

**Summary of Department of Environmental Quality (DEQ) Actions  
In Response to the  
EPA Emergency Administrative Order  
Updated: 06/13/2016**

**EXECUTIVE SUMMARY:**

The EPA Emergency Administrative Order contains 15 overall items to be addressed by MDEQ. The status of each of the 15 items has been categorized into the following categories: ongoing, completed, and completed and ongoing. The current status of the items is as follows: four (4) items are ongoing; three (3) items have been completed; and eight (8) items have been completed and are ongoing. To date, all deadlines imposed in the EPA Order have been met and work continues on several items that require an ongoing effort. It is anticipated that the next update to this summary will be provided on Monday, June 20, 2016.

**DETAILED INFORMATION:**

EPA Order Due Date: 01/21/2016

- **Item 55: “Shall cooperate with EPA for conducting sampling and other diagnostic activities”**
  - The Administration Group was assigned this task. Communication has been initiated by the group.
    - *This is an ongoing process.*
    - *A data discussion panel has been scheduled for April 4th. The purpose of the panel is to: organize and discuss data results collected to date, consistent with data privacy concerns; hear individual scientific interpretations of the data; and assess the overall state of system recovery.*
    - *Coordination meetings are held weekly, every Wednesday and every Friday, with MDEQ, EPA and City representatives, to address ongoing aspects of the Order and on-the-ground efforts.*
  
- **Item 60: “Shall not switch water supplies until plans have been submitted and approved”**
  - The Public Health Group was assigned to this task and they have received an agreement to comply from the City of Flint.
    - *This task has been completed.*
    - *On May 26, 2016, the DEQ responded to a letter from Mark Pollins, EPA, dated May 11, 2016, regarding transitioning to a new water source. Both letters were posted on the Flint website on 5/31/2016 under Paragraph 60.*

EPA Order Due Date: 01/22/2016

- **Item 50: “Intent to Comply Letter”**
  - The Administrative Group was assigned this task.

- *This task was completed on 01/22/2016. Letters of intent were posted to the Flint Water website on 02/15/16 from both MDEQ and the City of Flint.*
- *Two letters were posted to the Flint Water website on 4/20/2016: 1) Letter from EPA Mark Pollins to MDEQ Director Creagh and Flint Mayor Weaver dated March 29, 2016, and 2) letter from DEQ Director Creagh to Mark Pollins dated April 19, 2016 – response to March 29, 2016 letter.*

EPA Order Due Date: 01/26/2016

- **Item 51: “Public Website posting all reports, plans, weekly status reports on progress, except Personally Identifying Information (PII)”**
  - The Administrative Group was assigned this task.
    - *This is an ongoing task. A tab added to the Flint Water website includes all relative documents posted to date; additional documents continue to be posted as they are developed.*
    - Recurring reports are placed under an “Archived Documents” link to better organize the documents.

EPA Order Due Date: 01/28/2016

- **Item 63: “Shall engage a panel of experts to advise and make public recommendations to the city on steps needed to mitigate the imminent and substantial endangerment to the health of persons and general operation of the city’s PWS to comply with SDWA & NPDWRs”**
  - The Administrative Group has been assigned to this task. A panel of experts met in Flint on 01/27/2016 at 3:00 p.m.
  - The Flint Water Interagency Coordinating Committee (FWICC) was created by a 01/11/2016 Executive Order by Governor Snyder. That order and a list of committee members were posted to the Flint Water website on 02/12/16.
    - *This is an ongoing task. The FWICC is meeting weekly and has engaged in a subcommittee structure, which has also been posted to the website.*
    - *Sylvester Jones is now the City Administrator, replacing Natasha Henderson, and has officially been appointed to the FWICC.*

**EPA Identified Deficiency #9: Respondents have not yet provided a list of the “Independent Advisory Panel” membership (Paragraph 63).**

- Assigned to Administration Group.
  - *An updated list of FWICC and subcommittee members was posted to the Flint Water website 02/26/16 and updated on 03/18/16 and 4/14/2016.*

EPA Order Due Date: 01/31/2016

- **Item 52: “Is progress being made with corrosion control in the City? Respond to EPA Flint Task Force”**

- The Public Health Group has been assigned to this task in coordination with the City of Flint.
- EPA agreed on the dosing level for orthophosphate (01/27/2016).
  - *This task has been completed.*
- Conduct weekly status calls with Flint Water Treatment Plant.
  - ***This task is completed and is ongoing. Conference calls between the DEQ Public Health Group and the City of Flint were originally scheduled each Friday at 1:30 p.m. These meetings have been moved to Thursdays to ensure timely posting of each week’s report.***
- Review Monthly Operational Reports to ensure corrosion control treatment is appropriately maintained.
  - *Task is completed and ongoing. Monthly Operation Reports have been posted, including consolidated reports for the years 2013-15, as well as one-month reports for December 2015, January 2016, and February 2016. Weekly updates have been posted to the Flint Water website since 02/07/16.*
- *Supplemental documentation explaining the MDEQ response to this item was posted to the Flint Water website on 02/12/16.*

**EPA Identified Deficiency #1: Respondents have not responded in writing to the EPA Flint Task Force’s requests and recommendations (Paragraph 52).**

- Assigned to Public Health Group in coordination with the City of Flint.
  - *“Recommendations from Flint’s Safe Drinking Water Task Force” spreadsheet provided by EPA has been populated to include assignments, tasks and task status information in the “Role of MDEQ” field. This spreadsheet was uploaded to the Flint Water website on 02/29/16.*
  - *The City of Flint populated their “Role of City of Flint” component on the spreadsheet and an updated version was posted to Flint Water website on 03/15/16.*
- **Item 53 (A): “Water quality parameter measurements in distribution system”**
  - The Public Health Group has been assigned to this task.
  - Ensure City collects and provides water quality parameter data as required and that water quality parameter trends/concerns are discussed during the weekly status call.
    - *Task is completed and ongoing. Monthly Operation Reports have been posted to the web, as noted for item 52 (above). Also, Enhanced Water Quality Monitoring Reports have been posted weekly since 01/24/16.*
    - *On May 31, 2016, the City submitted a letter to the DEQ clarifying that the pH data submitted May 18, 2016 was in error. This letter was posted to the Flint website on 5/31/2016 under Archived DEQ Reports to EPA, with the weekly enhanced monitoring data from May 13-19<sup>th</sup>.*
- **Item 53 (B): “All lead in water testing results for the City since January 2013, including those not used for LCR compliance”**

- The Public Health Group has been assigned to this task.
  - *Task is completed and ongoing.*
- Provide any lead results in MDEQ files for monitoring since January 2013 (target 01/29/2016) to the Administrative Group for vetting; results will be posted on the website.
  - *Task is completed and ongoing. Supplemental information explaining past monitoring efforts was posted to the Flint Water website on 02/12/16.*
- Ensure ongoing monitoring results continue to be provided and posted to the website.
  - *This task is ongoing. A spreadsheet of updated test results is being posted daily to the Flint Water website.*

**EPA Identified Deficiency #2: Respondents have not provided all lead in water testing results for the City since January 2013 (Paragraph 53(b)).**

- *This item was been addressed and meets EPA’s requirements. Additional and current information from both the City and the MDEQ has been provided to the Task Force spreadsheet and was posted to the [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater) Web site on April 6, 2016.*
- **Item 53 (C): “Identification of areas by zip code in the City with elevated blood lead levels”**
  - The Administrative Group has been assigned to coordinate with DHHS.
    - *Ongoing process. An explanation of results for blood lead level testing has been posted to the Flint Water website to supplement information originally posted.*
- **Item 54 (A): “Existing inventory of homes with lead service lines in Excel or similar format”**
  - The Administration Group and Field Group and MDEQ-IMT GIS are assigned to the task of compiling this data.
    - *This task is complete and ongoing.*
    - *A supplemental document has been posted to the Flint Water website to further explain the status of lead line identification in the City.*
    - *The primary response and current status are supplied in the context of the letter from Director Keith Creagh to the EPA dated April 04/04/16.*

**EPA Identified Deficiency #3: The existing inventory of homes with lead service lines submission is not adequate (Paragraph 54(a)).**

- Assigned to Administration Group and MDEQ-IMT GIS.
  - *Updated information on this task was posted to the Flint Water website on 02/25/2016. Work is continuing and reports on progress will be uploaded to the Flint Water website.*
  - *Extensive progress has been made on the development of an all-inclusive master database that contains the lead service line inventory.*
  - *A file was uploaded to the FTP site on 03/11/15 that provided additional parcel information with known lead service lines to date.*
  - *A file was uploaded to the FTP site on 3/17/2016 that provided additional parcel information with known lead service lines to date.*

- *Correspondence from MDEQ Director Keith Creagh to Mark Pollins, EPA Director of Water Enforcement Division, dated April 5, 2016, which outlines efforts and activities to date for providing an existing inventory for LSLs, was posted to the [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater) Web site on April 15, 2016.*
    - *The City of Flint issued an RFP on May 27, 2016 to begin replacing lead lines in the City. A mandatory meeting with all interested bidders was held June 8, 2016 regarding the RFP. The DEQ shared comments with the City towards affecting a potential addendum.*
    - *During the week of June 6, the DEQ drafted a work plan for the \$25 million included in House Bill 5294 (which was passed by both the House and Senate on June 8) for continuing the service line project in the City. The draft will be the basis for grant contract negotiations with the City.*
- **Item 54 (B): “Addresses of homes that have had water service interruptions or street disturbances (e.g., water main breaks, etc.) within last year”**
  - This task was assigned to the MDEQ-IMT GIS Group and Public Health Group in coordination with the City of Flint.
  - Coordination has occurred.
    - *This task has been completed.*
    - *Service Interruptions for water main breaks, hard surface, street resurfacing, 50/50 sidewalk replacement, and sidewalks completed were posted to the Flint Water website on 01/31/16.*
- **Item 54 (C): “Addresses of currently unoccupied homes”**
  - This task has been assigned to the MDEQ-IMT GIS and Public Health Group. MDEQ is working with the City of Flint Department of Public Works to acquire the data and map these locations. The information for this is not for public dissemination due to safety reasons.
    - *This is an ongoing task. A list of unoccupied homes had been posted to the Flint Water website on 01/31/2016, with personal information removed.*
- **Item 69 (A): “Any agent, consultant or contractor used for carrying out this order shall also abide by record retention restrictions under this order”**
  - This task has been assigned to the Administrative Group.
  - All agents or contractors will be required to comply with the Retention Schedule of the EPA Order.
    - *This task is ongoing.*
  - Identify record retention elements and provide direction to all personnel, agents, or contractors who are, or may become, involved with the Flint water incident. Also prepare a Documentation Unit Leader task list and identify resource(s) needed to fill the position. This was assigned to the Assistant Attorney General.
    - *This task has been completed.*
- **Item 69 (B): “Any agent, consultant or contractor used for carrying out this order shall also abide by record retention restrictions under this order”**
  - This task has been assigned to the Legal Team and the Administrative Group.

- A letter was sent to the City of Flint from MDEQ on 01/31/2016.
  - *This task is completed.*

EPA Order Due Date: 02/04/2016

- **Item 59 (A): “City shall submit a plan and schedule to MDEQ for designated optimal corrosion control and water quality parameters and water monitoring plans”**
  - The Administration Group and Public Health Group have been assigned to this task in coordination with the City of Flint.
    - A weekly conference call was originally scheduled for Fridays at 1:30 p.m. to review and discuss water quality monitoring results for the past week. Upon call completion, data is reviewed and submitted for posting on the website. *These meetings have been moved to Thursdays to ensure timely posting of each week’s report.*
    - *This task is completed and ongoing. A Plan for Optimization of Corrosion Control as well as a 10/30/2015 letter from MDEQ to the City of Flint were posted to the Flint Water website on 02/13/16 to supplement information originally posted to the web in regard to this item.*

**EPA Identified Deficiency #5: Respondents have not provided plans and schedules to ensure the treatment plant is consistently and reliably meeting plant performance criteria (Paragraph 59(a)).**

- Assigned to Public Health Group in coordination with the City of Flint.
  - *Completion of this task is ongoing.*
  - *EPA concerns were further addressed in MDEQ Director’s 03/08/16 letter. Current draft engineering documentation was provided to the EPA on an FTP site on 02/29/16.*
  - *Drafted a Request for Proposals (RFP) for Flint to obtain expertise and/or services necessary to develop and implement a Distribution System Water Quality Optimization Plan; submitted this draft RFP to EPA for comments. The draft RFP was posted to the FTP site on 03/13/16.*
  - *The RFP was updated based upon feedback from the EPA and provided to the City of Flint on 03/16/16 to be publicly advertised by 03/23/16.*
  - *Advertisements for RFP’s, which have been extended through the end of April to accommodate additional proposals, can be found on both the City and the State of Michigan’s websites at: Buy4Michigan, <https://www.buy4michigan.com/bso/external/publicBids.sdo>, BID #313116B0007748 and at City of Flint <https://www.cityofflint.com/finance/purchasing/bids-2/>, Prop #16-540.*
  - *In order to allow more time for professional consulting firms to prepare their proposals, the due date for submissions was extended to May 5, 2016, a decision that was agreed upon by EPA, the City, and MDEQ staff. The City received four bids. A joint evaluation committee consisting of representation from EPA, the City, and MDEQ will be assembled*

*to review proposals and the goal is to make a recommendation for awarding a contract the week of May 23, 2016, which will need final approval by the City Council.*

- *In addition, in collaboration with the City, the EPA, and additional technical experts, the MDEQ is drafting an RFP that would serve as a master plan focusing on the treatment plant for the future raw water source from the Karegnondi Water Authority (KWA) and backup water. While existing or pending consulting services are in place for the distribution system and the delivery of KWA, these new services would focus on the assessment and evaluation of the existing infrastructure and systems within the plant, as well as current standard operating procedures in order to make recommendations for any critical or future treatment or monitoring upgrades necessary to maximize water quality and overall plant operations. While a current schedule for finalizing the scope of work language, advertising, and awarding a contract is pending, those processes will be informed by an independent analysis of the plant, scheduled for April 25, 2016, that the EPA has arranged to assist in expediting this pending RFP.*
- *On 5/23, 2016, the DEQ posted information about the process used to select participants for the Sentinel Sampling Program under DEQ Reports to EPA, EPA Order Requirements.*
- *Scoring of the proposals will occur the week of May 31, 2016.*

- **Item 59 (B): “City shall submit a sampling plan for daily monitoring to the MDEQ in a weekly report”**

- The Public Health Group has been assigned to this task.
  - A weekly conference call was originally scheduled for Fridays at 1:30 p.m. to review and discuss water quality monitoring results for the past week. Data will be reviewed and submitted for posting on the website. *These meetings have been moved to Thursdays to ensure timely posting of each week’s report.*
  - *This task is completed and ongoing.*
  - *This has been addressed based on regular posting of Monthly Operation Reports and discussions with EPA staff on 02/23/16.*

**EPA Identified Deficiency #6: Respondents have not submitted a plan for daily monitoring of water quality parameters in the distribution system (Paragraph 59(b)).**

- Assigned to Public Health Group in coordination with the City of Flint.
  - *This item has been addressed and meets EPA’s requirements.*

- **Item 59 (C): “City shall submit to the MDEQ an operations plan for the corrosion control equipment submitted in weekly format including monitoring, calibration, verification and daily monitoring of finished water corrosion control parameters”**

- The Administration Group and Public Health Group have been assigned to this task.
- Weekly updates are being posted to the Flint Water website. MDEQ will work with the City of Flint and consultants, as appropriate, to work on a comprehensive plan.
  - *This task is completed and ongoing.*

- On 5/23/2016, the DEQ posted daily worksheets for the phosphoric acid feed system on submitted by the City to document their oversight of the corrosion control treatment.

**EPA Identified Deficiency #7: Respondents have submitted an inadequate operations plan for the corrosion control equipment and daily monitoring of finished water corrosion control parameters (Paragraph 59(c)).**

- Assigned to Public Health Group in coordination with the City of Flint.
  - Completion of this task is ongoing.
  - *The primary response and current status are supplied in the context of the letter from Director Keith Creagh to the EPA dated 03/08/16 which can be found at [www.epa.gov/flint](http://www.epa.gov/flint) under SDWA Emergency Order, MI DEQ Response.*
  - *Based upon an additional request from the EPA, beginning April 15, 2016, the weekly reports are being posted to the [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater) Web site in Excel.*

EPA Order Due Date: 02/05/2016

- **Item 61: “City must demonstrate and MDEQ must ensure the city has necessary capable and qualified personnel to perform duties in PWS”**
  - The Administration Group and Public Health Group has been assigned to this task in coordination with the City of Flint.
  - City of Flint has submitted a list of employees and their drinking water certifications to MDEQ. Review of this information by MDEQ has been completed.
    - *This task is completed and ongoing. Explanatory information, including a water treatment plant org chart and employee position descriptions, has been posted to the Flint Water website to supplement information originally posted to the web.*
    - *An F-1 certified Water Plant Supervisor began work on March 28, 2016; interviews were conducted on April 12, 2016, for the vacant Public Works Director; and up to 16 additional positions associated with water plant, lab analysis, and distribution system support are pending interview and hiring processes. As the City continues to make staffing decisions that augment their organizational structure, the MDEQ will post materials to the [www.michigan.gov/flintwater](http://www.michigan.gov/flintwater) Web site once they are received from the City. The last information that was provided was posted on February 12, 2016.*
    - *The City has made an offer to the successful applicant of the Public Works Director position. In addition, the City has four operator trainees who will start May 9. They also closed on 10 distribution system staff positions and have a number of lab technician applicants as well.*

**EPA Identified Deficiency #8: Respondents submitted a list of staff, but have not adequately demonstrated the City has the necessary, capable and qualified personnel required to perform the duties and obligations required to ensure the public water system complies with the SDWA and the National Primary Drinking Water Regulations (Paragraph 61).**



- Assigned to Public Health Group in coordination with the City of Flint.
  - Completion of this task is ongoing.
  - *Additional information titled “Supplemental Information Plant and Water Department Employees” and “Treatment Plant and Water Department Org Chart Job Descriptions” was posted to the Flint Water website 02/12/16. Information describing the roles and responsibilities of professional services consulting firms is pending input and additional information from the City. This content will be posted when made available.*
  - *The City will be conducting interviews of six people on April 12 for the Public Works Director position. A water plant supervisor was recently hired and will start March 28.*

EPA Order Due Date: 02/20/2016

- **Item 62: “City will document and share steps to develop and implement a distribution system water quality optimization plan to MDEQ”**
  - The Public Health Group has been assigned to this in coordination with the City of Flint.
    - *This task is completed and is ongoing. A Distribution System Optimization Plan has been developed and provided to MDEQ by the City of Flint. This plan has been reviewed by MDEQ and a response letter has been provided to the City of Flint. As noted in the response letter, MDEQ has identified additional information that needs to be included in the plan. Work on this will continue.*
  - MDEQ contacted national drinking water organizations currently working on the Distribution System Optimization Plan framework and received information regarding distribution system optimization from the following:
    - American Water Works Association
    - Boston Water & Sewer Commission
    - Process Applications, Inc.
    - Wrightsville Borough Municipal Authority (Pennsylvania)
    - Association of State Drinking Water Administrators
  - *City of Flint and MDEQ have agreed to engage with the EPA’s Area-Wide Optimization Program (AWOP) for technical assistance.*
  - With the assistance of AWOP and other community volunteers, MDEQ drafted an RFP for the city of Flint to advertise for a consultant to complete a Distribution System Optimization Plan. The RFP has been reviewed by EPA and is now in the hands of the city to initiate the process.
  - *See also the comments under 59A on the top of page 6.*

EPA Order Due Date: Monthly

- **Item 57: “Shall maintain chlorine residual in the distribution system in accordance to SDW and National Primary Drinking Water Regulations (NPDWR)”**
  - The Public Health Group has been assigned to this task in coordination with the City of Flint.

- *This has been completed and is ongoing. Additional information on chlorine residual was posted to the Flint Water website on 02/12/16 to supplement information originally posted in regard to this item.*
- Regulatory requirements are already in place for residual chlorine. The City is required to monitor chlorine regularly and report on Monthly Operating Reports.
  - *Monthly Operational Reports, which include chlorine residual information, continue to be posted to the Flint Water website, as described under item number 52 above.*
- Review Chlorine residual levels in weekly status calls.
  - *Conference calls between the DEQ Public Health Group and the City of Flint are scheduled for each Friday at 1:30 p.m. Conference call notes are posted weekly on the Flint Water website.*
  - *DEQ mailed a letter to the City of Flint on May 27, 2016 reiterating the importance of installing chemical feed equipment and conducting additional flushing. The City responded to this letter on May 29, 2016. Both letters were posted on 5/31/2016 to the Flint website under Paragraph 57.*
  - *DEQ mailed a letter to the City of Flint on May 25, 2016, recommending daily monitoring of treated water for certain parameters. This letter was posted online the week of June 6, 2016.*

**EPA Identified Deficiency #4: Respondents have not adequately demonstrated (e.g., using daily sampling information) that they are maintaining chlorine residual in the distribution system (Paragraph 57) or continuing to add corrosion inhibitors at levels sufficient to re-optimize corrosion control in the distribution system (Paragraph 58).**

- This has been assigned to Public Health Group in coordination with the City of Flint.
  - *Reports are posted to the Flint Water website on a weekly basis.*
  - *The primary response and current status are supplied in the context of the letter from Director Keith Creagh to the EPA dated 03/08/16 which can be found at [www.epa.gov/flint](http://www.epa.gov/flint) under SDWA Emergency Order, MI DEQ Response.*
- *The DEQ mailed a letter to the City of Flint on June 1, 2016, summarizing the June 1, 2016 meeting with the City and EPA to discuss the design of temporary chemical feed systems for sodium hypochlorite and sodium hydroxide at the WTP. This letter was posted online on June 2, 2016.*
- *EPA mailed a letter to the City and DEQ on June 3, 2016, to reinforce concerns about residual chlorine levels. This letter was posted the week of June 6, 2016. Several meetings were held and emails exchanged between the EPA, DEQ and City of Flint during the weeks of May 30 and June 6 to address this issue. Staff were also on-site at the treatment plant providing technical assistance. When EPA technical staff and the City met on June 9, it was decided full-scale sodium hypochlorite continuous feed would begin June 13, 2016. On Friday, June 10, the WTP began adding sodium hypochlorite to test the system; all electrical and mechanical appurtenances appeared to be working properly. Staff were on-site again on June 13, 2016 to verify that continuous addition of sodium hypochlorite had begun.*

- **Item 58: “City shall continue to add corrosion inhibitors at sufficient levels”**
  - The Administration Group and Public Health Group have been assigned to this task.
    - *This is an ongoing task. Water quality parameter monitoring reports continue to be posted weekly to the Flint Water website after weekly conference calls with Flint.*
    - *The Public Health Group met with AWOP Team, City of Flint, and volunteers to discuss the Distribution System Water Quality Optimization Plan for the City and related activities.*

**EPA Identified Deficiency #4: Respondents have not adequately demonstrated (e.g., using daily sampling information) that they are maintaining chlorine residual in the distribution system (Paragraph 57) or continuing to add corrosion inhibitors at levels sufficient to re-optimize corrosion control in the distribution system (Paragraph 58).**

- This has been assigned to Public Health Group in coordination with the City of Flint.
  - *Completion of this task is ongoing.*
  - *City of Flint and DEQ have agreed to engage with the EPA’s AWOP for technical assistance.*

- **Item 68: “Preserve records and data for six years”**

- The Administrative Group and the Legal Team have been assigned to this.
  - *This is an ongoing task.*
- To ensure consistency, retain all records following General Schedule #5, specifically GS5.10. When contacted regarding disposal, all records will be put on a litigation hold for one additional year and not destroyed. Training will be conducted by DTMB Record Center to all DEQ staff to ensure consistency and understanding.
  - *This will be an ongoing task.*
- Training will be conducted by DTMB’s Records Center to all MDEQ staff to ensure consistency and understanding.

EPA Order Due Date: 01/21/2022

- **Item 68: “After six years, must notify EPA 60 calendar days prior to destruction of any data pertaining to this order”**

- The Administrative Group and the Legal Team have been assigned to this task.
- To ensure consistency, retain all records following General Schedule #5, specifically GS5.10. When contacted regarding disposal, all records will be put on a litigation hold for one additional year and not destroyed. EPA will be notified when the additional one-year litigation hold is put in place.
  - *This is an ongoing task.*