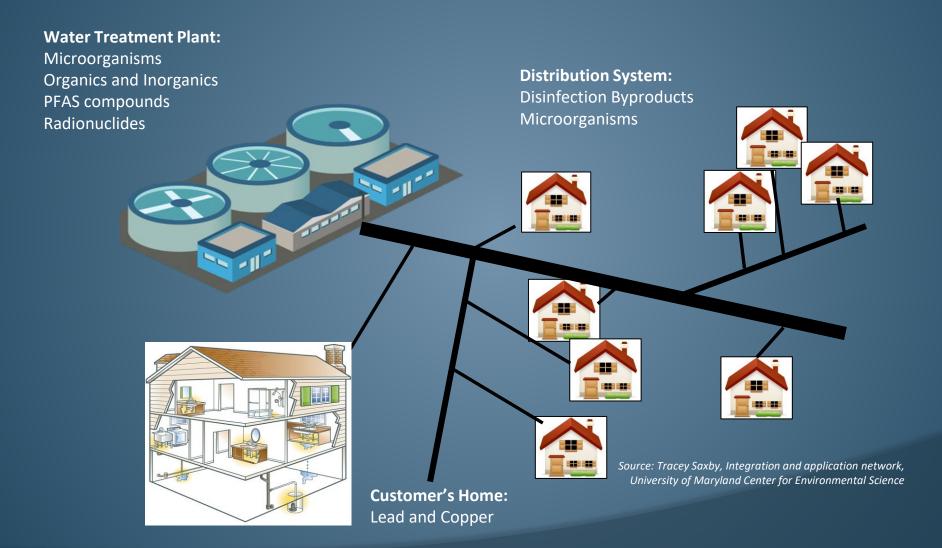


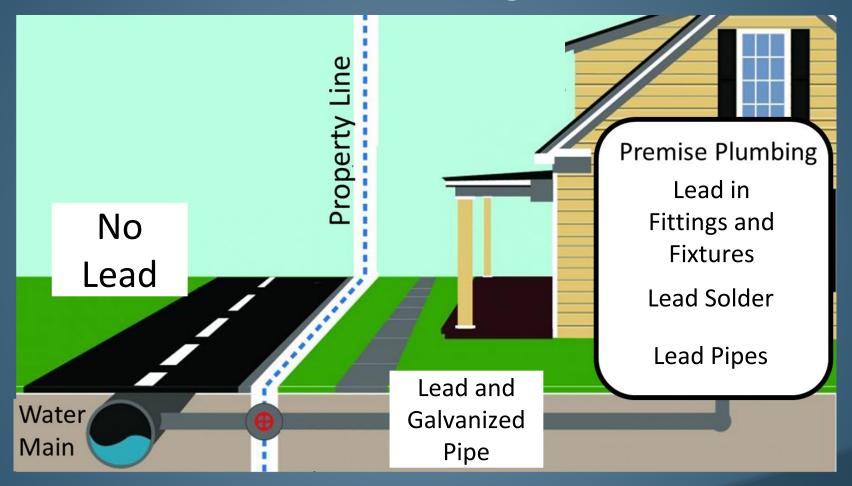
Water Quality in Benton Harbor

Elin Betanzo
Safe Water Engineering, LLC
June 4, 2022

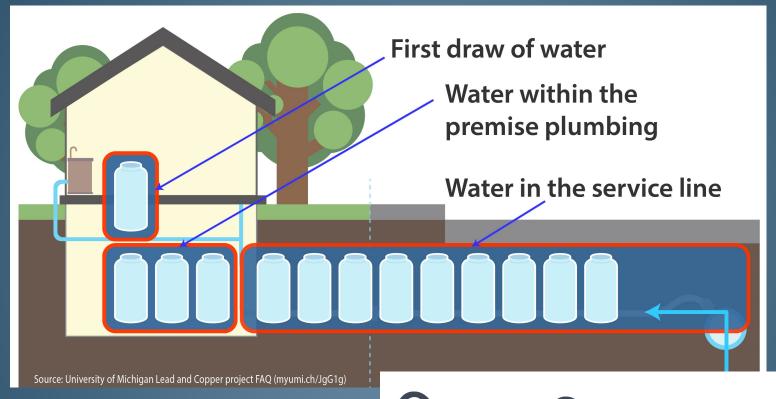
How we monitor drinking water quality



Sources of Lead In Drinking Water



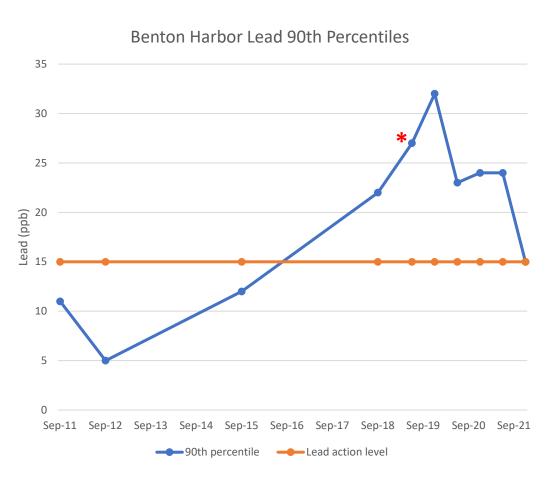
Sampling for Lead in Water

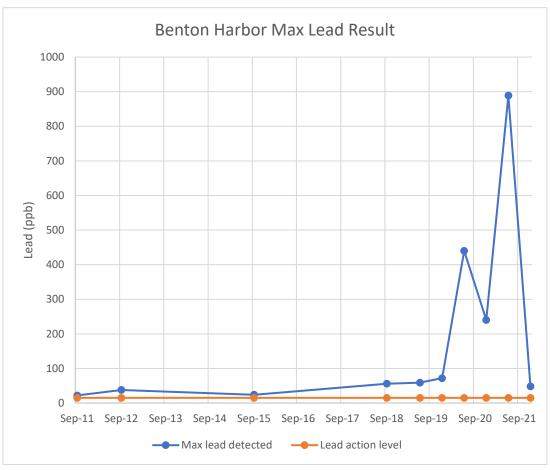


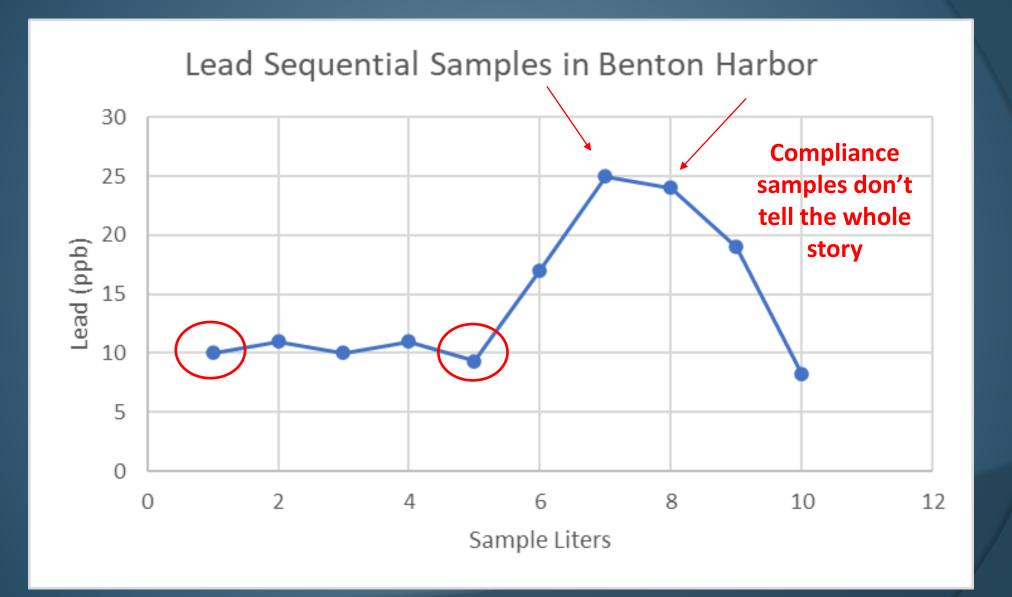
Sampling Under the Revised Michigan Lead and Copper Rule



Benton Harbor Lead Compliance Sampling Results

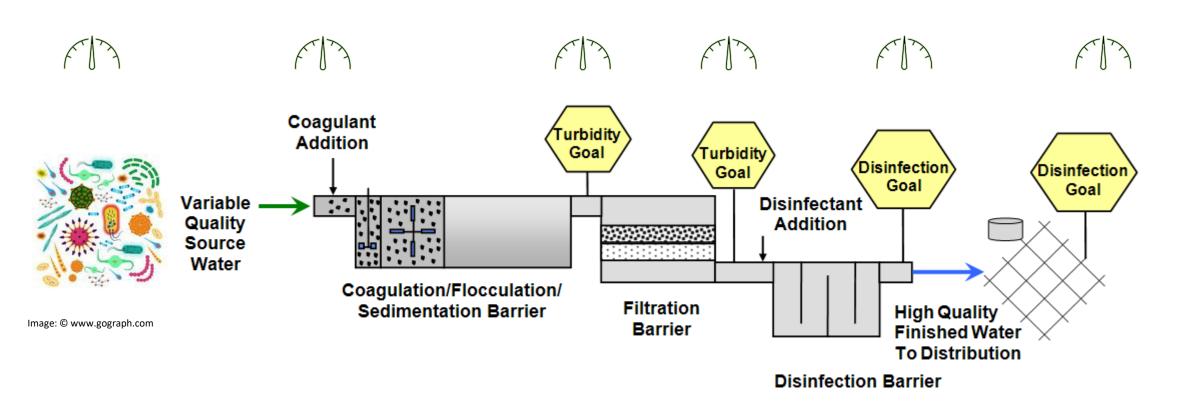




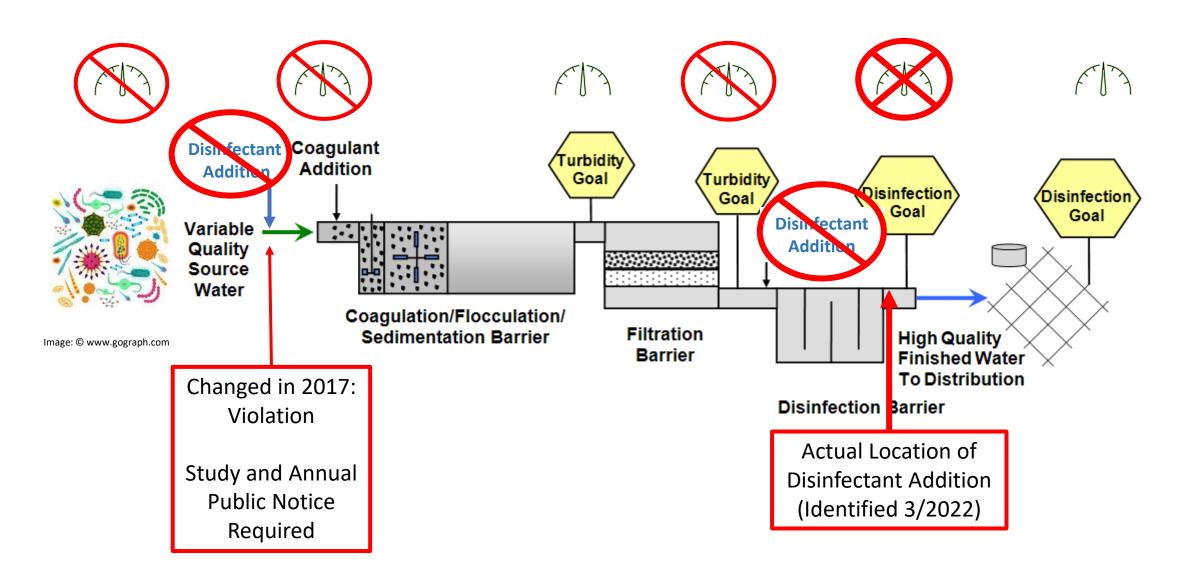


Issues at the Benton Harbor Water Treatment Plant

Conventional Surface Water Treatment Plant



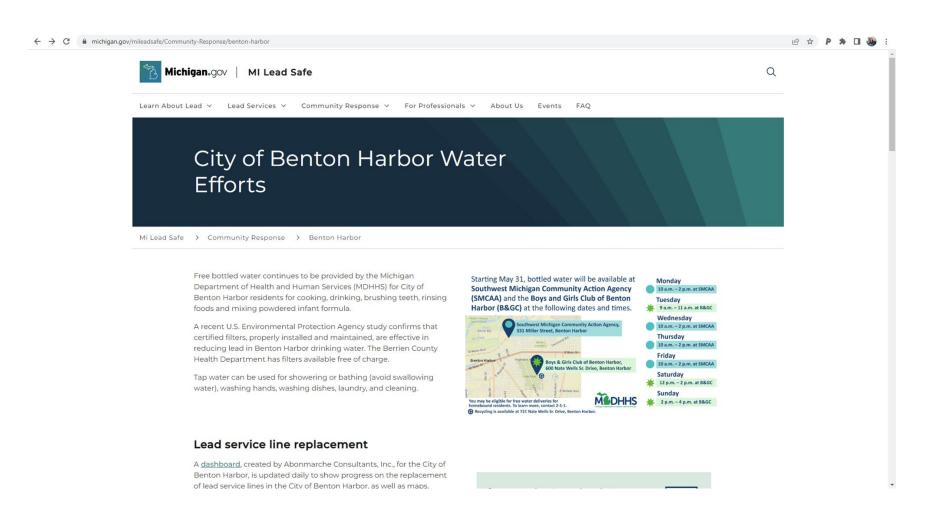
Benton Harbor Water Treatment Plant



In EPA's Own Words... Data collected through February 2022 do not represent the treatment process

4. During the inspection EPA observed an increase of approximately 1 mg/L in the chlorine residual from the start of the inspection around 8:30 AM to around 10:00 AM. At the time of the inspection, it was EPA's understanding that the chlorine feed was occurring upstream of the reservoirs. Based on where chlorine is being applied to the water upstream of the reservoirs, the amount of chlorine being injected, and the location of the finished water chlorine analyzer taking measurements from the suction well it is highly unlikely that the chlorine dosing was occurring at a location upstream of the reservoirs. In follow up conversation after the inspection, it has been determined that chlorine is being injected into the suction well and not upstream of the filters as previously stated and therefore the chlorine residual spike was being observed during the day operations of the plant. The chlorine dosing directly into the suction well means that the existing continuous chlorine analyzers are not an accurate representation of the residual disinfectant levels throughout the treatment process.

Public Health Messaging to Date Does Not Mention Failures at the Water Treatment Plant



EPA Filter Study Information

EPA Filter Study Results:

Filters reduce lead but not microbial contaminants

Faucet Mount filters consistently reduce lead below detectable levels



Pitcher Style filters consistently reduce lead below 5 ppb

Use Lead Reducing Filters When The Water Treatment Plant is Fixed

