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June 2012

**BACKGROUND**

Michigan's environmental remediation and brownfield redevelopment programs are undergoing significant transformational change. This is a direct result of the efforts of the Michigan Department of Environmental Quality (DEQ) to align its efforts with Governor Snyder's 10-Point Plan to Reinvent Michigan, as well as to be responsive to the Office of Regulatory Reinvention's (ORR) January 2012 report to the Governor, recommending 30 changes in the statutes, rules, policies, and procedures of various programs managed by the Remediation Division (RD). The intent of the ORR recommendations is to:

- Remove excessive and burdensome regulations
- Streamline/modernize regulatory programs
- Provide more clarity and certainty for the regulated community
- Eliminate significant government mandated costs that have little corresponding benefit to Michigan citizens and the environment
- Make Michigan's regulatory environment more competitive



DEQ Director Dan Wyant addresses the Leaders and Legends at the CSI kickoff.

A Collaborative Stakeholder Initiative (CSI), designed to be responsive to the ORR Report, convened by the DEQ/RD in February of 2012 and resulted in 90 recommendations for program/policy change. The goals of the CSI were to:

- Foster an improved climate of trust, cultural understanding, and cooperation among stakeholders and DEQ/RD staff
- Achieve swift and durable implementation of recommendations to DEQ, including RD ORR recommendations, addressing seven (7) key issue groups:
  - Groundwater/Surface Water Interface (GSI) Pathway
  - Part 201 rules
  - Due care
  - Free product/Csat
  - Vapor intrusion
  - Cleanup criteria
  - Brownfield redevelopment

Additionally, during the spring of 2012, the Leaking Underground Storage Tank statute, Part 213 of the Natural Resources and Environmental Protection Act, 1994 PA 451, was amended and became effective on May 1, 2012.

In short, this newsletter provides:

- a 90-day update (accomplishments; next steps) on the CSI, focusing on the seven key remediation/redevelopment issue groups listed above;
- a status report on implementation of the Part 213 amendments;
- additional activity to support program reinvention;
- useful links to referenced documents and information.



*CSI Leaders and Legends and facilitators gather together one last time after the high energy session at Kellogg Biological Station.*

## **Remediation/Redevelopment Key Issue Updates**

### **Process Improvements**

#### **Accomplishments and Effects**

- ORR Recommendation No. 15 called for the elimination of the RD centralized Field Operations Quality Review Team (FOQRT). The RD has accomplished this task and replaced the field operations review with a District Peer Review Process. *This change shifts project decision making to field staff who have a greater understanding of the site and technical issues and have the expertise to use best professional judgment for that site.*
- RD has created new Technical and Program Support Teams (TAPS Teams) based largely on the CSI groups/issues. *These TAPS Teams serve as technical resources for all staff in cases where specific expertise is needed to efficiently review proposals, provide for effective training for staff and stakeholders, and provide for effective timely implementation of the CSI recommendations. The RD is focusing on risk management, not limited to risk assessment.*
- The ability to submit No Further Action (NFA) plans has been determined to apply to portions of properties or facilities. *This provides more options for positive end results from implementation of remedial responses.*
- The Response Activity Review Panel appointment invitations have been sent. Final confirmation of the panel is expected before the end of June 2012. *The panel is designed to provide for review of technical disputes.*
- The Site Inventory replacement for Site Listing is under development. Database updates are progressing. *The database will assist interested parties in tracking particular properties.*
- A Request for Rule rescission (3 packages) per ORR recommendations, R7a, c, e, i, has been submitted to ORR on May 9, 2012, for UST Inspection/Delegation, Transportation of Flammable and Combustible Liquids, and Liquefied Natural Gas. *The benefit of this action is to eliminate unused and outdated rules.*

- The Michigan Underground Storage Tank Rules (MUSTR) that require Owner/Operator Training and Certification as required by EPA became effective May 8, 2012. *Due to the delay in getting the rules implemented, the RD will allow owners and operators until January 1, 2013 to obtain the certification.*

#### **Next Steps:**

Director Wyant (DEQ) and Director Hilfinger (LARA) have recommended, and the Governor's office has concurred, that the Aboveground Storage Tank (AST) and Underground Storage Tank (UST) programs be transferred from the RD, DEQ, to the LARA Fire Bureau. The Executive Order transferring the programs is currently being drafted.

### **Groundwater/Surface Water Interface (GSI) Pathway**

#### **Accomplishments and Effects**

- ORR Recommendation No. 1 called for legislative changes to improve the procedures for evaluating and managing groundwater venting to surface water bodies.
  - RD has provided for additional staff funding in Water Resources Division (WRD) for GSI assistance and collaboration. *This action will provide for a more timely and coordinated review for GSI.*
  - The CSI GSI Group recommended Part 201 amendments, [Senate Bill No. 1090](#), which has passed both the Michigan Senate and House of Representatives, and is now on the Governor's desk for signature.
  - The WRD and the CSI GSI Group have drafted guidance that now allows for a mercury action level of 200 ng/l. *This significantly improves the GSI Mercury compliance process.*

*The DEQ expects to see a nearly immediate effect on Part 201 GSI determinations with several sites which will be brought to the team once the bill is signed into law. The benefits of the new legislation are that it creates flexibility in allowing for more progressive options in addressing groundwater venting to surface water including mixing zones, alternative monitoring points, and ecological and/or modeling demonstrations. For example, it provides resolution in cases where groundwater is venting to storm sewers by moving the compliance point to the outfall at the point of discharge to the surface water body. The bill broadens the options for self-implementation and defines the department's involvement in the approval process, when needed.*



*The Part 201 amendment that offers greater flexibility in evaluating venting groundwater issues is ready for signature by Governor Snyder.*

#### **Next Steps**

- The GSI TAPS team plans on developing a document that assists staff in understanding SB 1090 as part of the streamlined process for assisting in compliance with the GSI pathway. The usefulness of the document will be considered for incorporation into policy and procedures for all interested parties to use.
- The TAPS team is tasked with identifying and preparing policy and procedure for the technical aspects of SB1090 that are used for demonstrating compliance and/or the necessity for taking remedial action. For example, policy and procedure describing commonly accepted practices for ecological demonstrations is

being reviewed and considered. Other technical aspects including the “de minimis” concept and storm sewer sampling and compliance will also be included as part of the policy and procedure document. The policy and procedures developed will be vetted through the CSI team and ultimately through interested stakeholders.

- The DEQ will also work toward integrating the Part 201 changes into the Part 213 program. *This is expected to create a common understanding of the technical aspects and easier implementation of requirements, resulting in more compliance.*

## Part 201 Rules

### Accomplishments and Effects

ORR Recommendation No. 4 called for the rescission of all Part 201 Rules with the exception of the rules related to establishing generic cleanup criteria and screening levels.

- The CSI Stakeholders Group is developing recommendations for statutory amendments that will meet the intended objective of ORR Recommendation No. 4. *The result will streamline the requirements and provide for a better general understanding of the requirements and increased compliance.*
- The Part 201 Rules group has drafted amendments to create more opportunities and protections for self-implementation of response activities. *The approach is designed to encourage greater compliance with Part 201 and reduce the necessity for DEQ staff time for approvals and oversight.*
- The following CSI recommendations are some that have been selected for drafting of statutory language:
  - Endpoints & Closure
    - Certificate of Completion for acknowledging completion of a response activity;
    - NFA for something less than the original dimensions of a facility;
    - Set forth that unrestricted closures do not require obligations for monitoring or property restrictions;
    - Provisions that clearly state that a self-implemented remedy that complies with the statute & rules has equal status to a DEQ approved remedy;
    - Provision for a “No Further Interest” designation that the release or contamination does not rise to the level of regulatory interest.
  - Site Investigation & Use of Criteria
    - Parties to undertake a Conceptual Site Model;
    - Use of criteria as risk based screening criteria;
    - Use of site specific criteria;
    - Selecting a remediation method (non-numeric based) with requisite protectiveness



The CSI Part 201 Rules group sits down to talk about their recommendations.

## Due Care

### Accomplishments and Effects

ORR Recommendation No. 13 called for revision to DEQ’s policy for review of Due Care Plans for Small Business Administration (SBA) loans to be within a 45 day timeframe.

- The RD has implemented the 45-day turn-around for Due Care Plans submitted as a condition by the SBA for loan approval. *This expedites property transaction and ensures safe re-use of contaminated properties.*

ORR Recommendation No. 10 called for changes to the Part 201 soil relocation statutory language and associated rules.

- The Due Care TAPS Team has created an initial draft of statutory and rule changes to reflect CSI recommendations and identified issues with the recommendations that require further input. *These changes will enhance protection of public, health, safety and welfare.*
- The Due Care TAPS team has discussed the need for future education and outreach efforts to achieve CSI goals of making Due Care more understandable and successful as a core part of the 201 program. *Education and outreach will be designed to share and enhance knowledge of the program and protection of the public.*

#### **Next steps:**

- The 45-day review policy for Due Care Plans related to SBA loans will be memorialized in an internal policy document (draft by July 1).
- RD will continue making progress on the evaluation and implementation of the CSI recommendations.
- The CSI stakeholder group will be expanded to include more affected interests, to provide input to draft legislation and rules, and to vet education and outreach materials in development. (First meeting to be convened by mid-September)
- The RD will continue to develop draft education and outreach materials (ongoing).

#### **Free Product/Csat**

##### **Accomplishments and Effects**

ORR Recommendation No. 6 called for modifications to the methodology being used to address free phase contamination, and ORR Recommendation No. 11 called for clearer definition of the term “source” and description of source control for sites of environmental contamination.

- RD issued an internal memorandum on May 29, 2012 to eliminate the practice of using Effective Solubility to evaluate sites with free product. The memo was developed with the support of stakeholder input. The memo will be converted into a DEQ Policy and Procedure document with additional stakeholder review as appropriate.
  - *The effect of the new policy and procedure will reduce time spent on determining the presence/absence of non-aqueous phase liquids (NAPL), which provides little information about risks.*
  - *Enables holistic site/risk evaluations.*
  - *This approach may result in net environmental benefit (not utilizing significant amounts of energy to recover contaminants that pose no risk).*
  - *Uses risk based corrective action to manage sites where contaminants exist.*
- RD was instrumental in bringing the American Institute of Professional Geologists (AIPG) Light Non-Aqueous Phase Liquids (LNAPL) Workshop to the Department of Natural Resources Ralph A. MacMullen Conference Center on June 20-21, 2012.



*Free product collects in the basin of a leaking underground storage tank.*

- An internal policy and procedure memo is being developed to highlight and discuss the new terminology related to LNAPL.
  - *The memo highlights the statutory changes and will provide additional detail for staff in using terminology.*
  - *Aligns the use of terminology related to NAPL with both Parts 201 and 213.*
- At the request of the DEQ, ITRC will bring LNAPL classroom training to Michigan in October 2012 and will likely be held in the southern part of the state.
  - *This will allow additional staff and stakeholders to have training on management of LNAPL sites.*

### Next Steps/Timeframes

- Legislation for the clarification of source in Part 201 will be drafted in 1-2 months.
- DEQ Policy and Procedures will be drafted to describe how to manage LNAPL sites to include recoverability, monitoring, closure requirements, and conceptual site model requirements within the next 3-6 months and will include expanded stakeholder involvement.
- RD will continue to work with other technical groups on NAPL issues that are affected by the cleanup criteria, rules, and institutional controls.
- TAPS/Stakeholder meetings will be held in the next few months to discuss policy and procedure and to examine case studies to ensure continuity amongst the participants.

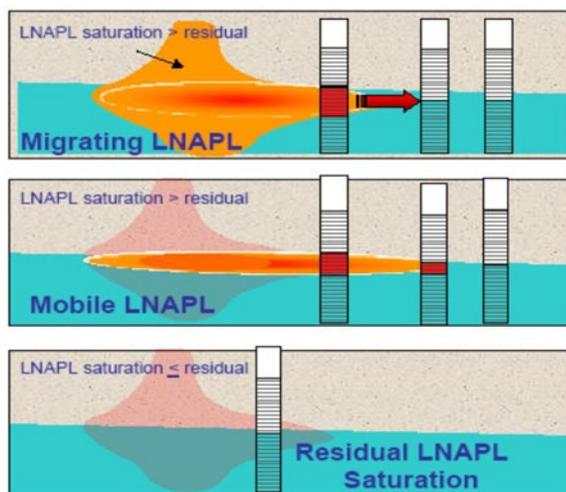


Diagram depicting NAPL behavior in the subsurface.

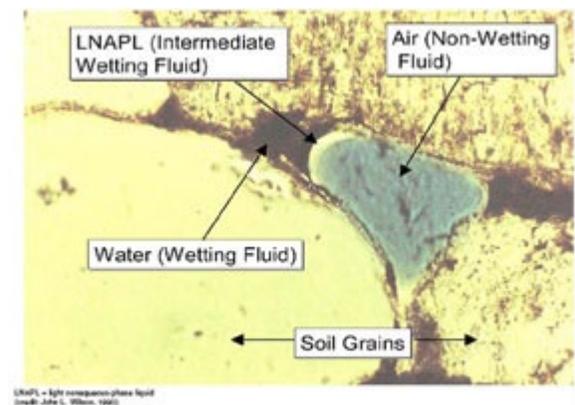


Image depicting residual NAPL between soil particles.

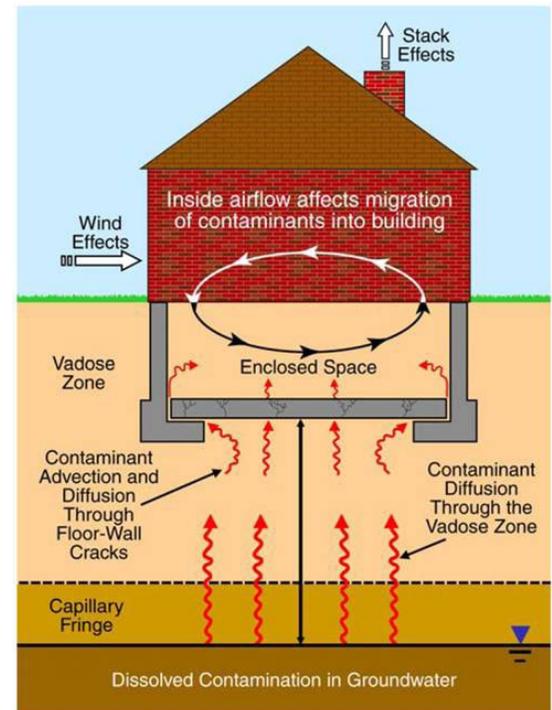
*"Thank you for your effort and patience. You never make me feel like you are "blowing off our comments" – far from that." - Mark Adamski, BP America*

### Vapor Intrusion

#### Accomplishments and Effects

ORR Recommendation No. 2 called for approaching the vapor intrusion pathway in a manner that is protective of human health and employs the latest in scientific advancements in this field. ORR Recommendation No. 9 called for consideration of MIOSHA Standards when evaluating due care for indoor air at facilities subject to these standards.

- Additions and modifications that were identified by the Vapor Intrusion CSI group were incorporated into the draft VI Guidance document prior to its release. Additions included flow charts of the process and a section to address VI in terms of property transactions. The Document was released for public review and comment on May 8, 2012. Following the end of the comment period, the draft document will become the policy and procedures referenced by the DEQ for technical issues related to vapor intrusion. *Release of the Vapor Intrusion Guidance Document has provided both staff and the regulated community with an understanding of how to approach this complicated and emerging pathway.*
- Four VI Guidance Document Rollout presentations were held between May 16, 2012 and June 14, 2012. The specifics for each are as follows:
  - May 16, 2012 at the West Michigan Chapter of Air and Waste Management Association's (WMAWMA) May meeting, held at Frederik Meijer Gardens in Grand Rapids.
  - June 6, 2012 at the Michigan Historical Museum and Library in Lansing.
  - June 12, 2012 at the Kirkland MTEC in Gaylord.
  - June 14, 2012 at the Michigan Association of Environmental Professional's (MAEP) June meeting, held at Cleary University in Howell.
- *The rollout presentation was given to over 200 participants around the state and numerous others have accessed the document on line. To date the Guidance Document which will become policy and procedure has been well received.*
- A stakeholders group with representatives from the regulated community, consulting (both environmental and industrial hygiene), MIOSHA, and the DEQ has been established. The purpose of the group is to discuss the use of MIOSHA and federal workplace exposure criteria to address workplace indoor air risks associated with vapor intrusion. The workgroup is currently evaluating draft language for potential implementation and modification of existing rules and/or statute.
- DEQ participated in an EPA Region 5 VI web conference on April 12, 2012. DEQ presented Michigan's needs and concerns regarding the soon to be released EPA VI guidance document. Some of the issues identified were a direct result of stakeholder input, such as the development of VI criteria for soil and the use of OSHA to address indoor air in a workplace.
- DEQ is currently participating on the ITRC Petroleum Vapor Intrusion (PVI) work group. This work group consists of vapor intrusion specialists from around the country that are working toward developing a guidance document to address the unique issues associated with PVI sites. Participation in this group is providing DEQ staff an opportunity to gain cutting edge knowledge regarding these sites, thus enabling easier determinations regarding when PVI may or may not need to be evaluated based on site conditions.



Conceptual Site Model depicting vapor intrusion.

*"I thought the Vapor Intrusion update was very helpful and I hope the outreach effort continues, as we all learn more about the subject. I also wanted to let you know how impressed I was by the new vapor intrusion guidance documents. After reviewing them, I was struck by how comprehensive and detailed they are. Clearly, a lot of work went into getting these documents out to the public in such a short period of time. Great job by everyone involved!" - Mike O'Hearn, AMEC*

## Cleanup Criteria

### Accomplishments and Effects

ORR Recommendation No 3 called for revision to the cleanup criteria based upon exposure assumptions and calculations that represent the best available risk assessment science to be protective of human health. ORR Recommendations No 4 called for the rescission of the rules with the exception of the Part 7 Rules that contain the equations for the cleanup criteria.

EQUATION FOR NONCARCINOGENS:

$$DWC = \frac{THQ \times RfD \times BW \times AT \times RSC \times CF}{EF \times ED \times IR_{gw}}$$

where,

DWC (Drinking water criterion)	= chemical-specific (µg/L or ppb)
THQ (Target hazard quotient)	= 1
RfD (Oral reference dose)	= chemical-specific (mg/kg-day)
BW (Body weight)	= 70 kg

Many factors are involved in the calculation of cleanup criteria.

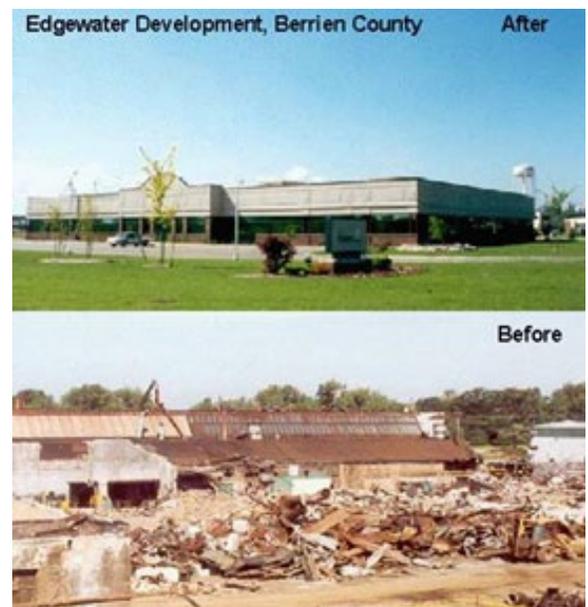
- CSI Cleanup Criteria Issue Group members, as well as additional stakeholders with relevant expertise and experience, have continued to meet and discuss exposure routes, cleanup criteria calculations and other technical issues related to the cleanup criteria topics.
- DEQ staff have consulted with staff from the Attorney General's office on the matter of removing the cleanup criteria tables from the Part 201 rules.
- DEQ staff have consulted with stakeholders of the Vapor Intrusion Issue Group and MIOSHA representatives on the matter of the applicability of MIOSHA standards for the vapor intrusion exposure pathway.
- Draft amendments to Part 201 have been prepared by external parties to extend the deadline to update the Part 7 cleanup criteria rules to December 2013.
- DEQ staff from the Cleanup Criteria Issue Group have participated in crossover discussions with other CSI technical Issue Groups to facilitate harmonization of recommended changes to the Part 201 cleanup program rules.

## Brownfield Redevelopment

### Accomplishments and Effects

The CSI recommendations called for brownfield enhancements thru Act 381 amendments and the elimination of the tax increment financing sunset.

- The Brownfield CSI team met and discussed all of the recommendations that were developed in the initial meeting. From the 22 recommendations, 14 recommendations are included in draft language for an amendment to Act 381. The recommendations not included in the draft language were implemented through a policy change, did not require statutory change, or were rejected due to time constraints.
- A draft bill has been requested from the Legislative Services Bureau to reflect the decisions reached by the CSI team.
- *The approved recommendations are expected to increase flexibility in the program, and streamline the process. In addition, the changes will result in better data collection from projects which will be used to evaluate the program annually based on approved metrics.*



Brownfield Redevelopment turns an "eye-sore" into a productive, useful property.

### **Next Steps**

Legislation will be drafted and introduced this fall. During the summer, the CSI Brownfield Team will continue to meet to further discuss topics that were not covered in previous meetings and review/approve policy proposals for the program for the DEQ eligible activities.

The workgroup will also request draft legislation to redirect funds already authorized for brownfield redevelopment loans into grant funding available for new projects.

### **Part 213 Amendments effective May 1, 2012**

#### **Implementation of the Part 213 Amendments**

- Experienced staff members from each district have been designated to serve as resources for district staff and stakeholders to provide assistance in the understanding of the newly approved Part 213 amendments.
- The RD is also creating a Part 213 implementation stakeholder's workgroup, *whose purpose will be to provide an open forum for mutual discussions and cooperation on developing Part 213 guidance and policy.* The RD is targeting mid to late July for the first meeting of this workgroup.
- As required by amendments to Part 215, an Advisory Board will be named to develop recommendations for expenditure of the Refined Petroleum Fund, which was extended for three years to December 2015. Michigan Petroleum Association will be providing assistance in the creation and management of this Board.

#### **Additional Activity**

The following three reports describe progress made within the RD to support the reinvention process through teams established to assess the program as it is currently operated and evaluate the latest scientific developments in the field to ensure that public health is being protected by the most current and innovative means possible.

### **Ordinance Technical and Program Support Team**

- The policy and procedure document, which has served as the primary policy document, has been reviewed by all team members in anticipation of the need for possible changes. A meeting has been scheduled to facilitate this review and other TAPs Team assignments.
- *Expected improvements include changes that may result from the experience gained from the 17 years of program history and having a more broad-based decision making process.*

### **Next Steps**

Next steps include issuing a new updated policy and procedures document that takes into account stakeholder suggestions, making possible legislative changes to reflect concerns raised via the collaborative efforts and vetting of changes as they emerge.

*"It increased my faith in thoughtful people coming together to address complicated issues that will improve our state."*

*"I was not the most optimistic person in my group when we started, but could now be that person. This process worked extremely well for our group. I now appreciate much more the positions of our fellow regulators. The compromises made by our group collectively are awesome."*

### ***Incremental Sampling Technical and Program Support Team***

The Incremental Sampling (IS) TAPS Team continues to work on prioritized objectives common to all Remediation Division (RD) TAPS Teams as well as those unique to the IS TAPS Team.

- Site/Program Specific Services: The IS TAPS Team has recently provided technical and program expertise to RD Project Management for sites implementing IS including:
  - Mueller Brass (Belding)
  - Ash Field OLF
  - Harbor Heights Brownfield Assessment
- IS TAPS Team services have resulted in the achievement of site specific objectives at the sites identified above.
  - The IS Team is preparing a rough draft of practical IS Policy and Procedure for use by RD Staff and Stakeholders.
  - The IS TAPS Team has also reviewed IS training recently offered via webinar (i.e., the U.S. EPA Clu-In training and the Interstate Technology Regulatory Council (ITRC) training <http://www.itrcweb.org/>). The IS TAPS Team has attended these trainings with the objective of evaluating the content for recommendation for use by RD staff on IS sites and for the development and organization of RD guidance/training.



*DEQ staff perform incremental sampling activities for a brownfield assessment.*

#### ***Next Steps***

The IS TAPS team will prepare draft a draft policy and procedure document and request input from stakeholders.

### ***Groundwater Modeling Technical and Program Support Team***

The RD recognizes that groundwater modeling will have an impact on evaluating the fate and transport of contaminants that emanate from NAPL zones at Part 201 and Part 213 sites and will be critical in some GSI compliance demonstrations. Therefore, the RD has proactively formed the groundwater modeling TAPS team to provide assistance for this technical issue.

- The Groundwater Modeling Team is preparing a draft policy and procedures document for groundwater modeling assessments. Once the document is drafted, input from stakeholders will be requested before the document is finalized.

#### ***Next Steps***

Request stakeholder input as the document is completed with a specified comment period.

### ***Useful links***

- [Michigan's Cleanup and Redevelopment Collaborative Stakeholders Initiative \(3/23/12\)](#)
- What's New section of the Remediation Division's home page: [www.michigan.gov/deqrrd](http://www.michigan.gov/deqrrd)
- [Flyer on Certification Requirements for UST Owners and Operators \(6/1/2012\)](#)
- [Part 213](#)
- [GSI Bill: Senate Bill No. 1090](#)

Michigan's Part 201/Part 213  
Collaborative Stakeholders Initiative is supported by  
The Michigan Department of Environmental Quality

And the generous contributions of the following organizations and companies  
(Listed in alphabetical order)

American Electric Power, Lansing	Foster, Swift, Collins and Smith, PC, Lansing
Amway, Ada	General Motors, Detroit
API of Michigan, Lansing	Honigman Miller Schwartz and Cohn, LLP, Detroit
BASF, Wyandotte	Michigan Manufacturers Association, Lansing
Consumers Energy, Jackson	Michigan Petroleum Association, Lansing
Dow Chemical Company, Midland	Michigan Convenience Store Association, Lansing
Dow Corning, Midland	Miller Canfield, Lansing
DTE Energy, Detroit	Varnum Law, Grand Rapids
Fishbeck, Thompson, Carr and Huber, Lansing	Warner, Norcross and Judd, LLP, Grand Rapids
Ford Motor Company, Dearborn	