Instructions

- * The meters described in the Flow Methodology(ies) section of the worksheet are now detailed and the annual volume for each calculated in this section. To successfully complete this section, the following steps must be followed.
- * For each meter a **Meter Code** (from an MWRD approval letter for the facility's flow methodology), an **Account No.** (from a city water bill), and/or the **Serial No.** (from the meter itself) must be supplied. If one of these is not listed, MWRD will not be able to identify the meter and the volume will not calculate in the worksheet if you are using Microsoft Excel.
- * Supply the number of **Days Active** the meter was measuring water during the year. For meters active the entire year, this should be 365. If the meter was inactive for any period, give the exact number of days. Unless this is a seasonal meter, the volume being supplied by this water line must be quantified for the entire year.
- * All water meters measure volume with a specific **Multiplier** and a specific **Unit**, either gallons (gal) or cubic feet (cu. ft.). The multiplier is given as how many zeroes (0) are to be added to the meter reading. Provide the multiplier (1, 10, 100, etc.) and the unit for this meter. If the volume is measured in gallons, a unit conversion factor of 1 should be applied to the Meter Annual Volume. If in cubic feet, a unit conversion factor of 7.48.
- * Using either water bills supplied by the city or a weekly water meter reading logsheet maintained by the facility, list the **First Reading**, the **First Date** for that reading, the **Last Reading**, and the **Last Date** for that meter reading. In the RD-925 backup, copies of all water bills and logsheets must be included that show this information.
- * The First and Last Readings should not be earlier than December 1, 2014, or later than January 31, 2016, and should be as close as possible to 365 days. If all water bills for the facility are not available, the closest period of time to this date range should be used.
- * The equation to calculate the Meter Annual Volume is:

$$\text{Meter Annual Volume} = \frac{(\text{Last Reading} - \text{First Reading}) * \text{Days Active} * \text{Multiplier}}{(\text{Last Date} - \text{First Date})} * \text{Unit Factor (1 for gallons, 7.48 for cu. ft)}$$

Calculation of Annual Volume Instructions

- * Apply the **Meter Annual Volume** (s) to the equation(s) listed in the Flow Methodology(ies) section.
- * Match each Flow Methodology to its corresponding Outlet No. and Annual Volume.
- * The **Total Volume** is reported on **Line 6** of the RD-925 Form and each Outlet **Annual Volume** is used on the Annual Loadings Calculation Worksheet.

Example

$$\text{Outlet No.} \quad \underline{\text{Total Flow}} = \text{I1} + \text{I2} + \text{I3} - \text{Q1}$$

Meter Code	Serial No. or Account No.	Days Active	Multiplier	Unit	First Reading	First Date	Last Reading	Last Date	Meter Annual Volume
I1	501251331	365	100	cu.ft.	7,153	12/22/14	33,217	12/11/15	= 20,101,676
I2	501251332	354	100	cu.ft.	96,315	01/22/15	281,638	12/15/15	= 150,067,425
I2	501251332	11	1,000	gal	0	12/15/15	7	01/22/16	= 2,026
I3	501251333	365	10	gal	7	12/29/14	10	12/29/15	= 30
Q1	A7048	362	10	gal	1,423	12/29/14	5,638	12/26/15	= 42,150

$$\begin{aligned} & \text{Annual Volume} \\ \text{Outlet No.} \quad \underline{\text{Total Flow}} &= \underline{170,129,007} \text{ gal} \\ \underline{\text{Total Volume}} &= \underline{170,129,007} \text{ gal} \end{aligned}$$

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Annual Wastewater Volume Worksheet

For the 2015 Reporting Year

Flow Methodology(ies) by Outlet

	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code	Meter Code
Outlet No. _____	= _____	+ _____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Outlet No. _____	= _____	_____	_____	_____	_____	_____	_____	_____	_____	_____

Calculation of Annual Volume by Meter

Meter Code	Serial No. or Account No.	Days Active	Multiplier	Unit	First Reading	First Read Date	Last Reading	Last Read Date	Meter Annual Volume
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____
_____	_____	_____	_____	_____	_____	_____	_____	_____	= _____

Calculation of Total Annual Volume by Outlet

Outlet No. _____	=	Annual Volume	gal
Outlet No. _____	=	_____	gal
Outlet No. _____	=	_____	gal
Outlet No. _____	=	_____	gal
Outlet No. _____	=	_____	gal

Outlet No. _____	=	Annual Volume	gal
Outlet No. _____	=	_____	gal
Outlet No. _____	=	_____	gal
Total Volume	=	_____	gal

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

ANNUAL WASTEWATER LOADINGS WORKSHEET INSTRUCTIONS

The purpose of the Annual Wastewater Volume Worksheet is to clearly demonstrate how the wastewater loadings for each outlet are calculated.

This includes listing the Flow-Weighted Average (FWA) for each outlet obtained by sampling or approved by a reporting option and listing the total annual volume by outlet. Follow the steps below.

Sampling Results or Reporting Options

- * List all outlets and their corresponding FWA concentrations, in milligrams per liter (mg/L), for 5-Day BOD (BOD) and Suspended Solids (SS).

If sampling is required at an outlet:

- * List the FWA concentrations for BOD and SS from all the sampling studies conducted in 2015 and check the sampling box.

If the outlet is approved for a reporting option:

- * List the approved concentrations for BOD and SS and check the corresponding reporting option box.

Calculation of Annual Quantities by Outlet

If you are NOT approved for a wastewater flow distribution:

- * You will ONLY complete the first line of the table (unless you request a data isolation).
- * On the first line in the table, Write TOTAL in the Outlet No. Category.
- * Transfer the total annual flow calculated on the annual wastewater loadings worksheet.
- * From the Sampling Results or Reporting Options table, select the highest BOD concentration and the highest SS concentration and list it on the line.

If you have been APPROVED for a wastewater flow distribution (WFD):

- * Each row, indicate the Outlet No.
- * Transfer the corresponding total annual flow calculated on the annual wastewater loadings worksheet to each outlet.
- * Transfer the BOD and SS concentration for the corresponding outlet from the table above.

Data Isolations

- * Under the Outlet No. category, indicate Outlet No. and isolation. For example 1A (isolation).
- * Indicate the daily volume from the isolated day.
- * Indicate the BOD and SS concentrations from the isolated day.

Example using an approved WFD and Data Isolation:

Outlet No.	Volume (gal)	5-Day BOD (mg/L)	Suspended Solids (mg/L)	5-Day BOD (lbs)	Suspended Solids (lbs)
Outlet No. 1A	5,000,000	800	400	33,360	16,680
Outlet No. 2A	4,000,000	300	200	10,008	6,672
Outlet No. 2A(Isolation)	20,000	8,000	300	1,334	50

Total Annual Loadings

- * Total Volume, 5-Day BOD, and Suspended Solids will be populated by summing the corresponding fields.
- * Report Total 5-Day BOD in Pounds on Line 7 and Total Suspended Solids in Pounds on Lines 7 and 8, respectively, of the RD-925 Form.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Annual Wastewater Loadings Worksheet

For the 2015 Reporting Year

Sampling Results or Reporting Option(s)

	5-Day BOD	Suspended Solids	Reporting Option/Sampling Results
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i
Outlet No.	_____ mg/L	_____ mg/L	<input type="checkbox"/> Sampling <input type="checkbox"/> 7g <input type="checkbox"/> 7h <input type="checkbox"/> 7i

Calculation of Annual Quantities by Outlet

	Volume (gallons)	5-Day BOD (mg/L)	Suspended Solids (mg/L)	5-Day BOD (lbs)	Suspended Solids (lbs)
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____
Outlet No.	_____	_____	_____	_____	_____

Total Annual Loadings

6.	Volume (gallons): _____ Indicate Total on Line 6 of the User Charge Annual Certified Statement	_____	gal
7.	5-Day BOD (lbs): _____ Indicate Total on Line 7 of the User Charge Annual Certified Statement	_____	lbs
8.	Suspended Solids (lbs): _____ Indicate Total on Line 8 of the User Charge Annual Certified Statement	_____	lbs

Comments

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

AD VALOREM TAX CREDIT WORKSHEET INSTRUCTIONS

All Users are permitted to claim a Property Tax Credit from their parcels in Cook County that are part of the reporting facility.

This Worksheet provides the User with a simple reporting method for the calculation of the Property Tax Credit.

Second Installment Property Taxes Paid to Metro Water Reclamation District

* Total the Taxes Paid in Column 3.

Total Ad Valorem Tax Credit

* Total Ad Valorem Tax Credit = Total Second Installment Property Taxes Paid to MWRD x 0.391.

Column 1: Parcel ID # (PIN)

* Found on your Property Tax Bill. This number is 15 digits long and appears in the following format on the bill:

12-34-567-890-1234

Column 2: Physical Address of PIN

* This is the Property Location associated with the PIN listed on this line. In order to claim credit, the physical location must be part of the contiguous property being assessed User Charge. This means the facility must either be physically connected to the main facility or is not interrupted by any major divisions (such as streets or other parcels not associated with the facility).

* If a PIN is claimed for Ad Valorem Tax Credit, any wastewater discharged from that location must also be quantified and all water bills associated with it must also be submitted.

Column 3: Taxes Paid to MWRD

* Find the line on your tax bill that states "Metro Water Reclamation District" under Miscellaneous Taxes and record 2014 tax.

* If that PIN is within a Tax Increment Financing (TIF) District, you no longer have to verify the Frozen Equalized Assessed Value. What is printed on the bill is now accurate and no further action is required.

TOTAL PAYMENT DUE		2014 Second Installment Property Tax Bill					
\$2,348.68	By 08/03/15 (on time)	Property Index Number (PIN)	Volume	Code	Tax Year (Payable In)	Township	Classification
		12-34-567-890-1234	236	39018	2014 (2015)	WORTH	2-34

IF PAYING LATE, PLEASE PAY	08/04/15-09/01/15	09/02/15-10/01/15	10/02/15-11/01/15	LATE INTEREST IS 1.5% PER MONTH, BY STATE LAW
	\$2,383.91	\$2,419.14	\$2,454.37	

TAXING DISTRICT BREAKDOWN					
Taxing District	2014 Tax	2014 Rate	2014 %	Penalty	2013 Tax
MISCELLANEOUS TAXES					
South Cook Mosquito Abatement Harvey	5.90	0.017	0.12%		5.59
Metro Water Reclamation Dist of Chicago	149.15	0.430	3.03%	13.87	145.70
Miscellaneous Taxes Total	155.05	0.447	3.15%		151.29

TAX CALCULATOR		IMPORTANT MESSAGES	
2013 Assessed Value	15,754	2014 Total Tax Before Exemptions	5,921.50
2014 Property Value	152,960	Homeowner's Exemption	-994.35
2014 Assessment Level	X 10%	Senior Citizen Exemption	.00
2014 Assessed Value	15,296	Senior Assessment Freeze Exemption	.00
2014 State Equalization Factor	X 2.7253	2014 Total Tax After Exemptions	4,927.15
2014 Equalized Assessed Value (EAV)	41,686	First Installment	2,578.47
2014 Local Tax Rate	X 14.205%	Second Installment +	2,348.68
2014 Total Tax Before Exemptions	5,921.50	Total 2014 Tax (Payable In 2015)	4,927.15

Column 1
Parcel ID # (PIN)

Column 3
Taxes Paid to MWRD

Column 2
Physical Address of PIN

EVERGREEN PARK IL
EVERGREEN PK IL

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

Ad Valorem Tax Credit Worksheet

For the 2015 Reporting Year

Second Installment Property Taxes Paid to Metro Water Reclamation District: _____ \$ _____

Total Ad Valorem Tax Credit: _____ Multiply the line above by 0.391 \$ _____

2014 Second Installment Property Taxes Paid to Metro Water Reclamation District

	Column 1 Parcel ID # (PIN)	Column 2 Physical Address of PIN	Column 3 Taxes Paid to MWRD
1.	_____	_____	\$ _____
2.	_____	_____	\$ _____
3.	_____	_____	\$ _____
4.	_____	_____	\$ _____
5.	_____	_____	\$ _____
6.	_____	_____	\$ _____
7.	_____	_____	\$ _____
8.	_____	_____	\$ _____
9.	_____	_____	\$ _____
10.	_____	_____	\$ _____
11.	_____	_____	\$ _____
12.	_____	_____	\$ _____
13.	_____	_____	\$ _____
14.	_____	_____	\$ _____
15.	_____	_____	\$ _____
16.	_____	_____	\$ _____
17.	_____	_____	\$ _____
18.	_____	_____	\$ _____
19.	_____	_____	\$ _____
20.	_____	_____	\$ _____
21.	_____	_____	\$ _____
22.	_____	_____	\$ _____
23.	_____	_____	\$ _____
24.	_____	_____	\$ _____
25.	_____	_____	\$ _____
26.	_____	_____	\$ _____
27.	_____	_____	\$ _____
28.	_____	_____	\$ _____
29.	_____	_____	\$ _____
30.	_____	_____	\$ _____