UPDATED 11/22/16

State Activities Conducted to Implement Drinking Water Regulations and Ensure Public Health Protection after April 2016 Program Review by U.S. EPA

1. Michigan Department of Environmental Quality (MDEQ) has drafted a Proposed Michigan Lead and Copper Rule (LCR) (no anticipated timeline), and has distributed for comments in September 2016; which includes:
   a. Reducing Lead Action Level from 0.015 mg/L to 0.010 mg/L;
   b. Establishing a Lead "Household Advisory Level" of 0.040 mg/L
   c. Enhancing public notification and public education procedures;
   d. Not allowing reduced LCR compliance monitoring; and,
   e. Requiring certain water systems to inventory their lead service lines.

   In September 2016, MDEQ is on record for recommending that the following be included in the proposed legislation:

   a. Require all community water supplies (CWS) and nontransient noncommunity water supplies (NTNCWS) to inventory their lead service lines (LSL) by given date.
   b. Require all CWSs and NTNCWS to remove their LSLs by given date.
   c. Prohibit partial LSL removal.
   d. Include a mechanism for water system/local unit of government to place a lien on property if LSL is not allowed to be removed.
   e. Incentivize replacement of lead-containing water fixtures.
2. Established the Flint Field Office, with 5 MDEQ staff based in Flint to provide field responses to residents; work with drinking water sampling efforts; and community outreach and education that provides door-to-door education on drinking water, filters, etc. An additional three engineering staff (0.5 FTE each) are working on the Karegnondi Water Authority (KWA) Team.
3. EPA Region 5 awarded a supplemental drinking water (PWSS) grant in July 2016 for enhanced lead and copper rule implementation in Michigan, that includes:
   a. Establishing a position for a LCR Compliance Specialist that will make compliance decisions; work with CWS to remain/return to compliance; position is posted.
   b. Develop and implement enhanced data tracking and analysis capabilities for LCR data to provide for a more thorough response to issues.

c. Develop and provide on-going training to all applicable staff on the implementation of the LCR and required response to lead and copper action levels exceedances at CWS/NTNCWSs and residents with lead/copper levels over the action level. Training on the LCR has already begun for drinking water staff, and that training includes lessons learned in Flint and a discussion of staff responsibilities to look beyond the minimum requirements of the Safe Drinking Water Act. Training includes 4 staff sent to Office of Research and Development-Cincinnati for Small System Workshop, 7 staff to EPA Region 5 for LCR training (2 engineering specialists-Mike Bolf, Bob London); 1 district supervisor-Bethel Skinker; 2 district engineers (Pat Brennan, Ernie Sarkipato); 2

noncommunity (NCWS) program staff (Connor; Nathan); 2 staff to National Sanitation Foundation training on Legionella/Building Premise Management.

4. Established a Peer Review Process which consists of the three engineering specialists and the Supervising District Engineer, in addition to the District Engineer, that reviews any water system's significant changes in source water or treatment; and decisions made regarding these changes in source water or treatment. (see attached State Policy)
5. Reduced the number of temporary disinvestment (regulatory requirements that do not have a public health impact), from 11 in FY 2016 to 3 in FY 2017.
6. MDEQ has revised its lead and copper sampling protocol to disallow pre-stagnation flushing. http://www.michigan.gov/documents/deq/Resident_Sampling_Instructions-12-11-2015_508290_7.pdf
7. Developed guidance on LCR identification of distribution system materials and establishing a sampling pool. http://www.michigan.gov/documents/deq/deq-odwma-water-cdwu-materials-inventory-sampling-pool_526510_7.pdf
8. Developed guidance on drinking water sampling for lead and copper at schools and daycares (MDEQ set lead action level at 0.005 mg/L). htt://www.michigan.gov/documents/deq/deq-samplingguidance-schoolsdayccares_522483_7.pdf
9. Developed documents and brochures on lead in the home for the public. http://www.michigan.gov/deq/0,4561,7-135-3313_3675_76638---,00.html
10. Modified following CWS policies:
    a. Site visit policy to ensure that written documentation for every visit and standard information is maintained in files.
    b. Revised language to clarify the proper method to determine lead and copper compliance.
    c. The LCR invalidation form has been revised that requires multiple levels of management signatures, and will serve to standardize invalidation of lead and copper samples.
11. Several mailings to CWSs have reiterated/emphasized the proper tiering criteria and discussion of goosenecks.
12. All active certified operator for Levels 1 – 4 have been scanned and are all electronic to date.
13. Recently executed Memorandum of Understanding (summer 2016) between MDEQ and Michigan Department of Health and Human Services (MDHHS) to ensure routine communication and data sharing regarding drinking water-related public health issues.
14. MDEQ has been implementing the Revised Total Coliform Rule (RTCR) as required, since April 2016. CWS program doing well in its transition from TCR to RTCR implementation. MDEQ NCWS program is working one-on-one with Local Health Departments (LHD) to help them with Excel tracking forms since no data management for RTCR is currently available

CWS and NCWS Staffing

1. FY 2017 Drinking Water State Revolving Fund set-aside workplans requested 47 FTEs, an increase of 17 FTEs from FY 2016.
2. Governor approved to hire 20 additional FTEs; 10 for MDEQ's Flint response activities, and an additional 10 for MDEQ's Lansing Central Office for CWS and NCWS activities.
3. As recommended by the Flint Water Advisory Task Force, MDEQ has new leadership with a new Director, a new Deputy Director, and a new Chief of the Office of Drinking Water and Municipal Assistance hired in August 2016.
4. Engineering Unit to be created to provide engineering expertise, consultation and training to drinking water engineering staff in all district offices and to water supplies. Engineering Manager position currently being created
5. Three engineering specialists (part of Engineering Unit) have been hired for the Lansing Central Office (2 out 3 of these positions are new):
   a. Treatment specialist
   b. Distribution system specialist
   c. Corrosion Control specialist
6. Three additional engineering specialists positions (part of Engineering Unit) have been cleared by Human Resources and these positions are posted (all 3 positions are new); these positions will oversee all surface water treatment plants to improve the consistency of sanitary surveys and application of the suite of surface water treatment rule; interviews in December 2016.
7. In 2016, MDEQ identified one FTE to oversee all LCR compliance determinations for all CWSs, to ensure consistency across the State. This position is operational now, and will eventually transition to the LCR Compliance Specialist and to the FTE identified in number 8 below, the LCR Environmental Quality Analyst (EQA).
8. A LCR EQA will work with the LCR Compliance Specialist to do routine LCR compliance work; position being developed.
9. School lead sampling position has been established and operational since summer 2016.
10. One EQA position to conduct RTCR compliance activities has been established, interviews have been completed and hiring to be completed in December 2016.
11. One EQA position located in Lansing Central Office, will provide support to all District Analysts; assist in training all new District analysts; to fill-in when a district analyst position is vacant, and to ensure consistency between all data processing and compliance determinations for all rules throughout the State. Interviews have been completed and hiring to be completed in December 2016.
12. In response to the Flint Water Crisis, and recognized need for certified operators, MDEQ has developed an Assistant Unit Chief position for Technical Support that will be focused on the Operator Certification program, which is anticipated to be posted in December 2016.
13. In the Noncommunity Water System Program, 2 additional staff have been hired; 1 FTE to provide data support to WaterTrack and federal reporting, and 1 FTE to provide additional oversight of LHDs and evaluate LHDs' work.
14. Since the State has not finalized a proposed State LCR, MDEQ is unable to modify its LCR implementation policy, such as development of a strategy as to how the State will

implement the Water Quality Parameter (WQP) requirements. However, the Peer Review Team made up of the engineering specialists for water treatment, corrosion control and distribution systems are currently looking at all systems that are changing sources or proposing treatment modifications, and evaluating optimization of water treatment plants.

15. MDEQ NCWS program is in the process of hiring 2 temporary clerical staff to assist LHDs with entry of RTCR sampling data into WaterTrack.

Noncommunity Water System (NCWS) Program

1. MDEQ requested a total of $50,000 from FY 2016 and FY 2017 Public Water System Supervision (PWSS) Grants to sign-on to EPA Headquarters' SAIC grant to migrate data from WaterTrack to SDWIS-State. Communication between SAIC and MDEQ is ongoing. The 2014 server environment has been installed at MDEQ, and testing is currently being conducted. SAIC should begin building the SDWIS-State NCWS data management system in December 2016.
2. The Noncommunity and Public Water Supplies Unit was split into 2 units; the Noncommunity Unit and the Source Water Unit. This enables the Noncommunity Program Unit Chief to devote 100% of time to implementing drinking water regulations at NCWSs.
3. Implementation procedures modified for LHDs implementation of LCR in memo from Jim Sygo, MDEQ Deputy Director, dated May 6, 2016, which includes:
   a. Immediately discontinue use of narrow-mouth bottles for lead and copper sampling, use only wide-mouth bottles, since MDEQ lab will no longer analyze lead and copper samples submitted in narrow-mouth bottles.
   b. Review and implement new lead and copper sampling instructions that do not include pre-stagnation flush. Collection flow rate shall be similar to rate used under normal use.
   c. LHDs will review each system's designated routine monitoring sample sites, sample frequency and number of samples required.
   d. Keep appropriate documentation regarding sample site changes, including additions or deletions from sampling pool.
   e. Provide consumers with all lead and copper monitoring results as soon as possible after received by State.
   f. Individual taps that exceed 0.015 mg/L will be posted "Do Not Drink" and will follow up with a plumbing assessment. Bottled water may be required by LHD.
   g. MDEQ will perform joint technical site visits with systems where a lead or copper action level is exceeded. The visit may include a plumbing assessment of the entire facility.
   h. Examine potential effects of water chemistry (such as WQP results) when reviewing permit applications for a change in source or addition/change of treatment. Noncommunity program is now requiring the collection of WQPs, as required in the LCR.

i. Consult/perform plan review and permitting when a facility connected to CWS is interested in performing secondary treatment in its building for public health purposes.
j. MDEQ will provide MDHHS all lead monitoring results above 0.015 mg/L and will inform MDHHS of action level exceedances.

4. The NCWS program has revised and improved the public education language that mirrors the CWS public education language. Instructions to water systems on Lead Consumer Notice have been improved.
5. MDEQ NCWS staff have improved procedures for review of lead sample data, which provides additional oversight to LHD review of lead sample data.
6. MDEQ NCWS program providing direct guidance to NTNCWSs that exceed the lead action level. Recommending systems conduct investigative sampling of all fixtures using a 250 ml wide-mouth bottle.
7. MDEQ NCWS program requiring any fixture over 0.015 mg/L must take the fixture out of service or replace it. Any fixture between 0.010 mg/L and 0.015 mg/L, the State recommends the fixture be replaced. Schools and daycares that have a lead sample between 0.005 mg/L and 0.015 mg/L are recommended to replace the fixture or take it out of service.
8. MDEQ NCWS program held an RTCR update meeting with all LHD Directors in September 2016, to discuss how noncompliance can be decreased.
9. MDEQ NCWS program continues to hold 2-day LHD training for all LHDs each spring, with EPA Region 5 attending and presenting on priority issues.
10. MDEQ NCWS program is also exploring purchase of 2 or more automated phone messaging systems that would automatically send phone messages to owners and operators of NCWSs, reminding them to collect their samples.