

# Electronic Monthly Operating Report System (eMOR)

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# What is a monthly operating report (MOR)?

- Facility operators at all community water supply (CWS) in Illinois currently are required to submit monthly reports to the IEPA regional offices in hard-copy form
- Four types of CWS—groundwater, surface water, a combination of the two, or purchase-and-distribute-only
- MORs may include the amounts of raw and finished water pumped daily, the amounts of chemicals added to the water ( $\text{Fl}_2$ ,  $\text{Cl}_2$ ), or used to remove iron in groundwater, or to coagulate and remove contaminants in surface water



# What is eMOR?

- A way to submit CWS MORs using electronic copies of reports
- Will eventually eliminate paper reporting
- Many advantages for both the system and the state
  - Archival and storage
  - No printing, mailing, storing of paper
  - Provide tools that allow you to view data over several months
  - Provide better information for understanding system needs (for instance, trend in pumpage, signaling a leak, or looking at multiple systems near each other for water quality issues).



# Types of Water Systems

- Groundwater (GW) - most common type – 1000 systems
- Surface water (SW) - the least common but the most complex as far as required values in a monthly report – 100 systems
- Surface Water Purchase (SWP) and Groundwater Purchase (GWP)
  - About 660 systems that have the simplest required items in their monthly reports – mainly incoming water from a groundwater or surface water plant and residual chlorine.
- Complexity: multiple treatment plants, blended GW-SW, GUI



# What is an MOR template?

- Several years ago, the Illinois EPA created several generic Excel templates for different types of systems:
  - Distribution System Operating
  - Monthly Operation and Chemical Feeding
  - Monthly Coagulation and Lime Softening
  - Monthly Iron Removal and Ion Exchange Softening
  - Membrane Filtration Daily Operations Report



# Operating & Distribution Template

	A	B	C	D	E	F	G	H	I	J	K	L	
1			ILLINOIS ENVIRONMENTAL PROTECTION AGENCY						DISTRIBUTION SYSTEM OPERATING REPORT				
2									Report For:				
3			DIVISION OF PUBLIC WATER SUPPLIES						For Month of:				
4		TIME	METER	WATER	CHLORINE TESTS (mg/l)								
5	DATE	METER	READING	USED	TIME	Chlorine	*		TIME	Chlorine	*		
6		READ	(1000 GAL)	(1000 GALS)	TESTED	Residual		TEST LOCATION	TESTED	Residual		TEST LOCATION	
7	1												
8	2			0									
9	3			0									
10	4			0									
11	5			0									
12	6			0									
13	7			0									
14	8			0									
15	9			0									
16	10			0									
17	11			0									
18	12			0									
19	13			0									
20	14			0									
21	15			0									
22	16			0									
23	17			0									
24	18			0									

# Automated/Updated Templates

- Current templates don't include formulas
- New templates for Class C and Class D systems will
- Allow for things like:
  - Average, min, and max raw and finished water
  - Monthly totals
  - Conversions for different types of chemical feed (lbs to mg/l, etc)
  - Include sheets to deal with complexity (multiple plants, etc.)



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# System Needs for eMOR

- Monthly reports kept in spreadsheet format (Excel, Open Office, or any other file that can be saved as an Excel file)
- Reliable Internet access
- Reliable e-mail address
- Windows-based browser (IE, Firefox, Chrome)
- State of Illinois digital ID (eventually, but recommended)





# Objectives

- E-mail notification of uploads for operator and EPA engineers
- Password recovery
- Reminder emails when reports are past due
- Development of publicly accessible Information/Help web pages on the State Water Survey main website (up now, but being revised)
- Development of templates for Class C and D systems
- Importing of data into a database for analysis and flexible retrieval of information



# Additional Info

- Idea is to eventually replace paper submission, but that is still some time away.
- New participants are welcome to enroll
- The more systems we can look at now, to see how you are filling out your forms, what differences there are, etc, the better the templates and system will work when deployed.
- Also, it puts you on the ground floor, so to speak, for when the actual roll out of all of this occurs. Working with us now, when we are developing gives you some opportunity to comment, suggest.



# e-MOR and IWIP

- Eventually eMOR can lessen the operator's work on the annual Water Inventory Program
- IWIP became mandatory for PWS's a couple of years ago
- IWIP collects pumpage data every year from every public water system, along with other information valuable to the ISWS and the state.
- Goal is to provide a way to pull as much from other information, like the MOR's so that your job in completing IWIP is easier.



# eMOR Summary

- Goal 1: Deliver your EPA-required monthly reports to regional engineers electronically and be able to access data for analysis and review electronically.
- Goal 2: Capture IWIP water use data from electronic uploads and thereby reduce duplication of effort between the Water Inventory Program and EPA requirements.



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