

# Northwest Michigan Onsite Wastewater Task Force 501(c)3

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## 2004 Annual Report



# **Introduction by the Chair.**

## **John Kelley. Planner Long Lake Township**

It is the Mission of the NWMOWTF to act as a regional clearing house for information, education and advocacy for viable, technologically sound and proven onsite wastewater systems that go beyond the standard septic and drain field.

The Task Force became a fully fledged 501(c)3 organization in August of 2003 under the guidance of the Joyce Foundation. Our purpose is to demonstrate that onsite wastewater treatment technologies which are accepted, proven and permitted in other states can and will work here in Michigan. The impetus is that the majority of new development in our area is taking place without a connection to a municipal sanitary sewer and little likelihood of being connected in the future, either because of cost or location. Northwest Michigan sandy glacial soils are particularly vulnerable to acceleration of groundwater contamination. We are committed to wastewater innovation which contributes to ground and surface water protection policies and practises.

Currently Michigan is one of only two remaining states which do not have a statewide Sanitary Code to regulate the installation, operation and maintenance of onsite systems. State regulations cover municipal sewer and treatment facilities but an estimated 30% of households still rely on onsite technologies which produce approximately 120,000,000 gallons of septage a year. Because of our regional base, we are one of the entities currently working with the Michigan DEQ team to develop Michigan's first draft State Sanitary Code.

The Task Force is taking a dual approach to addressing this unquantified, but potentially serious, threat to our groundwater and, ultimately, our drinking water supply.

***One:*** We have formed partnerships with organizations such as Michigan State University, Michigan Groundwater Stewardship, Michigan Rural Water Association and Michigan Onsite Wastewater Recycling Association. Through these partnerships we are undertaking a broad public outreach campaign to educate elected officials and their constituents on the proper care and operation of current onsite systems. At the same time we will be imparting information that alternative technologies are available which far surpass basic septic tank treatment.

***Two:*** The central issue, and one which has helped drive the newly created Department of Environmental Quality team currently working on a proposed state sanitary code, is the difficulty of getting such alternative systems permitted, installed and monitored. Only by long term operation and monitoring will the technology become generally accepted, available at a reasonable cost, and garner the confidence of local government, developers, onsite installers and regulators .

The Task Force consistently sends this message - that traditional means of regulating and monitoring septic system installation and operation are simply not adequate or uniformly and fairly applied. Change to meet the needs of a growing, developing, northwest lower Michigan population, while also protecting our most precious natural areas, is urgently required.

The leadership shown by the Joyce Foundation has given an invaluable legitimacy to our efforts.

We are working in close partnership with the US Environmental Protection Agency to promote the implementation of the Voluntary Manual for management of clustered and decentralized onsite systems. Municipal sewer collection systems and treatment facilities are extremely costly to design, build and operate.

The process from discussion to actual construction can deeply divide and polarize communities. However, the fact is inescapable that the production of wastewater from homes and businesses, poses an ever increasing threat to groundwater and drinking water quality. The Task Force is seeking to prove by example that there is a middle ground and the technology does work. The proof however, will need to be shown through working, sustainable demonstration sites - working here, in our region, on our soils.

This is an opportunity to make a profound impact on the living environment and demonstrate that sound technology does exist and can work effectively without forcing local governments or home owners to saddle themselves with a 40 year debt repayment and operation and upkeep bills. Although innovative systems and technologies are in use elsewhere in the U.S., they are in their infancy here in Michigan. The proof will be in the longevity and sustainability of systems in use and operating to code. Local officials are understandably reluctant to take a leap of faith without seeing hard evidence that anything other than what is now 'the norm' works and works well.

In order to distribute information and latest technology updates, we maintain a data base comprehensive list of government officials, health department and environmental science and engineering officers, staff and consultants, state and federal and private funding agencies, local citizen environment and lake association members, ground water protection and drinking water operating entities. Our web site, [www.michigan-onsitewastewater.org](http://www.michigan-onsitewastewater.org), shares available, current, written and internet based information. A web based ListServ has proven to be appreciated and well used.

National and Michigan Onsite Wastewater Recycling Association, National Small Flows Clearinghouse, Michigan State University, Michigan Groundwater Stewardship and Michigan Rural Water Association partner in investigating such matters as: health department budgets, county septic regulations, local population projections, the age of existing homes and septic systems, availability and suitability of alternative systems, water quality, and all aspects of septic pumping and disposal, including costs.

The goal of this 501(c)3 Task Force is to engage in activities which educate the public, local and regional policy decision makers on the advanced nature and application of onsite wastewater technologies.

We firmly believe that sound land use decisions, which protect the natural environment, go hand in hand with sound infrastructure planning and the appropriate application of such technologies. Although we advocate the adoption of proven advanced onsite systems, we do not advocate their use to invade environmentally sensitive areas. The Task Force demonstrates that the adoption of advanced wastewater treatment technology is an added protection for existing property owners and is a tool to implement or reinforce sound local planning and zoning.

Any change in attitude first requires creating a basic public understanding that an environmental problem with onsite wastewater collection and treatment potentially and actually exists. We are fighting ignorance and apathy - the 'out of sight, out of mind' reality. Acceptance that innovative, alternative options for collecting, treating and disposal of onsite wastewater work, and work well, will only come after clear, consistent, continuing education to create awareness that onsite wastewater does indeed pose a serious threat to both surface water, groundwater and drinking water.

***John Kelley. Chair***

# Task Force 2004 Board composition

**Board Chair:** \*John Kelley. Planner. Long Lake Township  
(231) 946-2249 planner@longlaketownship.com

**Vice Chair:** \* William Crawford Director Benzie-Leelanau Health Department  
231)882-4409 | FAX#: (231)882-2204 wcrawford@bldhd.org

**Secretary:** \* Dendra J. Best. Village of Bear Lake Wellhead Protection  
Treasurer Manistee Co. Library System.  
Member Michigan League for Human Services  
(231)864-2686 webservices@deertracks.com

**Treasurer:** \*Krysti Baker. Zoning Administrator Green Lake Township  
(231)276-9329 | FAX#: (231)276-9388 greenlak@traverse.net

**Board Members:** Anne Brasie. Executive Director The Watershed Center  
232 Front Street, Traverse City, MI 49684 (231)935-1514

Peter Read. Century 21 Real Estate. Traverse Area Association of Realtors  
591 Keystone Road, S., Traverse City, MI 49686 (231)633-1165

Chris Updegraff. Michigan Concrete Septic Tank Association  
510 Fifth Street, Cadillac, MI 49601 (800)937-3466

Kelly Hon. Michigan Rural Water Association  
P.O.Box 960, Harrison, MI 48625-0960 (989)539-4111

Michael Jones. R.S. Northwest Michigan Community Health Agency  
202 W. Garfield, Charlevoix, MI 49720 (231)547-6523

Madeline Houdek - Secretary. Michigan Septic Tank Association  
Houdek's Pumping Service, Inc.  
7531 E. Duck Lake Road - Lake Leelanau MI 49653 (231) 256-9241

There is currently one Board Vacancy

## Professional and Technical Advisors:

\*Dr. Theodore Loudon. P.E. Michigan State University

\*Dr. Richard Otis Ph.D., P.E., DEE. Vice President of Applied Technologies  
Madison, WI office of Ayres Associates.

\*Megan Olds. Regional Planning Program Manager  
Northwest Michigan Council of Governments.

# 2004 Task Force activities

**January:** The Task Force completed a comprehensive revision of the Bylaws: establishing an official address, increased the size of the Board to properly represent our 17 County/4 Health District service area, designate a calendar Fiscal Year, instituted a system of fiscal internal controls, better defined Officer / Board duties and attended the Michigan Onsite Conference in East Lansing as a presenter.



**February:** A General Public Meeting was held at Shanty Creek Resort, Bellaire, Antrim County. Speakers were: **Dana Debel:** Governor Granholm’s environmental policy advisor, who discussed the environmental water protection / septic management proposals referenced in the Governor’s State of The State Address and proposed Water Legacy Act.

**Dr. Roberta Dow:** District Ground/Freshwater Agent. Michigan State University Grand Traverse County Extension who demonstrated the relationship between onsite wastewater practices and groundwater protection issues.

**Harold Chase:** Senator Carl Levin’s northern Michigan representative who provided a federal overview of relevant grants, grant awards and program funding, policy issues and environmental and public health issues affecting northern Michigan.



**March:** The Task Force formalized a technical consulting contract with Dr. Ted Loudon. Michigan State University. Following the Shanty Creek meeting, Michigan Department of Environmental Quality formally requested the Task Force to participate as a Stake holder in developing a Statewide Sanitary Code.

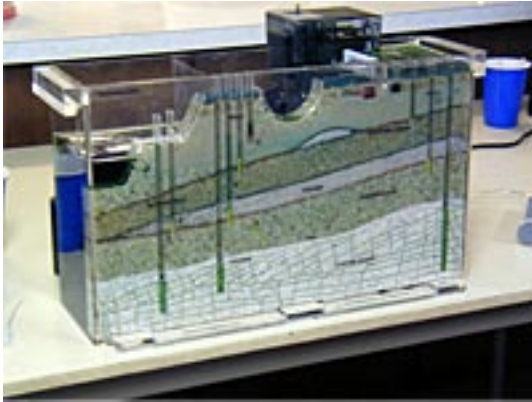
Vice Chair William Crawford is our representative.

The Task Force purchased Broadform General Liability Insurance Coverage.

A full color information folder was printed.



**April:** New Board member Kelly Hon of Michigan Rural Water Association joined the Task Force. In order to establish financial credibility, the Task Force submitted its initial partial year IRS 990, State of Michigan Charitable Solicitation Permit and switched to QuickBooks Pro Accounting software to format and report to the Board on a full accrual basis.



The Board approved the suggested MSU Groundwater Stewardship, community education format as supplied by Dr. Roberta Dow,. Groundwater flow and septic system models were purchased and loaned to MSU GSP.

It was the consensus of the board to ask the Joyce Foundation for permission to reallocate funds to review and recommence monitoring of several EPA alternative sites in Benzie County.

**On Earth Day Weekend**, the Task Force participated in a “Responsible Development:Sustainable Energy Fair” in conjunction with the Little River Band of Ottawa and the Manistee Citizens for Responsible development.



**May:** The Task Force held a Strategic Planning meeting and a Public Education meeting in Onekama. Dr. Richard Otis discussed the EPA Voluntary Management Guidelines for Clustered and Decentralized Systems and the application of Model One to a small lakefront community such as Onekama in Manistee County.

The Task Force purchased 1000 MSU Septic System Management brochures, 1000 National Small Flows Clearinghouse brochures on alternative types of systems and 1000 2 color 4 x 6 postcard and post or deliver to all units of local government in our service area. Purpose being to inform all units of our mailing and web address and encourage them to sign up for our web ListServ as the most cost effective and timely way to inform them of current status of deliberations on the state Sanitary Code.



**June:** Groundwater workshops began, utilizing 4 Americorps volunteers working from the regional Conservation District Offices. A free fecal coliform test was given away at each workshop. Shown here is a presentation given to the Bear Lake Womens Club. Representatives from an estimated 100 Townships and groups saw this presentation.



**July:** Dr. Loudon conducted a workshop on above ground systems. i.e. mounds, holding tanks, aerobic systems - design, suitability and maintenance issues. - at the Great Lakes Water Studies Institute at the Great Lakes Campus of Northwest Michigan College in Traverse City.

The Task Force appointed Northwest Michigan Community Health Agency's Michael Jones, Sanitarian for Charlevoix County as a Board Member. Madelyn Houdek- Michigan Septic Tank Association Secretary, with Mark Scott as alternate, filled the remaining Board seat.



**August:** The Task Force Board met at the Ralph P. MacMullan Center and Kirtland Community College in Roscommon County. Kathleen Halvorsen from Michigan Technological University discussed their Joyce Foundation funded "Strengths and Weaknesses of Great Lakes Onsite Sewage System Regulatory Programs." In 2003, MTU surveyed 100% of regulators in states which border the Great Lakes in a research effort to identify gaps in regulation of onsite septic systems. 51 of Michigan's 83 counties were represented in the responses MTU received. A copy of that report may be downloaded from the Task Force web site.

These survey results are timely in light of the efforts of the State Department of Environmental Quality's Task Force formed to draft Michigan's first State Sanitary Code and the introduction, on August 4 2004, of House Bill 6106.(A copy of the Bill may be downloaded from <http://www.mileg.org/documents/2003-2004/billintroduced/house/pdf/2004-HIB-6106.pdf> ) The Task Force compiled Onsite Reports from all 17 county MI health departments.

**Review of potential demonstration sites for innovative Onsite Systems: Dr. Ted Loudon** In 2004, 5 sites where a traditional septic onsite system is either not feasible or an additional treatment component is a viable proposition were surveyed. This report will be used to support an application for funding to construct a minimum of two working demonstration sites in 2005.

**Au Sable Institute:** In Mancelona, Antrim County. An estimate is \$50,000 for full replacement. The site is a lakefront group of cottages at an educational facility suitable for a permittable Advantex or Biolytix system. Global Remediation Inc. has already done pre-engineering work.





**Boardman River Nature Center:** Located just south of Traverse City in Grand Traverse County. A preliminary site plan and fund raising campaign exists. An advanced system is a good match for their mission of environmental and water conservation. With offices and meeting room for up to 90, a constructed wetland, potential toilets flushing with recycled water could lead to a 50 -80% water saving. Our role will be to assist with planning, design and funding.



Illustration copyrighted by Steve Feltz



A typical northern Michigan small lot, individual home. The space shown is the current location of the drain field. This 3 bedroom home was occupied by a single older resident who was already experiencing back up problems.

**Well closures:** On August 12, the first of 4 Task Force funded abandoned well closings took place at Summit Park in Mason County. Dendra Best attended on behalf of the Task Force. Sponsored in conjunction

with Mason, Manistee, Lake Conservation District, the event was very well attended. More photographs and information are on the Task Force web site. Mike Jones attended the August 25 Boyne City closing. Chris Updegraff attended at Boon August 21. John Kelley on August 24 in Traverse City.

This proved to be a highly effective way to publicize the link between surface and groundwater contamination and the danger of an abandoned well becoming a direct conduit to pollution of a drinking water aquifer. It was also an opportunity to demonstrate the groundwater flow models and show how a shallow drinking well can easily become compromised by a failing onsite system.





The Task Force received a request from Dave Neiger, Benzie County Planning for a NWMOWTF representative to attend their next 3 Planning Commission meetings. Bill Crawford, and two DEQ representatives were asked to discuss set back ordinances for lake shore property and suitable soil structures.

The Task Force received a request from Filer Township in Manistee County for a NWMOWTF Board Member to attend a September DDA meeting. Filer Township is considering alternative treatment and/or clustered systems. Dendra Best attended.

The Task Force received a request from Pentwater Township/Village and Lake Association in Oceana County to attend a joint Special Meeting to present onsite options. This municipal partnership are considering a Master Utility Plan. Dendra Best attended.



**August:** Joyce Foundation awarded a second project support grant for the period September 2005 - December 2005.

**September:** Janet Person reluctantly resigned from the Board because of additional work pressure.

**October:** The Task Force held a Planning Meeting which affirmed we were still operating in compliance with the Mission Statement.

*[It is the mission of the Northwest Michigan Onsite Wastewater Task Force to encourage preservation and protection of drinking and surface water quality through adoption of appropriate technologies and operation and maintenance of onsite wastewater treatment systems. We serve as a nonprofit clearinghouse for education, information on available technologies, regulations, and applications in northwest Michigan.]*

The above statement says 'who we are'. Those present agreed that a 'what we do' statement should be included.

*The goal of this 501(c)3 Task Force is to engage in activities which educate the public, local and regional policy decision makers on the advanced nature and application of onsite wastewater technologies.*

*We firmly believe that sound land use decisions, which protect the natural environment, go hand in hand with sound infrastructure planning and the appropriate application of such technologies. Although we advocate the adoption of proven advanced onsite systems, we do not advocate their use to invade environmentally sensitive areas.*

*The Task Force demonstrates that the adoption of advanced wastewater treatment technology is an added protection for existing property owners and is a tool to implement or reinforce sound local planning and zoning.*

*The Task Force accomplishes its Mission by 2 actions: public education and identifying demonstration sites. We build regional networks and partnerships through public education and outreach. We bring information directly to elected and appointed local government officials and also to their constituents via their local community organizations. We offer working demonstrations of available proven onsite wastewater treatment technologies and advocate the clustered decentralized management models as published by US Environmental Protection Agency.*

The Planning Meeting defined appropriate income producing activities to enable the Task Force to sustain and expand its activities beyond the life of the Joyce Foundation funding period.

In October, Bill Crawford, Director Benzie Leelanau Health Department assumed the position as Board Vice Chair.

***Onkama Township, Manistee County***, convened a Special Meeting to formally agree to accept and participate in our RME planning grant. A letter of confirmation has been received from the Onkama Township Clerk. A preliminary meeting with the Onkama Water and Sanitation Committee discussed the upcoming State Sanitary Code, establishing a planning structure, a time line and rules of conduct. Onkama plans to begin face to face facilitated meetings with Dr. Otis in early Spring, but begin telephone and pre-planning meetings as soon as possible.

Task Force Chair John Kelley became a member of NOWRA, National Wastewater Recycling Association. The Task Force became an affiliate member of the Traverse Area Association of Realtors to strengthen our education and environmental links to that section of our service area.



**DOWN  
THE  
DRAIN**

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**ONSITE  
WASTEWATER  
INFRASTRUCTURE  
SYMPOSIUM  
OCTOBER 25  
9.30 am - 4.30 pm**

**Hagerty Center  
Great Lakes Water  
Studies Institute  
(US31N) Traverse City**

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**FOR MORE INFO  
AND AGENDA  
GO TO:**

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Sponsored by:

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Council of Governments**

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**Land Information  
Access Association**  
helping communities sustain their cultural and natural resources

Made possible by a grant  
from the Joyce Foundation

**No one really likes to talk about this smelly issue, but on October 25, the Northwest Michigan Onsite Wastewater Task Force presented the first of 2 symposiums at the new Great Lakes Water Studies Institute (GLWSI) and Maritime Center of Northwest Michigan College in Traverse City on the topic of dealing with human and industrial waste.**

From 9.30 am - 4.30 pm at the Hagerty Center 'Room C' of the Great Lakes Water Studies Institute Traverse City, in partnership with Northwest Michigan Council of Governments (NWMCOG) and LIAA (Land Information Access Association) regional, federal and state response to wastewater collection and treatment was addressed.

The goals of the Northwest Michigan Onsite Wastewater Task Force, which serves the 17 county northwest Michigan region, are: to build networks and partnerships with like minded water quality/ land use groups to address the management of wastewater collection and treatment, educate local and regional policy decision makers on the options available, conduct information and education workshops, offer working demonstrations of proven advanced onsite wastewater treatment technologies and advocate the clustered decentralized management models as published by US Environmental Protection Agency.

In this, the first of 2 symposiums on incorporating onsite wastewater planning as part of infrastructure mapping and land use planning, the Task Force joined forces with NWMCOG and LIAA. All 3 groups are actively pursuing cooperative, regional approaches to land use / quality of life issues based on protecting this area's most precious, and threatened, resource - surface water and groundwater while identifying 21st. Century ways to treat and dispose of wastewater from both commercial and residential onsite systems.

With the fast pace of growth and the pressure of development reaching ever further into northern Michigan small rural communities - identifying appropriate options to treat human and industrial wastewater, when traditional sewers are simply unaffordable or geographically impractical, is the central purpose of the Onsite Task Force.





An impressive list of speakers assembled to address the possibilities from local, state and federal perspectives.



**1. Megan Olds, Regional Planning Program Manager for Northwest Michigan Council of Governments** explained NWMCOG's role in regional infrastructure planning. The Onsite Task Force, in partnership with NWMCOG, will compile a regional wastewater infrastructure report in 2005 which will help project future costs to maintain, replace aging and extend existing sanitary sewers while identifying areas more suitable for onsite advanced commu-

nity systems. ( A similar report done by South East Michigan Council of Governments estimated the cost at \$14 to \$26 billion over the next 30 years to maintain the current traditional sanitary sewer infrastructure.)

**2. Four local community case studies** detailed differing responses to wastewater infrastructure.

a) Grand Traverse County's central septage treatment plant - Chris Buday. Director of Department of Public Works Grand Traverse County

b) Pentwater area Master Utility Plan and considered options - Village of Pentwater Manager Tim Taylor.

c) Mancelona Sanitary Sewer - issues to address / lessons learned - Brett Gourdie. Marketing Director Gourdie-Fraser Inc.

d) Onekama Township - the Onsite Task Force has awarded Onekama a grant to facilitate Responsible Management Entity (RME) planning and consideration of an overlay ordinance - Onekama Twp. Water and Sanitation Committee

**3. Janice Heuer, Environmental Engineer, State of MI DEQ Cadillac** (shown above), addressed Part 41 amended guidelines for permitting 'community' onsite systems in reference to Village of Lake Isabella ruling.



**4. Dr. Theodore Loudon P.E., Biosystems, Michigan State University and Bill Crawford** talked about the work of the Michigan Statewide Sanitary Code Task Force, House Bill 6106 and SB 1346 as they pertain to community clustered and decentralized systems. Dr. Loudon and NWMOWTF Board Member Bill Crawford of Benzie Leelanau Health Department are both regional representatives on the State Sanitary Code

development committee. The draft White Paper has now been released for general public scrutiny and can be accessed via a link from the Task Force web site.

**5. Lead speakers in the afternoon were Michael Cox from MDEQ Revolving Fund and Morris Beaton, Environmental Engineer with USEPA Region 5 Programs Branch, Water Division, State National Pollutant Discharge Elimination System (NPDES) Permitting Programs.**

Mr. Cox discussed the availability of Strategic Water Quality Initiative Funds to help small communities replace or repair failing or under-sized onsite systems as an alternative to constructing sanitary sewer systems.

Morris Beaton, shown here with Task Force Chair John Kelley, gave an introduction to US Environmental Protection Agency's Onsite department and EPA's purpose in developing and promoting the implementation of the Voluntary National Guidelines. Of particular interest to symposium attendees was an overview of EPA / State Revolving Fund available onsite programs and funding priorities for 2004/5.



**November:** Dr. Loudon attended the NOWRA Annual Conference in Albuquerque New Mexico and took with him Task Force publicity materials. An article about the progress of the Task Force was published in the September/October NOWRA Magazine.

**December:** The Task Force was asked to participate in the Michigan 4-H Youth Conservation Council weekend retreat at the Kettunen Center in Missaukee County. With other representatives of water related environmental organizations, Dendra Best discussed with 4-H teenagers from throughout the State the impact of septic/onsite systems on groundwater and the environment. As a result, MI 4-H YCC chose this as their Environment Initiative for 2005.



In partnership with the Task Force these enthusiastic teenagers will conduct a series of outreach workshops directed toward their peers and the general public.

If funded, the Task Force will assist them in creating a science workbook aimed at Grades 4-6 students. MI 4-H YCC students will attend our conferences and Symposia and assist with the ***Children's Groundwater Festival scheduled for Earth Day 2005.***

MI 4-H YCC students will present their activities and findings to a Michigan Senate Committee to be televised on MI Government TV. For more information go to [http://www.msue.](http://www.msue.msu.edu/cyf/youth/m4hycc.html)

[msu.edu/cyf/youth/m4hycc.html](http://www.msue.msu.edu/cyf/youth/m4hycc.html)



At the close of business at our Annual Meeting in December 2004, the Task Force:

1. Awarded a contract to conduct an Annual Audit to Wilson-Ward CPA.
2. Finalized a contract with Northwest Michigan Council of Governments to prepare a Regional Wastewater Infrastructure Report.
3. Confirmed that the Task Force was a scheduled presenter and exhibitor at the January 11-13 Michigan Onsite Wastewater Recycling Association Conference at the Kellogg Center, East Lansing.
4. Approved the submission of an application to USDA Technical Assistance and Training Grant Program.
5. John Kelley was unanimously re-elected as Chair as was Bill Crawford as Vice Chair, and Dendra Best as Secretary. In order to further strengthen internal Fiscal Controls, the office of Treasurer was separated from that of Secretary at Best's request. Krysti Baker was unanimously elected to serve as Treasurer for 2005.
6. Board Member Chris Updegraff now represents the newly formed Michigan Concrete Septic Tank Association.
7. Approved the Year End 2004 Financial Reports and 2005 Operating Budget.



## 2005 Activities Schedule

### *Public Education:*

**1. We will present a minimum of 3 web casts** (which will feature 3 speakers each with interactive Q & A) covering case examples of how communities have successfully addressed planning, installing and regulating innovative onsite systems.

The Task Forces will partner with The Local Government Environmental Assistance Network (LGEAN) which is a “first-stop shop” providing environmental management, planning, funding, and regulatory information for local government elected and appointed officials, managers and staff. Located at <http://www.lgean.org>, LGEAN enables local officials to interact with their peers and others online. In partnership with LGEAN, we will present 3 Internet based wastewater symposiums geared toward that constituency. The first 50 local registrations will be provided free of charge.

**2. The Task Force will continue to hold regional public meetings every 2-3 months.**

[Our target audience for both is local elected officials, planning and zoning boards, health department staff and advisory boards, community development organizations, realtors and land use entities, public administration staff, the onsite industry (designers, installers, inspectors and haulers), environmental groups, property associations, lake and river associations and community groups, individual home and small business owners.]

**3. Michigan State University Groundwater Stewardship.** 65 new workshops are scheduled for 2005. At each groundwater/ onsite wastewater workshop, we will target 10 prominent community facilities, or key community leaders who attend, to receive a fecal coliform test of their drinking water well. MSU will explain ground and surface water hydrology and geology. The Task Force will discuss onsite wastewater best practices and options.

**4. In partnership with Northwest Michigan Council of Governments [NWMCOG],** a report will collect data on regional land use and current and projected development patterns then compare that data with the projected cost of maintenance and provision of existing and projected sewer infrastructure and onsite systems.

Research topics to be covered in partnership with NWMCOG are:

- a. Inventory sanitary sewer systems to determine, through a questionnaire of local service providers/municipalities, the following:
  - \* Location of sewers
  - \* Area/miles covered
  - \* Number of households and businesses served
  - \* Average cost per user
  - \* 5-year projection of per user cost increase
  - \* Treatment plant capacity
  - \* Current operating costs of sewer system

- \* Projected increase in operating costs of sewer system
- \* Projected 10 and 20-year cost of routine maintenance, major upgrades and repairs
- \* Estimated costs of proposed new systems or expansions
- \* Rationale for line extensions

b. Document on-site system use including:

- \* Document number of households on individual home systems by county and health district
- \* Document estimated GPD total flow discharged to groundwater by county and health district from known tank size.
- \* Document number of commercial on-site systems, industrial systems, and hazardous waste systems by county or health district.
- \* Document number of existing Advanced Treatment Units by county and health district
- \* Document Number of on-site permits issued in 2001-2005 by county or health district
- \* Document reasons for on-site permits issued in 2001-2005
  - 1) Replacement
  - 2) New Construction
  - 3) Failure.

c. Document drinking and surface water data including:

- i) Filed Reports of contaminated groundwater, drinking water and surface water.
- ii) Incorporation of published watershed mapping
- iii) Incorporation of published overlay of critical soils and wetlands.

d. Overlay geographic areas where sanitary sewer lines and treatment irrigation fields and on-site systems are used within watershed boundaries, surface water areas, wetland areas, and critical soils and topographical data to determine areas which may be at-risk for contamination.

Map “critical impact” areas based on established scientific criteria and with input from regulating agencies and technical peer review.

e. We will also work in partnership with NWMCOG to host the second of 2 Regional Wastewater Infrastructure Symposium. The first, held in October 2004, detailed community case studies and funding options via EPA and MDEQ. The second will feature additional case studies.

6. We will also work in partnership with like minded groups to maximize the consistent flow of information through joint public education ventures. In 2005 we will partner with Michigan 4-H Youth Conservation Council who have chosen onsite education as their 2005 environmental initiative - this will include testimony given to the Michigan Senate.

7. Earth Day 2005 Symposium - Wastewater Innovation Expo at Little River Band of Ottawa Resort Conference Center. Vendors and designers of innovative, advanced onsite treatment systems and water conservation systems will be invited to present available technology at this 2 day event to compliment a Responsible Development/Sustainable Energy Conference.

Part of the registration will help provide hands on materials for a Children's Groundwater Festival. Geared toward 5th Grade students, the Festival will teach by providing fun activities in partnership with MSU Extension, Michigan Rural water Association and local educators.

***Onsite System Demonstration Projects - Planning and Partnerships***

1. Dr. Richard Otis will work with Onekama Township as facilitator for a community wastewater planning and education effort as Model One of the USEPA Voluntary Guidelines Manual which he helped to write.

2. The Task force is fortunate to be able to retain the services of Dr. Theodore Loudon for an additional 12 months as Engineering Technical Services advisor and coordinator with Michigan State University, National Small Flows Clearing House, National and Michigan Onsite Wastewater Recycling Associations.

3. We will continue to evaluate performance of existing EPA demonstration Benzie systems for a period of two years. In addition a grant is being sought to provide monitoring of 21 advanced treatment units in 4 northern Michigan health districts.

4. The Task Force will secure funding for construction of a minimum of 2 working demonstration onsite wastewater systems.

Other grants:

1. On December 24, the Task Force submitted an application for funding to USDA Rural Utilities Services Technical Assistance and Training Grant program - \$160,000
2. In January an application has been invited by the Frey Foundation.
3. In February an application will be made to Rotary Charities of Traverse City.