



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

SEP - 2 2016

The Honorable Karen Williams Weaver
City of Flint
1101 South Saginaw Street, Room 101
City Hall
Flint, Michigan 48502

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Mr. Keith Creagh
Director
Michigan Department of Natural Resources
Constitution Hall
525 West Allegan Street
P.O. Box 30028
Lansing, Michigan 48909-7973

RE: Water Source Selection for the City of Flint

Dear Mayor Weaver and Director Creagh:

In the coming days, the City of Flint will need to make a choice about its long term source of drinking water. Toward this end, we understand that the State is sending the City a summary of the City's options regarding this issue. EPA is sending this letter to make sure the City and State understand their obligations under EPA's enforcement Order issued in January of 2016 and to note that a decision must be made that will allow for adequate demonstrations of treatment before any change in water source occurs.

The Order requires a number of actions before a change in source water occurs to ensure a safe transition. One of those required actions is a "shakedown," or "performance," period to allow for the demonstration of the adequacy of treatment of the new water source to meet all National Primary Drinking Water Regulations (NPDWRs) before it can be distributed to residents. Based on our experience, we expect that the required performance period can range from a minimum of three months to six months or longer, depending on the source water choice and other factors. A copy of paragraph 60 of the Order, which pertains to this issue specifically, is attached for your reference.

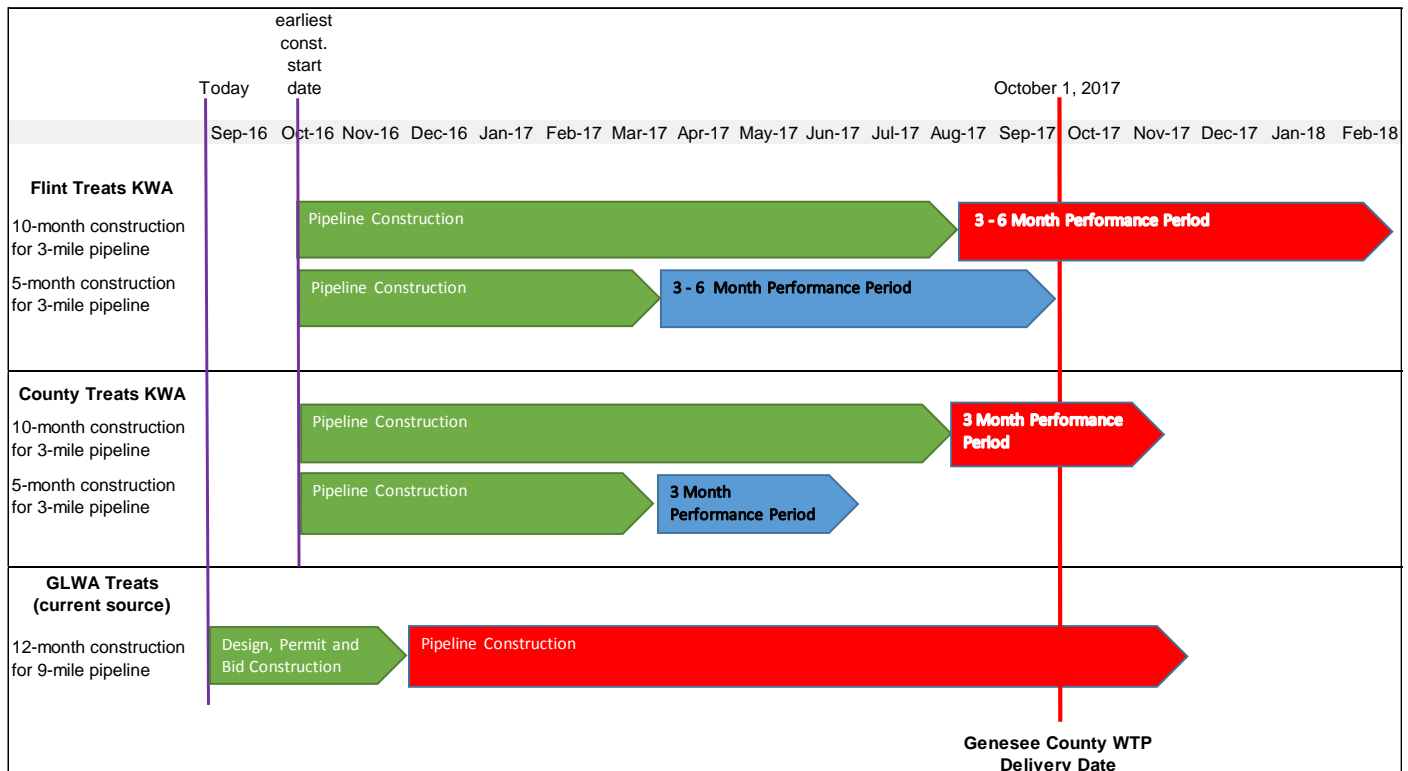
It is essential that the City move quickly to make a final source water selection because there are a number of factors, outlined below, that leave little time to ensure the necessary requirements are met. The same point was made previously when the options were presented by the Karegnondi Water Authority (KWA) Subcommittee at the July 22, 2016 Flint Water Interagency Coordinating Committee (FWICC) meeting and included in its Final Report presentation. The Report discusses the water source selection options and recommends that a decision on primary water treatment be made within 30 days. EPA understands that the State of Michigan and the Michigan Department of Environmental Quality have had several meetings with, and provided information to, the City about possible options that are available for primary and backup drinking water sources.

As you consider these options, there are three key factors that affect the schedule:

- 1) A nine mile portion of Flint's drinking water distribution system was sold to Genesee County for County distribution of KWA water, and the County currently projects that it will begin using that nine mile segment in October of 2017. Therefore, unless other arrangements are made, in October of 2017 Flint will no longer have access to finished drinking water from the Great Lakes Water Authority (GLWA), forcing a choice on an alternative source.¹
- 2) EPA expects the performance period required by the Order will take a minimum of 3 months, or potentially longer if Flint chooses to treat KWA water itself as its primary drinking water source. The additional performance demonstration time for this option results from the much greater complexity involved with running a treatment plant as compared to running only a distribution system, and the inability to start a corrosion control study for treatment at Flint until the three mile pipeline (referenced below) is complete. A corrosion control study at Genesee County could start sooner.
- 3) Before the performance period can start, a three mile pipeline to carry KWA water to the Flint water treatment plant (WTP) must be finished. An uncertain amount of time is needed to bid, award, and complete construction of this pipeline. Construction of this pipeline has not yet started, although we understand that the State estimates construction will take about five months from the awarding of the contract, assuming no unforeseen circumstances arise. It is possible that the time to completion is closer to 10 months, depending on the delays that can occur.

Given these factors and the requirements of the Order, and based on EPA's understanding of the information gathered by the State and discussed with the City regarding water source selection options, EPA has created the following options timeline showing the series of required steps for each option needed before October 2017. EPA notes that the "County Treats" option does not include the 24 to 36-month estimate needed to expand the Genesee County WTP to provide a long term solution for Flint drinking water. Please note that in addition to the topics presented here, per the Order the City must demonstrate it has the managerial, technical, and financial capability for running its WTP and distribution system, including all upgrades and hiring of necessary personnel, prior to the performance period.

¹ Per the City's July 12, 2016 letter to EPA, we understand that the City's water source selection will be tied to the KWA, and that continuing to receive water from GLWA is not an option that the City is pursuing. Based on the information that has been provided to EPA, we note that construction of an alternative nine mile pipeline to replace the portion that was sold could not be completed before October 2017.



Options Timeline

As this graphic shows, unless Genesee County agrees not to begin use of the nine mile pipeline in October of 2017, any delay in water source selection and any delays beyond 5 months in constructing the 3 mile pipeline may result in the City being unable to timely demonstrate its capability to provide safe drinking water as required by the Order. We note that five months to construct the 3-mile pipeline is likely “best case,” and that the actual time required may well be closer to 10 months, which is why both time periods are reflected in the graphic above.

The requirements of the Order designed to ensure adequate treatment of drinking water, including the performance period and a demonstration of corrosion control prior to a change in source water, cannot be compromised. I know we share a common objective that the City of Flint not be further impacted by inadequate preparation for a change in source water. If the calendar does not allow for an adequate performance period and corrosion control demonstration, then alternative arrangements must be made to allow the continued provision of GLWA water to Flint until the adequate performance period and demonstration of corrosion control can be made. If necessary to meet the Order requirements, arrangements must be made with Genesee County to delay its planned distribution of finished KWA water to its customers.

As the City and State evaluate primary and backup drinking water source options, the following are the necessary considerations:

- 1) The primary criterion for evaluating options is protection of public health and compliance with the Safe Drinking Water Act and the NPDWRs;

- 2) The selected option(s) must comply with all provisions of the Order, and provide sufficient time to do the following:
- a. Make any necessary process improvements for the Flint WTP and distribution system;
 - b. Address personnel staffing levels and training; and
 - c. Allow for implementation, including time to correct any problems found, of a successful shakedown period to demonstrate adequacy of treatment and distribution of the new water source so as to meet all NPDWRs.

We encourage the City and State to give these discussions their highest level of attention given the time pressure that exists to make a decision and meet the requirements of the Order. If you have any questions concerning this matter, please do not hesitate to contact me at (202) 564-4001.

Sincerely,



Mark Pollins
Director
Water Enforcement Division

Enclosure

cc: C. Heidi Grether, Director, MDEQ

Excerpt from January 21, 2016 Emergency Order

60. Respondents shall not effectuate a transition to a new water source for the City's PWS (e.g., from KWA) until such time as they have submitted a written plan, developed through consultation with appropriate experts and after providing adequate advanced notice and an opportunity for public comment, to MDEQ and in accordance with Paragraph 51, demonstrating that the City has the technical, managerial and financial capacity to operate its PWS in compliance with SDWA and the NPDWRs and that necessary infrastructure upgrades, analysis, and testing have been completed to ensure a safe transition. Such plans shall include, but not be limited to, provisions addressing:

- a) The impacts on corrosion control for any new source water and an operations plan for periodic use of existing sources of water;
- b) Completion of corrosion control study for any new sources;
- c) Implementation of a "performance period" that allows for the demonstration of the adequacy of treatment of the new water source to meet all NPDWRs before it can be distributed to residents; and
- d) The City's technical, managerial and financial capacity to meet SDWA's applicable requirements, including the NPDWRs, during and after the transition to any new water source.