



THE MICHIGAN INSIGHT

A PERIODIC PUBLICATION OF THE MICHIGAN ONSITE WASTEWATER RECYCLING ASSOCIATION
MOWRA

From the President...

MOWRA is alive and well.

2005 has been a steady construction season for many. Business will be measured against last year for growth and profit. Housing starts, replacement permits and interest rates all contribute or affect the market. Many are surprised by the level of construction activity since Michigan does not rate very high in several areas of business and employment measurement. Environmental health will be measured by the safety (health) of the citizens and preservation of the environment. There is hard work and genuine effort in meeting each goal. I think of that fact every time I eat in a restaurant, drive by a home with young children, and view the countryside. What does the future hold for all involved in the onsite wastewater market?

It is interesting that the market in Michigan will be affected by the economy in the short term and possibly regulations in the long term. In my effort to get a feel for the current status of a state code, I did not get a handle on it. The legislation for private utilities did pass.

Please review the exciting 2006 Michigan Wastewater Conference coming in January 2006. Contact information is documented. Once again, MOWRA is sponsoring the Education program on the first day. This has become very successful as education to the industry. All of the related associations have been involved and we thank them for their efforts. Mark your calendar – see you in January.

The MOWRA scholarship was awarded in 2005. More detail to follow at the membership meeting at the wastewater conference...

While serving as the temporary editor of the Michigan Insight, I wanted to add some meat to the publication. I am always interested in articles and/or documents that are focused (and short), that I can digest and later discuss. In doing some research, the Manitoba Conservation website surfaced and caught my interest. Michigan does not have the corner on cold weather, tough soils, and environmentally sensitive areas. I contacted the Supervisor of the Environmental Programs for the Manitoba Conservation to request permission for a sharing their documents in our newsletter. Mr. Don Labossiere responded with permission by email almost immediately. Don shared some additional information that drove their need for the recently updated Canadian documents made available by website.

“Just so you know, we have interesting soil characteristics here in Manitoba (thick gumbo clay in the Red River valley) which is creating specific problems in the capital region around Winnipeg with fields functioning properly on standard lots. This is why we’ve produced some of the information that we have on our website. Problems are further compounded by the fact that the drainage in the area ends up in Lake Winnipeg, which is in the same sad, sorry state as the Great Lakes were roughly 30 years ago.”

Don Labossiere, Supervisor – Environmental Programs, Operations Division Headquarters Manitoba Conservation, Winnipeg, MB

I want to thank Don for sharing and hope you enjoy the material.

Please note - there will be a MOWRA Membership meeting at the wastewater conference on Wednesday, January 11, 2006 at 3:30 pm.

Dan Milan,
MOWRA President



MOWRA 2006 Calendar of Events

January 10 - 12 Michigan Wastewater Conference
Kellogg Hotel & Conference
Michigan State University
East Lansing, Michigan

**August 28 - 31 NOWRA's
15th ANNUAL CONFERENCE**
Adams Mark Hotel in Denver, CO

Please Note:

2006 MOWTEC Training Schedule to be announced.

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Bill's Reflections

Over the years I have attended all of the NOWRA meetings except two, the west coast meeting and the Virginia 911 meeting. It would seem that one would have "seen it all, heard it all" and possibly "done it all." After the meeting in Cleveland, I returned feeling very "inept". After attending various meetings it confirmed that what we are "teaching" at the training center and when we talk to the various regulators, engineers and installers, we are heading in the "right" direction. When it comes to the water quality that we are producing from onsite systems there is a lot that we have not been concerned about, but probably should be conscience of. A lot of systems are designed to "take care of the effluent hydraulically" but the system is not looked at for total quality. This was brought out in the phosphorus meetings and the nitrate meetings. Most of the time, the "out of site" mind set, fulfills the need. With the onslaught of tighter soils, smaller lots, closer wetlands, and advanced treatment systems, we need to be looking at the quality of the water that is being discharged and the area it is going to. Dick Otis drove this point home in his general session speech highlighting "managing water quality by watershed." There are states taking the lead in these areas by addressing phosphorus and nitrates. In some parts of Michigan a mound system is experimental. Enough said.....

Bill Gregory
MOWRA Past President

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for MOWRA Newsletter**

MOWRA needs a driving force for the newsletter. This is a budgeted position. Do you know of a qualified person that would coordinate / facilitate the newsletter? Currently we have a printer that will do layout, printing, and mailing.

Responsibilities:

- Contact advertisers to update / place advertising. This is not a hard sell. We have a good reputation within the industry. Initial contact help is available.
- Coordinate "leaders in the industry" to submit small inserts of applicable information on industry news and views.
- Update current events and registration forms (available from the industry.)
- Search for applicable information to enhance the newsletter.
- Coordinate the layout, printing, and mailing of the newsletter. Currently the printer performs these functions. They will continue but need an industry coordinator as a driving force and contact.

Please contact:

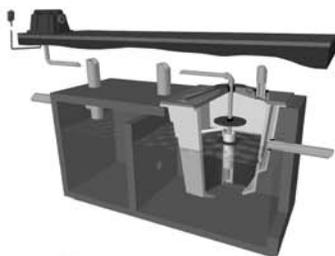
Dan Milan

MOWRA President

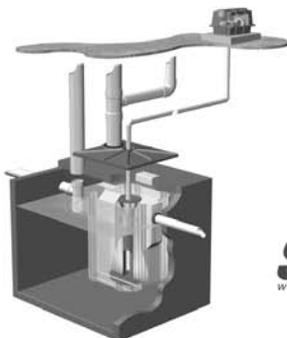
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2005 MOWRA SURVEY RESULTS

First, I would like to thank those who took the time to respond to our membership survey. THANK YOU; YOUR INPUT IS IMPORTANT!!!!

Ten individuals responded via e-mail and fax. I had hoped for more input, but this is a great start. The input you have provided will help us to form a strategic plan - your opinion counts. Hopefully, the questions were germane and relevant. I would like to continue this practice of seeking your input, so your Board and their actions best represent your interests and advances our member public agencies and Michigan businesses, both with the citizens and with our legislature.

Digesting the data was more of a daunting task than I realized, A simple 1 2 3 listing was not as simple as I thought. Members found several areas of concern to be equally important. Their priority number rankings were grouped in order to show which areas held the highest level of interest.

The following summary follows the form of the original survey.

I. Question: Do you feel that this Board and this Association are providing you with the level of representation and service that you expect?

Response: 6 Yes 3 No 1 No Response

Some Written Comment:

1. "Tollgate is clearly an advantage as long as it continues to be used. My observation of existing system evaluator (class) is that Regulators do not attend with minor exception."
2. "...but we need to have regular meetings 3-4 times/ yr."
3. "Consumer protection and information services in conjunction with quality services and maintenance assurance will enhance the credibility of the sewage management industry. Promote legislation to require competent, reliable assessment of existing systems (as rental units), mortgage or loan requirement, change of ownership, maintenance contracts. Certification. Etc. "
4. "Work with Counties more to encourage them to provide designers with guidelines."
5. "I have questioned what the real intent of the organization was for a number of years. As such I think this survey is a great idea and efforts should be made to follow through on its results. As such I believe the Board should try to identify, prioritize and create a timeline concerning the items the organization will be focused on."
6. "We need a simple way to pass along information to members, written flyer, news briefs, call center for recorded updates, Etc."

II. Question: In what areas should this Association focus more of its resources?

PRIORITY RATING

Information on legislative activity	1st
Periodic member meetings	3rd
Training opportunities	3rd
News updates	2nd
Product review	3rd
Others (Written Comments)	See below

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MOWTEC RENOVATION

by James Kovitz

One of the initiatives undertaken this year was the updating, servicing and general area clean up of the NOVI MOWTEC site. The weather cooperated and all enjoyed the pace. Well, almost. Cell phone connectivity did cause some to walk to the sidelines to engage the caller in a focused dialog. Dr. Ted Loudon and Dr. Del Mokma were present and assigned tasks to MOWRA members, who then tackled their assignments. Dr. Loudon also took this opportunity to introduce a visiting professor, DR. NGUYEN VIET ANH, Deputy Head, Water Supply and Sanitation Division, Faculty of Environmental Engineering, Hanoi University of Civil Engineering. Our guest was observant, very inquisitive, asked many questions and freely relayed information on the design of Vietnam septic waste systems. During the first day lunch, DR. NGUYEN VIET ANH gave Power Point presentations; his slides showed installations during the construction phase and how Vietnam separates its waste streams.

On the work front, Dan Milan and Bill Gregory “tuned up” the above grade pressure dose system. Notice Bill stayed on the periphery, while Dan dodged the spray.

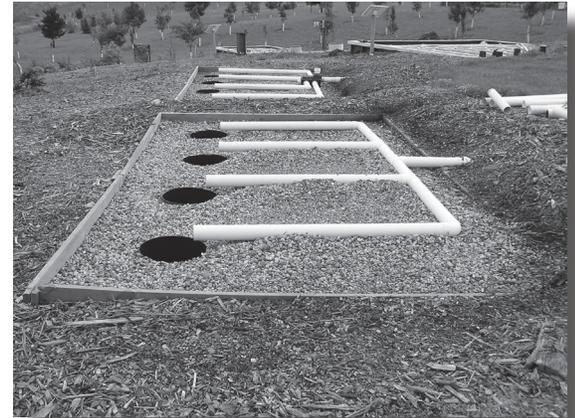
Ron Lindsay serviced the pump electronic controls, updated manufacturer’s components and then tested the system. Where did he go? Another phone call!

Marty DeRocco, Bruce Gruner and Mike Stephens could be seen working around the grounds completing assigned tasks and working to improve our hands-on public displays.

Ben Foster, Derek Foster and Randy Clark, along with others, worked on the removal and reconstruction of the in-ground displayed sample drain systems. The original systems were dug up, new treated lumber encasement boxes built and then the existing, and some new system components, reinstalled. The MSU site staff was kind enough to assign their personnel to man their backhoe to dig up and then recover the various system components.

Jim Kovitz focused on the at-grade drain stone and drain pipe display; regrading perimeter ground cover, pulling weeds and, general clean up and piping repositioning. Where’s Jim? Oh, he’s taking the picture. The real challenge of this task was the eradication of wasps and their nests from the pipes. MOWTEC session participants/attendees will use this hands-on display to position the drainpipe level; so all lines will disburse water equally. The crocks, at the open end of the drainpipe, hold buckets to catch the liquid flows that gauge the student’s ability to set the drainpipe level, for equal disbursement of water.

Did we finalize all tasks? No, who does? More upkeep needs to be done. In 2006, the Association will again ask members to support MOWRA and MOWTEC by helping maintain this site. Please consider blocking out some time from your busy weekly routine to help “dress-up” our showcase. I don’t know about you, but I’m always recommending that contacts and customers, who are able to visit the Novi site, do so. They can see firsthand the components of a system that they cannot see beneath their yards.



ANNOUNCEMENT – THE 2006 MOWRA MEMBERSHIP DRIVE

The Executive Officers of the MOWRA have decided to implement a membership drive with incentive rewards for those members who promote the Association and recruit new members. Below you will find the details of the membership drive, which begins January 1, 2006 and ends on September 30, 2006. Current membership dues are \$75 (\$50 for regulatory staff in governmental agencies).

A **new member** is an individual who:

- is not currently a member
- was not a member in 2005

All members, including new members, will receive:

- MOWRA membership for the 2006 calendar year
- NOWRA membership for the 2006 calendar year
- MOWRA and NOWRA newsletters, membership rates at the NOWRA sponsored national conference, and other benefits entitled to MOWRA and NOWRA members.

New members will also receive a MOWRA coffee mug as a gift for signing up.

Current members who recruit new members have additional incentive rewards available to them as outlined below in proportion to how many new members they recruit:

- **2 new members = MOWRA coffee mug**
- **5 new members = \$20 Home Depot gift card**
- **8 new members = \$40 Home Depot gift card**
- **10 new members = Free full-conference registration at the Michigan Onsite Wastewater Conference in January 2007.**
- **15 new members = \$100 Home Depot gift card**
- **20 new members = Free exhibit booth or 3 additional full-conference registrations at the Michigan Onsite Wastewater Conference in January 2007.**

All incentive rewards are cumulative (i.e. if you recruit 8 new members, you receive a coffee mug, a \$20 gift card, and a \$40 gift card).

In order to receive credit for each new member recruited, the current members name must appear in the “Referred By” line on the membership application. All applications must be received in the MOWRA office by September 30, 2006 in order to be counted for incentive rewards. A 2006 Membership Application is printed inside the newsletter, and will be sent to all 2005 members.

Send applications with dues payment to: **MOWRA, P.O. Box 708, Haslett MI 48840**
If you have any questions, please feel free to contact **Mike Stephens**, MOWRA Secretary/Treasurer at **(517) 339-8692**.

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Soil Evaluation

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1. Role of Soil in Effluent Renovation

Wastewater delivered to soil from a septic tank contains a number of contaminants (organic matter, soluble nutrients and a variety of microorganisms) that need to be removed before the wastewater joins with surface or groundwater. The role of soil is to remove contaminants by natural physical, chemical and biological processes that are active in healthy soil.

2. Required Soil Conditions

Since many of the natural processes required to treat wastewater depend on adequate aeration, unsaturated soil is essential for wastewater treatment.

Hence the soil must be sufficiently **permeable** for water to move through and beyond the soil profile. Adequate depth of soil ensures the wastewater is in contact with soil material for a sufficient period of time for treatment to take place. Information on the **depth** of soil and the ability of the soil to accept and transmit water (permeability) provides the basis for assessing the suitability of soil for wastewater treatment.

Together with information on the amount of wastewater produced, soil depth and permeability are used to design the form and size of the soil adsorption system.

3. Limiting Layers

The depth and nature of the limiting layer is critical to the selection and design of an onsite wastewater management system. Limiting layers are zones in or below the soil where limitations occur. Many soils do not provide adequate depth above materials that restrict water and air movement, or are seasonally saturated with water. Some soil layers are too permeable for good contact between soil and effluent. Limiting layers and conditions in Manitoba soils include water tables and saturated conditions, hard or dense layers within or below the soil with low permeability, and excessively permeable coarse sand gravel layers.

4. Soil Depth

In Manitoba a minimum of 1 metre (3.25 feet) of unsaturated soil present beneath the wastewater distribution system is needed to treat wastewater before contact with a limiting layer.

5. Permeability

The ability of soil to transmit water has traditionally been described as its permeability. Permeability is often estimated from other soil properties including texture, structure, consistency and color.

Hydraulic conductivity is a quantitative parameter (a number) that indicates water transmission.

Hydraulic conductivity varies with the soil moisture content, but is frequently measured by first saturating the soil.

6. Site Assessment

Soil and site assessment involves the following series of steps:

- Studying local soil information from the province's soil maps
- Conducting a visual assessment of the site to identify landscape features
- Probing the soil to delineate soil resources on the lot
- Excavating soil borings and pits to prepare profile descriptions of major soils on the lot
- Matching the soil resource to appropriate treatment technology through a suitability assessment

7. Soil Profile

Physical and chemical properties of the soil materials related to water and air movement and storage, root growth, and biological activity need to be investigated to gain an understanding of the quality of the available soil materials for wastewater treatment.



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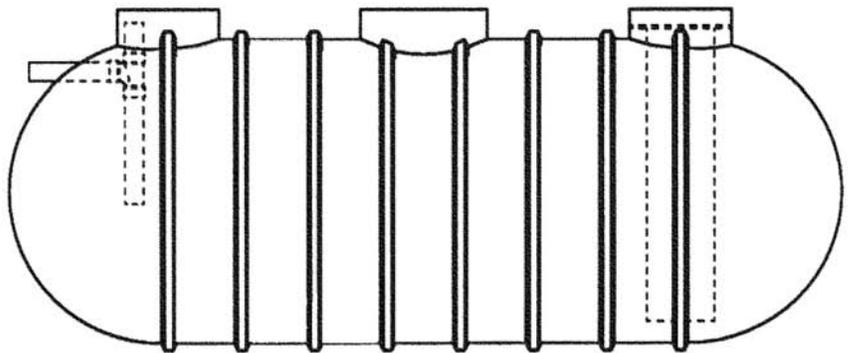
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TUESDAY

THREE CONCURRENT SESSIONS

I BASICS OF ONSITE

Similar to previous years, but with dynamic speakers from out of state – Dave Lenning Washington Department of Health and Dave Gustafson, University of Minnesota

- Overview of Conventional Systems
- Soils & Siting of Systems
- Construction Practices
- Final Inspections
- Troubleshooting and Failure Analysis

II ADVANCED ONSITE TREATMENT

- How Advanced Systems Work
- Health Department O&M Enforcement Programs for Advanced Systems
- Maintenance and Troubleshooting Techniques for Advanced Systems

III LASER SURVEYING SCHOOL FOR ONSITE INSTALLERS & SANITARIANS

This session will be taught by Larry Brown Extension Engineer at the Ohio State University. Larry has taught similar sessions for Ohio Contractors for many years and a national counsel at the NOWRA Annual Meeting. He uses materials written by the contractors familiar with field practice.

FOR MORE PROGRAM DETAILS, SEE:

www.meha.net, www.mowra.org,
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WEDNESDAY

A.M. GENERAL SESSION.

Celebrating 55 years of the Onsite Conference
Keynote speakers include Kathy Halvorsen from Michigan Technological University presenting results of a Great Lakes Health Department Survey of Local Health Departments' Readings to Institute Management Problems and David Lenning of the Washington Department of Health, Reviewing Progress with Implementation of Management Programs in Washington.

P.M. CONCURRENT SESSIONS

TRACK I Mark Scott, MSTA, Moderator
New Septage Storage Guidelines
Grand Traverse Septage Receiving Station

TRACK II

- Installer and Service Provider Education and Certification
- Design Flow for Cluster Systems
- Experiences in Management

WEDNESDAY (continued)

3:30 p.m. ASSOCIATION MEETINGS

- Michigan Septic Tank Association
- Michigan Onsite Wastewater Recycling Assoc.

3:30 p.m. TRACK III

Local Health Department Responsibilities in Septage Management

- Program Responsibilities
- Understanding Nutrient Management
- Recordkeeping Helps

THURSDAY

TRACK I Mark Scott – Moderator

- Septage Processing
- Septage Storage Systems
- Passing on the Business
- GPS Tracking

TRACK II

- Drip Dispersal Systems
- Phosphorus Removal Technology and Management
- Matching System Design & Installation to Soil Conditions
- Using System Inspection Results

FOR MORE INFORMATION, SEE:

www.meha.net, www.mowra.org, www.msta.biz

ADVANCED REGISTRATION REQUIRED

DEADLINE: DECEMBER 29, 2005

Instructions:

1. Each Registrant must complete a separate form.
2. Complete all parts of the form. Please check appropriate box(es) below.
3. Copies of this form may be used.
4. Group checks accepted with a separate form for each registrant.
5. No refunds will be granted after December 29, 2005.
6. Hotel reservation (*PLEASE* reserve prior to 12/19/05), Kellogg Center 800-875-5090 or 517-432-4200.

REGISTRATION FORM – Remove and mail

Name: _____

Agency/Business: _____

Address: _____

City/State/Zip: _____

Telephone No. (Daytime) _____

Fax No. _____

E-mail: _____

Please check which days/sessions you will attend

Tuesday Exhibitor Sponsored Day No Fee

Check which Tuesday session you wish to attend

Basic Advanced Laser Surveying

Two days, January 11 & 12, at \$80.00 \$_____

Wednesday, January 11th only at \$55.00
(includes sponsored social hour) _____

Thursday, January 12th only at \$55.00 \$_____

\$10.00 late fee after December 29 including Tuesday

Note: Full registration fee includes lunches on all three days, break snacks, social hour

MSTA – Banquet tickets (up to two free for current MSTA members)

___ MSTA member free tickets – (limit two) No Cost

___ Banquet tickets at \$30.00
(Non MSTA or extra for MSTA members) \$_____

Total Enclosed: \$_____

Mail Registration Form and check made payable to:

Michigan Wastewater Conference to MALPH

MALPH

P.O. Box 13276

Lansing, MI 48901

Telephone: (517) 485-9033

Fax No. (517) 485-6412

www.meha.net

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CERTIFIED

NOWRA announces the First Annual Installer Academy & Tradeshow

From December 13-16, 2005 at the fabulous Riviera Hotel
in the heart of the Las Vegas strip!

- Industry training events - Bruce Lesikar of Texas A&M and Dave Gustafson, Sara Christopherson and the crew from U of Minnesota.
- Extra special all day business event you won't want to miss - Ellen Rohr of Bare Bones Biz will help you **MAKE MORE MONEY** - nothing like you have ever seen before!
- Exhibition hall filled with the key tools of the trade.
- Special exhibitor training and certification on products you use every day.

Contact NOWRA

2005 National Onsite Wastewater Recycling Association's Conference

A brief review...

NOWRA's annual technical educational conference was held October 10–13 in Cleveland, Ohio. The program presented over 70 technical sessions – addressing regulatory and critical issues affecting state projects. The popular Onsite Basics A-Z was well attended.

The number of exhibits (170+) really surprised most attendees. Manufactures, engineering firms, associations, related publications, and suppliers opened their booths for discussions on equipment, supplies, and technologies related to the Onsite Wastewater market. It was reported that the number of attendees reached 800.

IN THE WATER BUSINESS...

“The main speaker for the General Session, Richard Otis, PhD., PE., vice president of applied technologies with Ayres Associates in Madison, WI, encouraged attendees to think of themselves as being “in the water business,” as opposed to being in the treatment, recycling, disposal, or decentralized business.”

Otis advocated managing water quality by watershed, rather than by political boundaries – county, city, village, town. The approach makes sense, he said, because watersheds are “nature’s boundaries.”

WATERTIGHT TANKS

The general session also addressed the septic tank requirement contained in the latest draft of the Model Performance Code, now undergoing peer review. The code would require tanks to:

- Be designed and certified by an engineer as structurally sound, with verification by post-installation testing.
- Be watertight to the top of the riser, including the lid.
- Treat waste to specified BOD and TSS levels, be pumped at specified intervals, and include an effluent filter with a reasonable maintenance schedule.
- Have at-grade safety features to prevent unintended or child entry.

A panel discussion took place with different views on specific points reviewed.

WATER CONDITIONING

The program on Oct. 13 included an all-day symposium addressing the controversy about whether backwash from water conditioning units, such as household water softeners, impairs the operation of onsite treatment systems.

Some manufacturers claim the backwash has no adverse effects. Others issue cautions, some times citing backwash as a violation of the system warranty. Publications issued by public officials and regulators state that backwash should not go into treatment systems at all. The water conditioning industry disputes these claims.

The State of Michigan and the MOWRA membership was well represented in Cleveland.

Facts and Figures pulled from: Pumper, December 2005 – NOWRA Report, Ted Rulseh.

2006 MEMBERSHIP APPLICATION

Membership Information:

Name: _____ **Company/Agency:** _____

Member Category (circle one): Site Evaluator – Soil Scientist – Designer – Engineer – Supplier – Vendor – Installer – Contractor – Operator – Manager – Maint/Service Provider – Compliance Monitor – Regulator – Academic – Researcher – Other – Manufacturer – Student – VIP (Very Interested Party – i.e. legislator, developer, builder, etc.)

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

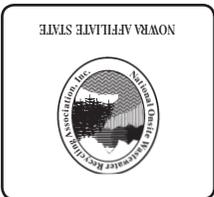
Voice Phone: _____ **Fax*:** _____ **Email:** _____
**Please note any limits to fax receiving time.*

Referred By: _____ (New members – please list who referred you to MOWRA)

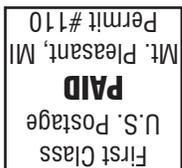
Membership in the Michigan Onsite Wastewater Recycling Association enrolls you as a constituent member of the National Onsite Wastewater Recycling Association. Membership dues are for the calendar year. Membership renewal invoices are sent out at the beginning of each calendar year.

<i>Membership Dues</i>	<i>\$75.00 Full member (\$50.00 Regulator)</i>
<i>MOWTEC Contribution</i>	_____
<i>(Optional - \$25.00 suggested)</i>	
<i>Total Enclosed</i>	_____

Please make checks payable to MOWRA and return to: **MOWRA, PO Box 708, Haslett, MI 48840-0708**



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