

A little more about the chemistry...

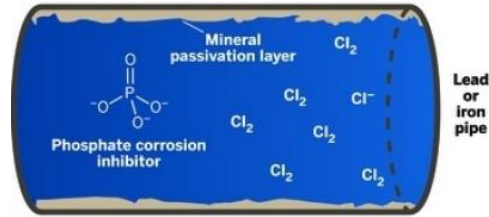
Change in water chemistry was caused by a change in water source and a change in treatment method....

No mineral coating leads to greater corrosion. Corrosion is caused by presence of oxygen molecules and chlorine ions.

NO STABLE SURFACE TO PREVENT REACTIONS!

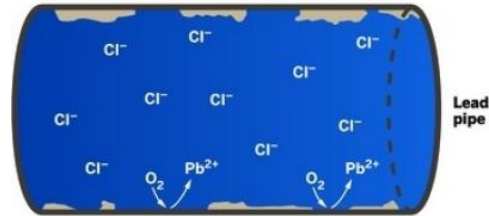
Before: Treated Detroit water

Phosphate corrosion inhibitor helps maintain a mineral passivation layer on the inside of Flint's pipes, protecting them from corrosion. With little corrosion, chlorine disinfectant levels remain stable.



After: Treated Flint River water

Lack of a corrosion inhibitor, high chloride levels, and other factors cause the passivation layer to dissolve and fall off, leading to increased corrosion in Flint's pipes. As the pipes corrode, chlorine disinfectant breaks down.



Oxidants such as dissolved O_2 corrode pipes and leach soluble metal.

