

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

- R-1: Implement a proactive, comprehensive cultural change program within Michigan Department of Environmental Quality (MDEQ), specifically its Office of Drinking Water and Municipal Assistance (ODWMA), to refocus the department on its primary mission to protect human health and the environment. MDEQ should aspire to become a national leader through a proactive program designed to detect and address contaminants in public water supplies in a timely manner.
- R-2: Establish an apprenticeship/certification program for MDEQ ODWMA employees that requires direct, hands-on experience with public water system operations. MDEQ ODWMA employees responsible for water system regulation and Safe Drinking Water Act (SDWA) enforcement should be, or have access to, certified operators and subject matter experts (including, for example, those at EPA).
 - R-3: Strengthen SDWA enforcement, most notably for the Lead and Copper Rule (LCR). The state has the ability to strengthen its own enforcement of the SDWA and not wait for action to occur at the federal level.
 - R-4: Participate in the Flint Water Inter-Agency Coordinating Committee's (FWICC's) work team established to oversee conversion from DWSD-supplied to KWA-delivered water. MDEQ should draw from that work to revise its policies and procedures for approval of water treatment and distribution system operating regimens, particularly when source water changes are contemplated.
- R-5: Participate in EPA's ongoing review and revision of the LCR, conveying lessons learned from the Flint water crisis.

MICHIGAN DEPARTMENT OF HEALTH AND HUMAN SERVICES

- R-6: Establish policies and procedures at MDEQ and the Michigan Department of Health and Human Services (MDHHS) to ensure input by health experts and scientists when permit decisions may have a direct impact on human health.
- R-7: Establish and maintain a Flint Toxic Exposure Registry to include all children and adults residing in Flint from April 2014 to present.
- R-8: Re-establish the Michigan Childhood Lead Poisoning Prevention and Control Commission.
- R-9: Ensure that MDHHS is transparent and timely in reporting and analysis of aggregate data regarding children's blood lead levels. MDHHS data regarding lead levels shall be provided to individuals and organizations, based on their expertise, upon request and in cases when the interpretation of data by MDHHS is questioned.
- R-10: Establish a more aggressive approach to timely clinical and public health follow-up for all children known to have elevated blood lead levels, statewide. MDHHS should expand its local efforts and partnerships to accomplish this goal. Whenever possible, routine screening for lead and appropriate follow-up should occur in children's primary care medical homes.
- R-11: Strive to be a national leader in monitoring and responding to exposure of children to lead by converting the Childhood Lead Poisoning Prevention Program (CLPPP) from passive collection of test results into an active surveillance and outreach program.
- R-12: Improve screening rates for lead among young children through partnerships with county health departments, health insurers, hospitals, and healthcare professionals.
- R-13: Take responsibility for coordinating with Genesee County Healh Department (GCHD) and the Center for Disease Control (CDC) to protect Michigan residents from further outbreaks of Legionellosis.
- R-14: Assume that outbreaks of Legionellosis cases may be related to changes in water source and communicate the potential risk to the public.
- (c) COMPLETED
- IN-PROCESS ITEMS DETAILS MAY VARY FROM RECOMMENDATION

RECOMMENDATIONS CONTINUED

MICHIGAN GOVERNOR'S OFFICE

- R-15: Expand information flow to the Governor so that information providing the foundation for key decisions comes from more than one trusted source—and is verified.
- R-16: Create a culture in state government that is not defensive about concerns and evidence that contradicts official positions, but rather is receptive and open-minded toward that information. View informed opinions—even if critical of state government—as an opportunity for re-assessing state positions, rather than as a threat.
- R-17: Ensure that communications from all state agencies are respectful, even in the face of criticism, and sensitive to the concerns of diverse populations.
- R-18: The Governor must assume the leadership of, and hold state departments accountable for, long-term implementation of the recommendations in this report, including but not limited to the need for cultural changes across multiple state agencies, the need for health mitigation and lead service line replacement in Flint, and the need for a funding strategy to address replacement of lead service lines statewide.
- R-19: Review budget requests for MDEQ to ensure adequate funding is provided to the ODWMA. EPA audit and interviews indicate that Michigan's drinking water program might have one of the lowest levels of financial support within EPA Region V while having one of the largest, if not the largest, number of community water systems to regulate.

STATE-APPOINTED EMERGENCY MANAGERS

- R-20: Review Michigan's Emergency Manager Law (PA 436) and its implementation, and identify measures to compensate for the loss of the checks and balances that are provided by representative government.
- R-21: Consider alternatives to the current emergency manager approach—for example, a structured way to engage locally elected officials on key decisions; an Ombudsman function in state government to ensure that local concerns are a factor in decisions made by the emergency manager; and/or a means of appealing emergency manager decisions to another body.
- R-22: Ensure proper support and expertise for emergency managers to effectively manage the many governmental functions of a city. Decisions on matters potentially affecting public health and safety, for example, should be informed by subject matter experts identified and/or provided by the state.

- **UNDER REVIEW**
- C COMPLETED
- IN-PROCESS ITEMS DETAILS MAY VARY FROM RECOMMENDATION SEPTEMBER 28, 2016
- (R) REFERRED

RECOMMENDATIONS CONTINUED

CITY OF FLINT

- R-23: Establish and fund a team of subject matter experts in water system operations (treatment and distribution system management) to support and train water system personnel, guide safe system operation under current conditions, and prepare for successful conversion to KWA.
- R-24: Implement a programmatic approach to Flint Water Treatment Plant (WTP) and distribution system operations, maintenance, asset management, water quality, capital improvements and public engagement (including risk communication) to ensure that the disparate ongoing efforts to address Flint water system infrastructure needs are coordinated, fully documented, and structured to sustain high-quality potable water service over the long term.
- R-25: Implement a robust public engagement and involvement program in conjunction with the anticipated conversion to KWA-delivered water and provide for regular reporting to the Flint Water Inter-Agency Coordinating Committee (FWICC).

GENESEE COUNTY HEALTH DEPARTMENT

- R-26: Improve follow-up on public health concerns between Genesee County Health Department (GCHD), MDHHS and the city of Flint now and in the future, to effect timely, comprehensive, and coordinated activity and ensure the best health outcomes for children and adults affected.
- R-27: Presume that the risk of Legionella may remain elevated in the Flint water distribution system and must take appropriate steps with public and private partners to monitor and mitigate that risk as concerns about water quality continue in the city of Flint.
- R-28: Coordinate with state officials (MDHHS) and with local healthcare professionals and healthcare institutions in Genesee County and the city of Flint to mitigate the risk of Legionellosis in 2016 and beyond.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA)

- R-29: Exercise more vigor, and act more promptly, in addressing compliance violations that endanger public health.
- R-30: In collaboration with the NDWAC and other interested partners, clarify and strengthen the LCR through increased specificity and constraints, particularly requirements related to LCR sampling pools, sample draw protocols, and LSL replacements—and, more generally, strengthen enforcement protocols with agencies delegated primary.
- R-31: Engage Michigan representatives in ongoing LCR revisions and development of enforcement protocols at EPA and MDEQ.

ENVIRONMENTAL JUSTICE

- R-32: Issue an Executive Order mandating guidance and training on Environmental Justice across all state agencies in Michigan, highlighting the Flint water crisis as an example of environmental injustice. The state should reinvigorate and update implementation of an Environmental Justice Plan for the State of Michigan.
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RECOMMENDATIONS CONTINUED

FLINT RECOVERY AND REMEDIATION

- R-33: Sustainably fund the Flint Water Inter-Agency Coordinating Committee (FWICC) to provide adequate resources to engage supporting sub-committees for delivery of public health and water system services.
- R-34: Clarify and effectively communicate the roles, work and expected outcomes of the city of Flint, FWICC and Mission Flint.
- R-35: Through collaboration among MDHHS, GCHD, local healthcare professionals, and health insurance plans, ensure 100 percent clinical and environmental follow-up with Flint families whose children have been found to have elevated blood lead levels since April 2014, and work together to ensure that follow-up occurs in children's medical homes.
- R-36: Offer all children listed in the recommended Flint Toxic Exposure Registry timely access to age-appropriate screening and clinically indicated follow-up for developmental and behavioral concerns by licensed healthcare professionals, as well as access to early childhood education and nutrition services.
- R-37: Consider establishing a dedicated subsidiary fund in the Michigan Health Endowment Fund to facilitate funding of health-related services for Flint.
- R-38: Establish a comprehensive Flint public health program, coordinated with county and state-level public health initiatives, that can serve as a model for population health across the state. This program should provide assessment, interventions, and support not only regarding the health effects of water contamination but also more broadly regarding the health effects of chronic economic hardship and other social determinants of poor health.

STATE-WIDE RECOMMENDATIONS

- R-39: Conduct an investigative review of the development and approval of the KWA and of the City of Flint's commitments to KWA water purchases.
- R-40: Institute a school and daycare water quality testing program (which could serve as a model for the U.S.), administered collaboratively by MDEQ and MDHHS, that includes appropriate sampling and testing for lead contamination for all schools and childcare centers in the state and effective reporting of test results.
- R-41: Develop a model lead service line replacement program and funding mechanisms for financing work on private property.
- R-42: Revise and enhance information distributed by public water systems on the implications of widespread use of lead in public and private plumbing.
- R-43: Use the occasion of the Flint water crisis to prompt local and state re-investment in critical water infrastructure, while providing mechanisms to advance affordability and universal access to water services.
- R-44: Prioritize health matters across all state agencies with establishment of a new Cabinet level post focused on public health.
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