

**ILLINOIS  
DEPARTMENT OF  
NATURAL RESOURCES**  
Office Of Water Resources

Illinois Department of Natural Resources  
Office of Water Resources  
36 S Wabash Avenue/Suite 1415  
Chicago IL 60603

7.789

**2008 Annual Water Use Audit Form (LMO-2)**

This form must be completed by all Category IA and IIB Permittees for each annual water use accounting year running from October 1st through September 30th. This form must be submitted to Department I by January 4, 2009

**Section I- General Information**

Name, address and phone number of Permittee:

ILLINOIS - AMERICAN WATER COMPANY WEST SUBURBAN DVN  
1000 INTERNATIONALE PARKWAY  
WOODRIDGE, IL 60517  
630-739-8854

County : WILL & DUPAGE

Name, address and phone number of the contact person for the Permittee:

MR. STEVEN PHILLIPS  
ILLINOIS-AMERICAN WATER COMPANY  
1000 INTERNATIONALE PARKWAY  
WOODRIDGE, IL 60517  
630-739-8854

RECEIVED  
FEB 03 2009

OFFICE OF WATER RESOURCES  
36 S WABASH AVENUE SUITE 1415  
CHICAGO IL 60603

Authorized Official: MR STEVEN PHILLIPS

Title: OPERATIONS MANAGER

Date: 20-Nov-08

Please provide the following leak survey information and population estimates for the last year.

Results and recommendations of leak surveys conducted on the water distribution system including progress made in leak repair. (attach to back of form)

Population 62,199 Number of existing households 20,733 x 3.0

The Illinois Department of Natural Resources is requesting disclosure of information that is necessary to accomplish the statutory purpose as outlined under Chapter 19, Section 120.2 of the Illinois Revised Statutes. Disclosure of this information is required. Failure to provide any information will result in this form not being processed. This form has been approved by the Forms Management Center, Central Management Services.

**Section II - Water Use Audit**

Enter the amount of water pumped and utilized for each item shown below. All amounts entered in this section must be in units of million gallons per day (MGD) rounded off to 3 decimal places to the right of the decimal. Conversion calculations are provided for your use in Section IV to convert other commonly used units to MGD.

**A. PUMPAGE DATA**

1 Lake Michigan Pumpage .....	9.851 MGD
2 Shallow Aquifer Pumpage .....	MGD
3 Deep Aquifer Pumpage .....	MGD
4 Total Pumpage (Add lines 1, 2, & 3).....	9.851 MGD
5 Water Treatment Use .....	MGD
6 Gross Annual Percentage (subtract line 5 from line 4).....	9.851 MGD

Water sold or provided to any other distribution systems (enter the name of each system and the amount sold or provided to that system on lines 7 through 12). If additional lines are required attach an additional sheet listing each system and amount.

7 .....	MGD
8 Village of Plainfield .....	3.278 MGD
9 .....	MGD
10 .....	MGD
11 .....	MGD
12 .....	MGD
13 Total (add lines 7-12 and any additional amounts) .....	3.278 MGD
14 Net Annual Pumpage (subtract line 13 from line 6) .....	6.573 MGD

**B. USES**

	METERED .....	...UNMETERED	
15 Residential	3.999		3.999 MGD
16 Commercial and Manufacturing	1.547		1.547 MGD
17 Municipal	0.156		0.156 MGD
18 Construction	0.001		0.001 MGD
19 Total Uses (add Total lines 15 through 18)			5.703 MGD
20 Percentage of Total Use to Net Annual Pumpage (divide line 19 by line 14 and multiply by 100)			87 %

**C. HYDRANT USES**

21 Firefighting and Training	0.001 MGD
22 Water Main Flushing	0.003 MGD
23 Sewer Cleaning	0.001 MGD
24 Street Cleaning	0 MGD
25 Construction	0.002 MGD
26 Other (attach explanation)	0 MGD
27 Total Hydrant Use (add lines 21 through 26)	0.007 MGD
28 Percentage of Hydrant Use to Net Pumpage (divide line 27 by line 14 and multiply by 100)	0.11 %
29 Department Requirement for Hydrant Use	1.0 %
30 Excessive hydrant use (subtract line 29 from line 28). If the percentage is greater than 0.0, attach explanation. [see Rule 730307(e)]	-0.89 %

D. Unavoidable Leakage and Unaccounted for Flow	
31 Maximum Unavoidable Leakage (Do worksheet in Section III; enter amount from line 10 of the worksheet) .....	<u>0.448 MGD</u>
32 Percentage of Maximum Unavoidable Leakage to Net Annual Pumpage (divide line 31 by line 14 and multiply by 100) .....	<u>6.82 %</u>
33 Total Accounted for Flow (add lines 19, 27 and 31) .....	<u>6.158 MGD</u>
34 Percentage of Total Accounted for Flow to Net Annual Pumpage (divide line 33 by line 14 and multiply by 100) .....	<u>93.69 %</u>
35 Total Unaccounted for Flow (subtract amount on line 33 from line 14) ...	<u>0.415 MGD</u>
36 Percentage of Total Unaccounted for Flow to Net Annual Pumpage (divide line 35 by line 14 and multiply by 100) .....	<u>6.31 %</u>

**Please Check Your Calculations**

The sum of lines 33 and 35 should equal line 14. If they do not equal, recheck your calculations.  
The sum of lines 34 and 36 should equal approximately 100%. If not, check your calculations.

**Section III - Maximum Unavoidable Leakage Worksheet**

Complete the following calculations to determine your maximum unavoidable leakage. Enter the appropriate amounts in the spaces provided.

**A Cast Iron Pipes With Lead Joints**

Age of Pipe	Miles of Pipe	Leakage Rate*	Unavoidable Leakage**
1 60 yrs. or greater	<u>          </u>	x 3000 g/d/mi =	<u>          </u> 0 g/d
2 40-60 yrs.	<u>          </u>	x 2500 g/d/mi =	<u>          </u> 0 g/d
3 20-40 yrs.	<u>          </u>	x 2000 g/d/mi =	<u>          </u> 0 g/d
4 20 yrs. or less	<u>          </u>	x 1500 g/d/mi =	<u>          </u> 0 g/d

**B All Other Types of Pipes and Joints**

5 60 yrs. or greater	<u>          </u>	x 2500 g/d/mi =	<u>          </u> 0 g/d
6 40-60 yrs.	<u>          </u>	x 2000 g/d/mi	<u>          </u> 0 g/d
7 20-40 yrs.	<u>165.54</u>	x 1500 g/d/mi =	<u>          </u> 248310 g/d
8 20 yrs. or less	<u>199.74</u>	x 1000 g/d/mi =	<u>          </u> 199740 g/d
9 Total Miles	<u>358.78</u>	Total Leakage	<u>          </u> 448050 g/d
10 Total Maximum Unavoidable Leakage, in MGD (divide total leakage on line 9 by 1,000,000 .....			<u>          </u> 0.44805 MGD
(Enter this amount on line 31 of "Section II - Water Use Audit")			

## Section IV - Conversion Table

Below are conversion calculations to convert the most commonly used units to units of millions gallons per day (MGD).

To convert cubic feet per year (cf) to (MGD) use:

$$\text{cf} \times 7.48 \div 1,000,000 \div 365 = \text{MGD}$$

To convert gallons per year (g) to (MGD) use:

$$\text{g} \div 1,000,000 \div 365 = \text{MGD}$$

To convert gallons per day (g/d) to (MGD) use:

$$\text{g/d} \div 1,000,000 = \text{MGD}$$

To convert million gallons per year (mg) to (MGD) use:

$$\text{mg} \div 365 = \text{MGD}$$