



Mansfield Elementary School Water Mitigation System



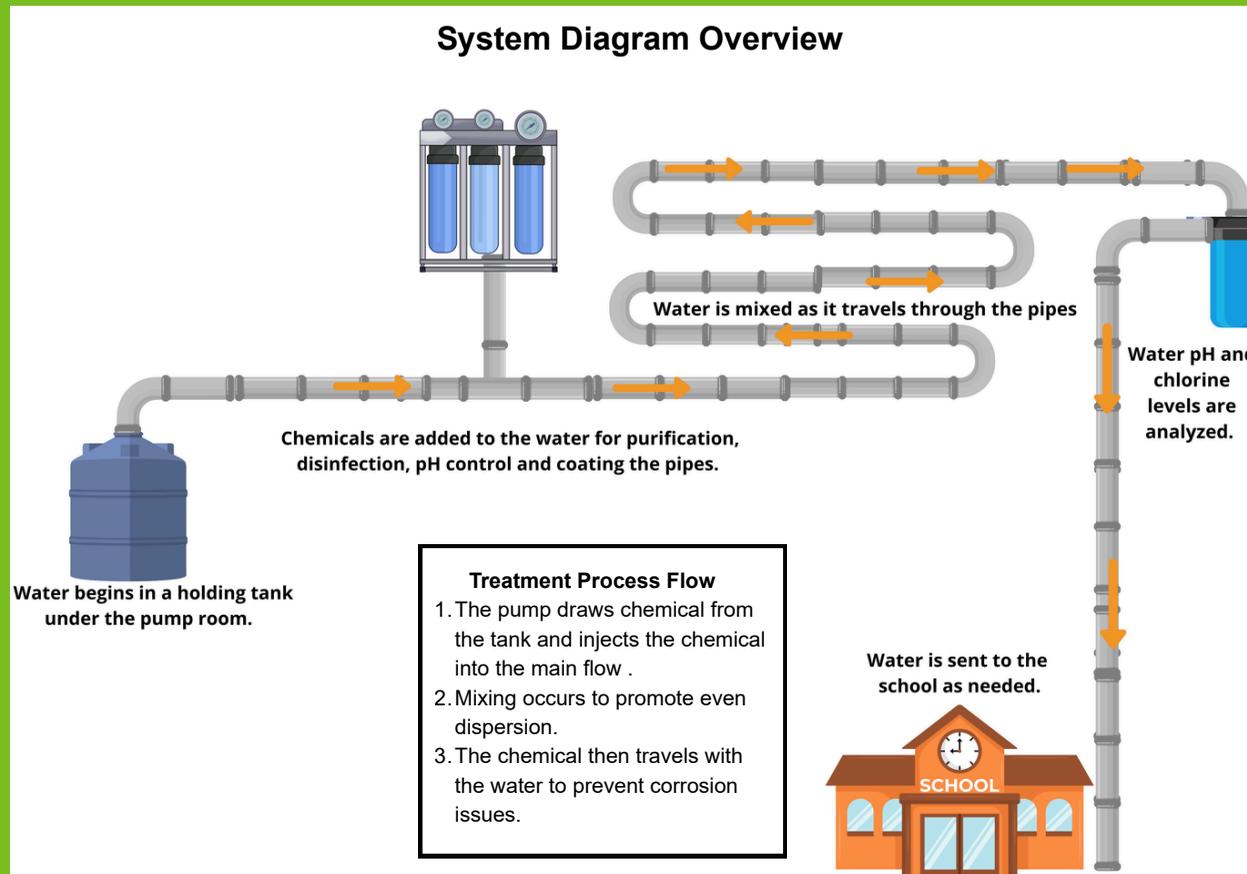
How does the Optimal Corrosion Control Treatment (OCCT) chemical injection system work?

An Optimal Corrosion Control Treatment (OCCT) chemical injection system is designed to protect water infrastructure by carefully adding small, controlled amounts of treatment chemicals into the water system to reduce corrosion and maintain water quality. The system operates by drawing a concentrated corrosion control chemical from a storage tank and injecting it into a water pipeline through a precision dosing pump. This pump delivers the chemical at a calibrated rate so it mixes thoroughly with the flowing water and provides consistent protection to pipes, fixtures, and other system components.

The system includes valves and control mechanisms that regulate flow and respond to pressure differences between the injection line and the main water line, ensuring the chemical is introduced safely and effectively. Injection typically occurs through an injection point or quill that extends into the pipe, allowing even distribution and preventing localized corrosion or wear. Monitoring equipment such as flow meters and level sensors continuously track chemical usage and dosing accuracy, helping operators maintain optimal treatment levels, comply with regulatory standards, and avoid issues such as pipe corrosion, scale formation, or costly maintenance problems. Water testing occurs on a quarterly basis.

System Components

- **Storage Tank:** Holds the concentrated treatment chemical (e.g., orthophosphate for water).
- **Injection Pump:** A precise dosing pump (sometimes solar-powered) draws from the tank and pushes the chemical into the system.
- **Valves & Controls:** Ball valves manage flow, while specialized valves (like injection valve ports) open based on pressure differences between the injection line and the main pipe, allowing chemical entry.
- **Monitoring:** Flow meters and level controllers ensure accurate dosing and detect issues, reducing maintenance.



Pump Room

Water Testing Report 12/8/2025



Copper Levels well below actionable level. (Range .277-.333)

*Actionable Level (AL): 1.3

Full Report