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Status Update for Flint Distribution System Optimization

Team Activities: September - December 2017

- To improve the prevention of problems, we completed several draft standard operating procedures (SOPs) for the Water Utility. These include steps for maintaining equipment such as pumps, valves, tanks, meters and hydrants; adding chemicals; repairing water main breaks, and flushing pipes.

- We completed a set of tests to see if improvements can be made to the corrosion control treatment. MDEQ reviewed the tests' results and increased the minimum pH from 7.0 to 7.2. The next set of tests is likely to start in February.

- We worked with the US Environmental Protection Agency to improve the computer model that helps understand how water flows throughout the system. We used the updated model to find ways to improve water quality and reduce main breaks, and recommended that the City no longer use the West Side Reservoir.

- We reviewed the City's files that store information about the system assets, such as installation and repair dates, and worked with the Water Utility staff to fill in missing information. We are now using this information to create a plan that will include a multi-year schedule for repairing and replacing outdated equipment and pipelines.

- We developed a household flushing procedure that can be used immediately after service lines are replaced, to reduce spikes in lead that can occur as a result of the replacement process.

- We are grouping the full list of future improvements (everything from replacing water mains to purchasing new equipment for the water quality laboratory) into short-term (0-2 years), mid-term 3-5 years) and long-term (5-20 years).

- We are developing training materials for the Water Utility distribution staff that will focus on general water distribution system tasks, heavy equipment operation, safety, customer communications, water treatment and other actions to protect public health.