Implementation Plan
September 2018 Update

Noncommunity Water Supply (NCWS) Data Management Limitations
The Noncommunity Water Supply (NCWS) Program database, WaterTrack, is antiquated and unable to fully track and report recently updated regulatory requirements. For example, WaterTrack is unable to track some violations and assessment follow-up required under the Revised Total Coliform Rule (RTCR). Violations in WaterTrack are generated by the software, and it lacks an option for manual violation entry. Therefore, local health departments (LHD) track this information in spreadsheets, which are submitted quarterly to the Michigan Department of Environmental Quality (MDEQ) for compilation. Groundwater Rule triggered source violations and certification of Lead Consumer Notification are also tracked in spreadsheets. Because WaterTrack cannot house this data, NCWS cannot submit related violations to the United States Environmental Protection Agency (USEPA) via FedRep.

To address this shortcoming, the NCWS is working with partners to establish a copy of USEPA's State Drinking Water Information System (SDWIS)/State software. Once established and tested, it will be populated with WaterTrack core inventory data. MDEQ staff will then manually enter previously unreported violations and report to the USEPA as required. Because the MDEQ does not intend to train 44 LHDs to use SDWIS/State, LHDs will continue to manually track violations and follow-up actions in spreadsheets until SDWIS Prime is available for the Michigan NCWS Program. Violations reported to the MDEQ on LHD spreadsheets will be entered into SDWIS/State by MDEQ staff. The anticipated timeline for achieving these goals is as follows:

Fiscal Year (FY) 2017 Completed Activities
➢ **December 2016**: The MDEQ contracted with USEPA/Science Applications International Corporation (SAIC) to develop a SDWIS/State starter database.
➢ **February – April 2017**: The MDEQ conducted preliminary mapping of WaterTrack data to SDWIS/State tables in preparation for legacy data migration.
➢ **May 2017**: The MDEQ received the starter database from vendor.
➢ **June – September 2017**: Michigan Department of Technology, Management & Budget (MDTMB) installation and troubleshooting of the SDWIS/State starter database and web application on state servers.
➢ **June 2017**: The MDEQ Public Water System Supervision (PWSS) staff participated in a Lean Process Improvement project focused on reporting and processing of laboratory data submitted by water supplies and laboratories. The process underscored the need for enhanced data systems and electronic reporting capabilities. Outcomes of this project are being presented as part of a budget request to expand and upgrade information technology (IT) systems.
➢ **August 2017**: The MDEQ began working with the USEPA to acquire a Blanket Purchase Agreement (BPA) to secure USEPA/vendor support for SDWIS Prime transition efforts.

- ➤ **September 2017**: The MDEQ began the process of hiring an additional full-time employee to focus on implementing IT solutions.

FY 2018 Completed Activities
- ➤ **January – March 2018:** Participated in routine conference calls with the USEPA's SDWIS vendor, SAIC, to work on NCWS data migration to SDWIS/State_NC.
- ➤ **Throughout 2018:** Continued work on migration of NCWS core inventory data to SDWIS/State_NC. Competing IT priorities slowed this effort, but progress was made. The most notable competing priorities included securing funding for long-term IT projects (see items below), an effort that required substantial staff time, but is essential to improving IT systems.
- ➤ **Throughout 2018:** Worked to secure a BPA with the USEPA for SDWIS Prime implementation. The MDEQ is currently working with the USEPA on vendor evaluations.
- ➤ **January 2018:** Applied for a USEPA Exchange Network Grant to partially fund the BPA. The MDEQ continues to wait for the USEPA's announcement of grant recipients (expected in June 2018, but still not announced as of September 2018).
- ➤ **Throughout 2018:** The MDEQ spent significant time and effort applying for funding from the State of Michigan's Information Technology Investment Fund. Efforts included several Lean Process Improvement projects and extensive requirements planning. As a result, the MDEQ was awarded $6 million to support the Drinking Water and Municipal Assistance Division's (DWMAD) IT modernization. IT upgrades will support numerous DWMAD programs, including extensive improvements to PWSS data management systems. This money becomes available in FY 2019.
- ➤ **May and September 2018:** Hired one NCWS position in May 2018 and one community water supply (CWS) position in September 2018 to support ongoing and upcoming IT modernization projects.

FY 2019 Planned Activities
- ➤ **1ˢᵗ Quarter and 2ⁿᵈ Quarter**
  - ▪ Complete migration of NCWS core inventory data to SDWIS/State.
    Note: At the time of this writing, the MDEQ is aware of an IT issue that may delay this work. The MDTMB is turning off TLS 1.0 and 1.1 and turning on TLS 1.2 on the database and web servers because they are at end-of-life. This is causing SDWIS web application to database communication errors. The MDEQ is working with the MDTMB and the USEPA's vendor, SAIC, to resolve the problem. A resolution date is not yet known, but the MDTMB's Go Live date is currently October 18, 2018.
  - ▪ Manually enter a select group of previously unreported violations (possibly Ground Water Rule triggered source water monitoring violations) and test the FedRep data extraction and submittal process.
  - ▪ Review and plan for limited adoption of the Compliance Monitoring Data Portal (CMDP) by the CWS Program. Identify pilot laboratories for testing. Once assigned, work with the BPA vendor on this project.

- If authorized by the State, additional new DWMAD staff positions will be created and filled. One of the positions proposed will focus on the CMDP lab data transition and system administration.

  ➢ **3rd Quarter and 4th Quarter**
    - If FedRep testing is successful, begin manually entering and reporting all "date forward" NCWS violations identified in spreadsheets provided quarterly by the LHDs. Violations targeted include those RTCR violations not currently reported; Lead and Copper Rule (LCR) source water monitoring violations; and LCR lead consumer notice reporting violations.
    - Assess effectiveness of manual violation entry and reporting of NCWS violations. Make changes to the process as necessary. Develop a strategy to enter remaining historical violations previously tracked in spreadsheets, with RTCR and LCR violations being the priority.
    - Work with the BPA vendor on long-term planning for SDWIS Prime transition.
    - The USEPA indicates SDWIS Prime version 1.0 will be available by this time. Both the NCWS and the CWS Programs will continue work toward SDWIS Prime implementation.

Commitments beyond FY 2019
➢ When the USEPA's SDWIS Prime software is released and sufficiently functional, the MDEQ plans to begin transition to SDWIS Prime for CWS and NCWS.
➢ Continue transition to CMDP and SDWIS Prime until full implementation achieved.
➢ Train MDEQ and LHD staff on use of SDWIS Prime. Provide support to setup and/or train laboratories and water supplies on use of CMDP for electronic reporting.

Issuance of Reporting Violations
Due to resource limitations, it has been necessary for the MDEQ to prioritize activities to ensure tasks with direct impact to public health are addressed first. To that end, the MDEQ has focused resources on enforcement of drinking water standards and monitoring requirements and has placed a lower priority on enforcement of missed reporting deadlines. Currently, the MDEQ issues violations for missed reporting deadlines in select cases, usually against water supplies that chronically report late and/or against those involved in escalated enforcement cases involving other noncompliance issues. Additionally, the CWS Program expanded efforts for RTCR and LCR reporting violations in FY 2018 and will further expand violation issuance for missed reporting deadlines as described below.

FY 2018 Completed Activities
➢ During FY 2018, the CWS Program issued violations to water supplies who submitted laboratory or other reports more than 20 days late for the RTCR and LCR.
➢ The NCWS Program provided training to LHD/MDEQ staff regarding the benefits of establishing early monitoring deadlines. Additionally, the NCWS Staff Reference Guide underwent revision in FY 2018 and was presented at the September 2018 LHD training.

- ➢ Operator training in FY 2018 discussed reporting violations as a distinct violation type of the RTCR. Also, the benefit of sampling early in a monitoring period was explained in terms of it allowing opportunity to resample if hold times are exceeded or thermal preservation requirements are not met.

FY 2019 Activities
- ➢ The CWS Program will expand enforcement of late reporting by issuing violations to water supplies who submit reports more than 20 days late for all rules.
- ➢ The CWS Program will continue to review its resources throughout FY 2019 to determine if additional commitments can be made.
- ➢ Because the USEPA did not release SDWIS Prime in FY 2018 as anticipated, the CWS program will explore implementation of CMDP prior to the release of SDWIS Prime.
- ➢ NCWS again commits to educating water supply owners and operators to sample early to ensure timely reporting of results; educating LHDs on the benefits of instituting early sampling deadlines; and educating labs on the impact of delays in reporting sample results.

Commitments Beyond FY 2019
- ➢ Expanded IT solutions are needed to fully address late reporting by facilitating tracking and better utilizing staff time. Once the MDEQ realizes efficiencies from implementation of CMDP, SDWIS Prime, and updated internal data systems, enforcement of reporting requirements will be further expanded until full implementation is achieved.

Issuance of Tier 3 Public Notification (PN) Violations
When violations are issued, the MDEQ notifies water supplies of all PN requirements and provides PN templates with the violation notice. Due to resource limitations, the MDEQ places enforcement priority on failure to issue Tier 1 and/or Tier 2 notifications. Tier 1 and Tier 2 PNs inform the public of direct threats to health, such as exceedance of drinking water standards, and provide health and exposure mitigation information. Because Tier 3 PNs notify the public of missed monitoring or late reporting (as opposed to immediate health concerns) and are not required to be distributed for up to 12 months after the missed event, enforcement of these notices is lower priority. In most cases, the water supply has returned to compliance with the violation that triggered the PN long before the distribution deadline.

- ➢ **Future Commitment**
Because the MDEQ will focus resources on improving the first two items above, enforcement of Tier 3 PN requirements must remain a lower program priority in the near term. The MDEQ will continue to enforce Tier 1 and 2 PN. Once additional IT solutions are available, including electronic submission and automated notices, the MDEQ will expand Tier 3 enforcement to achieve full implementation.

Beginning in FY 2018 and until full enforcement can be achieved, the MDEQ will make available on its website, by July 1 of each year, a list of water supply violations with Tier 3 PN

requirements. Though this information is already available on the USEPA's ECHO website, this will provide a more user friendly, quick-reference for the public.

Summary
The MDEQ is committed to work diligently toward full implementation. Through the Lean Process Improvement process, targeted priorities have been identified, both IT and non-IT. Additionally, this process mapped efficient "future states" resulting in benefits for DWMAD staff, water supply owners and operators, and the public. In October 2018, the MDEQ will receive $6 million in IT funding which will be used to develop SDWIS Prime interfacing applications. The MDEQ anticipates a large amount of staff resources will be needed to work with IT developers. Ultimately, however, these applications will allow robust violation reporting, help reduce reporting violations, minimize staff time spent manually entering data, and provide better data tracking and analysis tools.