



# Skeeter Scanner

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## THIS ISSUE:

- PopularScience.com No Longer Accept Comments.
- Midland New Forman
- GHS
- NPDES update
- Gypsy Moth Update
- Cost of Texas WNV Outbreak
- MMCA Scholarships
- MMCA Board Nominations
- MMCA Award Nominations

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INFORMATION  
AND EDUCATION  
COMMITTEE



[www.mimosq.org](http://www.mimosq.org)

## President's Message

**"It's what you learn after you know it all that counts." – John Wooden**

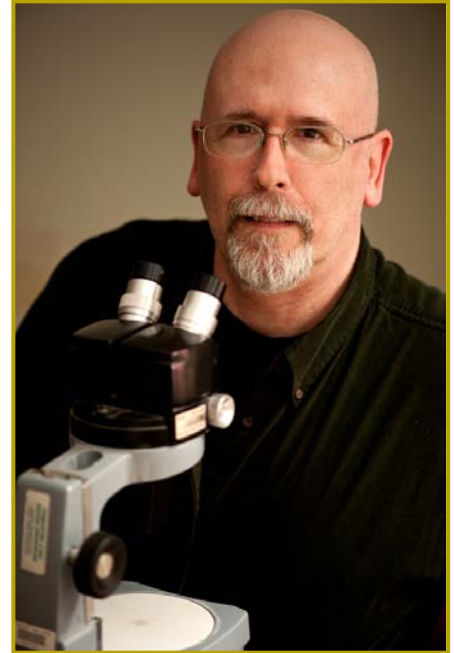
Another season is winding down and we are going through the annual process of reflecting on the transpired events and reviewing lessons learned. There is always room for improvement, experiences to learn from and improvements to be made. We typically have "non-typical" seasons that always add to our database of mosquito knowledge. We can use this time to lament on what went wrong or how we can think about how we will handle similar challenges in the future. The choice is ours.

All of this experience gives us the tools and opportunity to pass on our knowledge to our colleagues and the citizens of Michigan. MMCA gives us a platform from which to operate and serve. It is also a place where we can continue our own learning and improvement. The members of MMCA are great resources and our accumulated experience comes into play for each other.

This is also the time of the year when as an association we gear up for two big events of MMCA, the 7F training session and our annual conference. A lot of hard work goes into these events and they are a big part of MMCA. These two annual events put on by MMCA are great examples of how we serve our industry and the citizens of Michigan.

Regarding the MMCA conference it will take place at the Radisson in Lansing on February 19-20, 2014. If you have any ideas for talks about recent work or ideas you would like to share, get in touch with Charlie Dinsmore at (989) 832-8677 or [cdinsmore@co.midland.mi.us](mailto:cdinsmore@co.midland.mi.us).

Peace,



*Douglas Allen*

## **PopularScience.com Will No Longer Accept Comments on New Articles. Here's Why.**

Comments can be bad for science. That's why, here at PopularScience.com we're shutting them off.

It wasn't a decision we made lightly. As the news arm of a 141 year old science and technology magazine, we are as committed to fostering lively, intellectual debate as we are to spreading the word of science far and wide. The problem is when trolls and spambots overwhelm the former, diminishing our ability to the latter.

That is not to suggest that we are the only website in the world that attracts vexing commenters. Far from it. Nor is it to suggest that all, or even close to all, of our commenters are shrill, boorish specimens of the lower internet phyla. We have many delightful, thought-provoking commenters.

But even a fractious minority wields enough power to skew a reader's perception of a story, recent research suggests. In one study led by University of Wisconsin-Madison professor Doninique Brossard, 1,183 Americans read a fake blog post on nanotechnology and revealed in survey questions how they felt about the subject (are they wary of the benefits or supportive?) Then, through a randomly assigned condition, they read either epithet – or insult-laden comments (“If you don't see the benefits of using nanotechnology in these kinds of products, you're and idiot”) or civil comments. The results, as Brossard and coauthor Dietram A. Scheufele wrote in a New York Times op-ed:

Uncivil comments not only polarized readers, but they often changed a participant's interpretation of the news story itself.

In the civil group, those who initially did or did not support the technology – whom we identified with preliminary survey questions – continued to feel the same way after the comments. Those exposed to rude comments, however, ended up with a much more polarized understanding of the risks connected with the technology. Simply including an ad hominem attachment in a reader comment was enough to make study participants

think the downside of the reported technology was greater than they'd previously thought.

Another, similarly designed study found that even just firmly worded (but not uncivil) disagreements between commenter's impacted readers' perception of science.

If you carry out those results to their logical end – commenters shape public opinion; public opinion shapes public policy; public policy shapes how and whether and what research gets funded – you start to see why we feel compelled to hit the “off” switch.

A politically motivated, decades-long war on expertise has eroded the popular consensus on a wide variety of scientifically validated topics. Everything, from evolution to the origins of climate change, is mistakenly up for grabs again. Scientific certainty is just another thing for two people to “debate” on television. And because comments sections tend to be a grotesque reflection of the media culture surrounding them. The cynical work of undermining bedrock scientific doctrine is now being done beneath our own stories, within a website devoted to championing science.

There are plenty of other ways to talk back to us, and to each other: through Twitter, Facebook, Google+, Pinterest, livechats, email, and more. We also plan to open the comments section on select articles that lend themselves to vigorous and intelligent discussion. We hope you'll chime in with your brightest thoughts. Don't do it for us. Do it for science.

## **Midland County Mosquito Control - New Foreman**

MCMC has hired a new field foreman, Brett Ireland. Brett has worked at MCMC for three seasons with previous experience as a Forester, Park Ranger and Director of Parks and Recreation Department. He has a degree in Forestry and Wildlife Ecology from Michigan Technological University. Hobbies include painting, music, hunting and fishing. Welcome Brett when you see him at an MMCA event.

## **Modification of the Hazard Communication Standard (HCS) to Conform with the United Nations' (UN) Globally Harmonized System of Classification and Labeling of Chemicals (GHS)**

December 1<sup>st</sup>, 2013 Training Requirements for the Revised Hazard Communication Standard OSHA revised its Hazard Communication Standard (HCS) to align with the United Nations' Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and published it in the Federal Register in March 2012 (77 FR 17574). Two significant changes contained in the revised standard require the use of new labeling elements and a standardized format for Safety Data Sheets (SDSs), formerly known as, Material Safety Data Sheets (MSDSs). The new label elements and SDS requirements will improve worker understanding of the hazards associated with the chemicals in their workplace. To help companies comply with the revised standard, OSHA is phasing in the specific requirements over several years (December 1, 2013 to June 1, 2016).

This training will also need to be conducted for new hires going forward.

"Exposure to hazardous chemicals is one of the most serious threats facing American workers today," said U.S. Secretary of Labor Hilda Solis. "Revising OSHA's Hazard Communication standard will improve the quality and consistency of hazard information, making it safer for workers to do their jobs and easier for employers to stay competitive."

### **Active Ingredient Changes**

Chemical control of mosquitoes is in a period of transition, with exciting innovation and product introductions, but also some cancellations of materials that have been available for years, and regulatory scrutiny of many other products used by organized mosquito control programs and/or by homeowners and Pest Control Operators.

Loss of active ingredients are relatively rare, but several active ingredients commonly used in public health pesticides are now scheduled for

cancellation of registration, together with all of the products based on them. They are:

Resmethrin, Temephos, Allethrin, *Lagenidium giganteum*, Endosulfan

American Mosquito Control Association (AMCA) has been notified by BASF that they will no longer be able to produce or sell Agnique MMF, although they indicate that its registration will likely continue for the indefinite future.

A large proportion of common vector control products are now undergoing the regulatory process known as Registration Review, with work plans and decision documents planned for the next few years ([http://www.epa.gov/oppsrrd1/registration\\_review/schedule.htm](http://www.epa.gov/oppsrrd1/registration_review/schedule.htm)). While many of these materials underwent Reregistration in the last decade or so, new data requirements have been imposed regarding possible endocrine impacts, endangered species impacts, etc., and these may have consequences for the availability of some public health pesticide materials.

At the 2013 AMCA Washington Days, EPA officials indicated that user data may be important for some materials to retain current use patterns without significant new restrictions. Examples of common mosquitocide constituents undergoing Registration Review include:

Bti, Bifenthrin, Chlorpyrifos, d-Phenothrin =  
Sumithrin, Etofenprox, Malathion, Naled,  
Permethrin, Piperonyl Butoxide = PBO,  
Pyrethrins, Spinosad

The Legislative and Regulatory Committee will be evaluating the development of an application that can be used by AMCA members to record and store actual pesticide use to better demonstrate which public health pesticides are used, where and how much are used. Consideration of this would greatly enhance our ability to promote the benefits of public health pesticides and better demonstrate the percentage of public health pesticides actually used by our members against overall pesticide usage.

## Tuscola Mosquito Abatement Helps Clean up Cass River

Approximately 50 area residents gathered on July 20 to remove debris and various materials, including 40 tires, from the Cass River during the fifth annual Cass River Cleanup. This year, volunteers cleaned approximately six miles of the Cass River, from the Vassar State Game Area on M-46 to the RV Park in Vassar, explained organizer Peter Haake. The event began with breakfast at the gazebo in Vassar's Riverside Park, donated by McDonald's in Vassar and the Bavarian Inn Restaurant in Frankenmuth, and volunteers were given T-shirts donated by Grasel Graphics in Frankenmuth. Volunteers were on the river by 9 a.m. and finished at around noon.

Canoes were supplied by Frankenmuth Coach Boy Scout Troop No. 255 and the city of Vassar. During the cleanup, volunteers collected 40 tires which will be recycled with the assistance of the Tuscola County Mosquito Abatement. Volunteers found fewer tires this year, partly due to the higher level of the river and the limited access, Haake said. "It is amazing what people will dump into the river," he added.



### NPDES Update

For those who have been following National Pollutant Discharge Elimination System (NPDES) news, you probably remember that the Michigan Department of Environmental Quality (MDEQ) had established a moratorium on the 2012 Annual Reporting Requirement for permittees who were covered under the NPDES General Permit Nos. MIG030000 Mosquito and Other Flying Insect Pest Control, MIG031000 Nuisance Plant and Algae Control, MIG032000 Nuisance Animal Control and Fish Reclamation, and MIG033000 Forest Canopy Pest Control

The moratorium is no longer in effect. Therefore, those permittees (except the Utility Right-of-Way companies) who have authorization under the above-mentioned General Permits shall submit an Annual Report to the Department for any permitted discharge of pesticides which are applied to, over or near surface waters of the state.

In compliance with the provisions of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*) (the "Federal Act"); Michigan Act 451, Public Acts of 1994, as amended (the "Michigan Act"); Part 31, and Michigan Executive Order 2011-1; point source discharges of biological pesticides and pesticide residues resulting from the application of chemical pesticides are authorized to be discharged in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the general National Pollutant Discharge Elimination System (NPDES) permit (the "General Permit"). According to Part I.D.2. of the NPDES General Permit Nos. MIG030000 Mosquito and Other Flying Insect Pest Control, MIG031000 Nuisance Plant and Algae Control, MIG032000 Nuisance Animal Control and Fish Reclamation, and MIG033000 Forest Canopy Pest Control, a Permittee required to submit an application and defined as a *Large Entity* in Part II.A. of the General Permit must submit an annual report on the approved Department Annual Report Form EQP9205 to the Michigan Department of Environmental Quality, regardless of the occurrence of a discharge from the application of pesticides. The Permittee must file the Annual Report no later than **November 30, 2013**.

Should you require additional information, please contact Amanda Whitscell via phone at 517-331-5228, or electronic mail at [whitscella@michigan.gov](mailto:whitscella@michigan.gov). Ms. Whitscell is the new contact for NPDES in the State, since Jeff Fischer left that position earlier this year.

The Annual Report Form EQP9205 can be found at: [http://www.michigan.gov/deq/0,4561,7-135-3313\\_3682\\_3713-241279--,00.html](http://www.michigan.gov/deq/0,4561,7-135-3313_3682_3713-241279--,00.html). Completed forms should be submitted to the Permits Section, DEQ-WRD, P.O. Box 30458, Lansing, Michigan 48909-7958 or by e-mail to [whitscella@michigan.gov](mailto:whitscella@michigan.gov).

# Board Meeting Highlights

•Beginning this month, each edition of the Skeeter Scanner will contain highlights and updates from the MMCA Board meetings during the previous quarter.

•The Skeeter Scanner newsletter archives are now available on the MMCA website to allow broader access to those who want information on MMCA and mosquito control in general. The most current edition of the Skeeter Scanner will still be available to members-only.

•A revision to the Kenley Farrel Memorial Scholarship and William J. Lechel Memorial Scholarship guidelines now allows applicants the opportunity to win each scholarship one time. Also, Michigan residents who attend out-of-state colleges are welcome to apply.



## CALL FOR NOMINATIONS

### MMCA Awards

H. Don Newson

#### Distinguished Service Award

*To give recognition and appreciation to the recipient for his/her meritorious contributions made in the practice of mosquito control, and in support of the MMCA in its endeavor to improve quality of life.*

#### Requirements for Nomination

- The nominee shall be/have been active in the MMCA and shall be a current member in good standing
- The nominee must have made a highly significant contribution(s) to the field of mosquito control and/or the MMCA with special consideration given to:
  - Contributions and outstanding service to the practice of mosquito control
  - Activities and services, which bring meritorious recognition to the profession of mosquito control
  - Highly beneficial contributions and commitment on behalf of the MMCA
  - Professional involvement and contributions to community health and welfare

George B. Craig, Jr.

#### Mosquito Control Advocacy Award

*To give recognition and appreciation to the recipient for his/her outstanding contributions of promoting mosquito control and/or MMCA.*

#### Requirements for Nomination

- The nominee may be outside the mainstream of mosquito control practice, a business or industry, a group of people, or one particular individual
- Membership in the MMCA is not required
- The nominee is to have made an outstanding contribution(s) to mosquito control and/or the MMCA

**DEADLINE: JANUARY 8, 2014**

For more information and award applications visit the MMCA website: [www.mimosq.org](http://www.mimosq.org)

**William J. Lechel, II  
Memorial Scholarship**

# Scholarship Opportunities

**Kenley Farrel  
Memorial  
Scholarship**

*Complete scholarship information and applications are  
available on the MMCA website:*

## William J. Lechel, II Memorial Scholarship

The Lechel Scholarship is a student presentation competition held in conjunction with the MMCA Annual Conference. College students entering this competition will present findings from their research or a synopsis of existing research at the 2014 conference in Lansing.

Presentations on mosquitoes in particular are preferred, but related research may include information in health or pest-related fields including insects, weather, disease surveillance and science education. A total of 15 minutes will be allowed for each presentation.

**\$1,000 Award**

Sponsored by APM Mosquito Control & Clarke

**Application Deadline: November 1, 2013**

## Kenley Farrel Memorial Scholarship

“Climate Change: Its Potential Effect on Mosquitoes and Disease in Michigan.”

MMCA annually presents an essay scholarship to encourage interest in mosquito control and to assist a student financially towards a higher education in Natural Science or a related field.

**1st Place: \$1,000**

**2nd Place: \$250**

Sponsored by Hatfield Spraying Service & MMCA

**MMCA BOARD MEMBERS**

# CALL FOR NOMINATIONS

**MMCA encourages anyone with an interest in promoting mosquito control to please consider a position on the Board, we welcome new faces and new ideas.**

**Positions open for the nomination of candidates will be Vice-President, Treasurer, and Trustee. To propose a candidate please contact Rebecca Brandt, [brandtr@baycounty.net](mailto:brandtr@baycounty.net) or (989)894-4555.**

**Elections will be held during our Annual Business Meeting in February 2014.**

## Gypsy Moth Update

One of the most costly insects to invade the U.S. is the gypsy moth, *Lymantria dispar*. The gypsy moth is a serious threat to forest, woodland, shade trees and landscape plants in the United States. It is originally from the temperate regions of Europe, Asia and North Africa. In 1869 the gypsy moth became established in North America after escaping in Medford, Massachusetts during an unsuccessful breeding attempt with silkworms. Since then it has spread to other parts of the country and is well established in most areas of Michigan. It continues to move south and west. The caterpillars are the life stage that damages trees and most homeowners find them very annoying since their populations can be extremely high. Although they feed on vegetation, large caterpillars will wander onto the house, garage, patio, deck, yard furniture, or any object associated with residential living. When they do this in large numbers, especially after stripping trees of foliage, the experience can be unpleasant and upsetting. Unhealthy trees are weakened when defoliated making them susceptible to other insects and disease problems that can kill them. Several Counties in central Michigan (Bay, Gladwin, Midland and Roscommon) have gypsy moth suppression programs to aid homeowners in the fight against this destructive pest. The last outbreak of gypsy moth, when thousands of areas of hardwood forest were defoliated occurred in 2006. Spotty outbreaks continue to be problem in the central Lower Peninsula of Michigan as well as in other parts of the Northeast.

## *Orthopodomyia signifera*

One of Michigan's less common mosquito species is the *Orthopodomyia signifera*. Found in tree holes and possibly other container type habitats. There is not much known about this species as they apparently do not feed on humans and are not important as disease vectors.

The adults have a unique pattern of white scales on the anterior portion of the scutum. The legs have white basal and apical bands. They are sometimes caught in CDC or New Jersey Light



traps, though not frequently. The females are believed to take blood meals from birds. The larvae have a reddish brown pigment on the dorsal side. Comb scales are in two rows.

## Cost of West Nile Outbreak in Texas Exceeded \$47 Million for Acute Medical Care, Lost Productivity

The cost for acute medical care and lost productivity related to the Texas outbreak of West Nile virus in 2012 likely exceeded \$47 million, according to a new study recently released.

The state's 1,886 cases demonstrated the need for ongoing mosquito surveillance and the necessity of developing an effective vaccine, said Dr. Kristy Murray, who led the research conducted by the National School of Tropical Medicine at Baylor College of Medicine in Houston.

"When you look at what it is costing us as a society, it's enormous. Last year it was easily \$47 million for just acute medical care, and that's a very, very conservative estimate," Murray said. That figure doesn't include the public health expense of mosquito control. Researchers noted that a recent study showed that the cost of aerial spraying in Dallas County alone exceeded \$1.6 million.

Longer-term medical costs are likely to be substantial because some of those affected will need continuing rehabilitation and may be disabled, as well as the possible risk of chronic kidney disease, Murray said.

Researchers also observed a three-year pattern of increases in reported human cases in Texas. "We may be going into a cycle where we see an even larger outbreak every 10 years," Murray said.

The 2012 outbreak in Texas was more than two times the previous high, which occurred in 2003 with 735 cases, she said.

When comparing 2012 cases with the previous 10 years of data, researchers found no difference in the severity of the disease with regard to age. Researchers did find that older adults, minorities, and males were at highest risk for developing the severe form of the disease, which happens when the virus invades the nervous system.



# News From Around The Districts

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The heavy spring rains brought many flooded areas to Tuscola County, making for a very busy start to the season.

The phones began ringing earlier than usual due to a very impressive hatch of spring floodwater mosquitoes. This prompted a seven day a week work schedule for the end of May through June.

We have recorded record numbers of mosquitoes in our trap counts in the early summer months. Disease surveillance produced six positive (WNV) mosquito pools; these areas were treated with ULV adulticiding. In-house testing of two crows turned up negative results.

July 13<sup>th</sup> Mosquito Abatement held a very successful scrap tire drive. Nine other locations in the County also participated in Mosquito Abatement tire drives throughout the summer.

We are currently in the process of winterizing equipment and taking inventory.

This fall we will be working on plans for expanding our insecticide storage area and making some needed updates to the garage.

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The third quarter of 2013, which encompasses the bulk of the mosquito treatment season, started out wet with a bumper crop of *Aedes vexans* and ended on a dry note with populations checking in with some of our lowest historical numbers for August and September in a 31-year reporting history. August and September, both saw very little rain and cooler temperatures, so we were able to wrap up the season earlier than normal. The last official treatment day was September 20; clean-up activities took place the following week.

Our second annual scrap tire drive was held September 7 designed to rid the county of thousands of breeding habitats. One thousand seventy-one (1,071) tires were collected from Bay County residents.

Disease surveillance efforts continued through September. Two hundred fifty-one pools (or groups of mosquitoes) were assembled with 5,470 total females (mainly *Coquillettidia perturbans* and *Culex* mosquitoes). These were mosquitoes that were collected in either CDC traps, New Jersey light traps, or gravid traps. Compared to 2007-2011, disease activity showed a strong rebound for Bay County both in 2012 and 2013. Five mosquito samples from 4 unique locations as well as 9 birds (8 American Crows and 1 Blue Jay) tested positive for West Nile Virus this season. The mosquito samples were reported from Bangor Township, Monitor Township, Hampton Township, and Auburn. The birds were discovered in Bay City west (2), Bay City east (2), Pinconning Township, City of Pinconning, Monitor Township (2), and Bangor Township.

In July, we had an Aerial Treatment bid opening and expect to sign a two-year fixed wing contract with Earl's Spraying Service of Breckenridge, MI.

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If your memories are short, the first three months of the mosquito season resulted in numerous large broods of floodwater mosquitoes. However by August and September climatic conditions finally dried out and mosquito populations fell to normal or below normal for the remaining mosquito season. On September 20<sup>th</sup> we ended our season about a week earlier than normal due to low mosquito densities and the onset of autumn weather.

All our surveillance data is now complete for 2013. Final results had a total of 17 crows and 6 mosquito pools positive for West Nile virus. Two of the positive mosquito pools were on the Shiawassee National Wildlife Refuge property; with one of the positives collected at the Refuge headquarters. As in past years these positive detections on refuge property should allow for an uneventful process in securing permits for aerial larviciding in the spring of 2014.

Our Education Department is back working in local schools and already has 110 classroom presentations scheduled.

Tires just don't disappear! As in past years we had three week long tire drives and also accepted tires at our facility from May 1 – August 31. We collected a total of 12,771 tires this summer.

We continue to monitor Washington DC as the House and Senate were working on finalizing a partial Farm Bill in which the House version does deal specifically with the NPDES permit issue. It has always been our position that public health pesticides should be regulated under FIFRA as they have for over 40 years and further duplicative regulation under CWA is both inefficient and unnecessary. When appropriate, we will be contacting our federal legislatures to encourage them to include language that resolves this issue as the final version is developed during conference. However, recent events in Washington may put this item low on the Congressional priority list for the near future!

In 2014 our millage will be up for renewal; the first time in 20 years. As a result, in the next few months we will be looking at projected future budgets and revenue to determine the best course of action.

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We have, thankfully, made our way through another mosquito control season. In contrast to 2012's near mosquito-free spring, we had a very challenging start to this year with continuing rains through the spring and early summer. The late summer went better than most, though, with not too many mosquitoes and relatively few personnel or equipment problems. Unfortunately for our mechanic and supervisory staff we did not buy any new trucks, ATVs or other fun equipment this year so they are making do with the usual winterization, cleaning and maintenance chores.

West Nile virus remains an important concern for us, of course. We saw evidence of WNV activity over a broader than usual range of time and space this year. Historically, most of our WNV-positive birds and mosquitoes have been collected in the City of Midland but this year we had a few infected corvids from more rural areas. Both WNV isolations and control operations extended into the last week of September, much later than usual. There was one human WNV case reported from Midland County this year but we believe that case was acquired outside of the County.

The American Mosquito Control Association's 2014 conference will be held earlier in the year than most past meetings. Please consider joining us in Seattle, Washington, February 1 - 5. See the AMCA webpage for more information.

Enjoy the snow while it lasts. Before you know it the spring mosquito larvae will shepherd in another mosquito control season.

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## NPDES

Negotiations continue regarding the federal mandate for Clean Water Act National Pollution Discharge Elimination System (NPDES) permits for application of pesticides to or near water. The issue was addressed in the U.S. House 2013 Farm Bill but was not included in the Senate bill and must now be considered by the conference committee. Unless/until legislative relief is offered we must work under the guidelines of NPDES permits. For those of us working in Michigan, remember that any NPDES Permittee defined as a Large Entity in the Michigan permit must submit an annual report to the MDEQ on the approved form no later than November 30<sup>th</sup>. For further information on the NPDES permit and contact numbers see the article on page 4, of this issue of the Scanner.



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**FALL**