

SCHOOL DRINKING WATER PROGRAM

FLUSHING SCHOOL PLUMBING (FRESH TAP METHOD)



Even though source water entering the building may meet federal and state standards, the water pipes and plumbing fixtures within a building can affect the quality of drinking water. Therefore, it is important to perform routine water management practices to limit bacteria, lead, or other contaminations and ensure quality drinking water for students and staff. One of those best management practices is flushing. An ongoing flushing program is one of the quickest and easiest solutions to ensure the water quality is preserved by decreasing water age (stagnation).

Flushing is a tool, but only when used appropriately. In general, EGLE recommends a two-method flushing program that can be incorporated in an overall school water management program; the “Fresh Tap Method” and the “[High Velocity Flushing Method](#).” This document explains the Fresh Tap Method; the High Velocity Method is explained in a separate document found at Michigan.gov/SchoolWater.

Flushing should be conducted for all drinking water or food preparation taps that have not been used for an extended period, such as after a long weekend, seasonal breaks, or other long term shut down. EGLE recommends the high velocity flush to remove particulates and sediments at least once a year before the beginning of the school year (August) and a frequent potable tap flush occurring daily, weekly, or monthly to refresh the water. The following is a general process or template, and every building and water system is unique. A water management plan with flushing tailored to each building should be developed.

What is Fresh Tap Flushing?

Fresh Tap flushing involves:

1. Refreshing the drinking and food preparation taps (cold-water side of the building plumbing). Hot tap water should never be used for drinking or cooking purposes.
2. Knowing where the water enters and how it flows to each tap through the building. Every building is different, and the order of tap flushing is important.
3. Knowing and documenting the locations of all water taps.
4. Opening the cold-water side of drinking water and food preparation taps one at a time and letting the water run for a specified time to remove water that has been standing in the interior pipes and/or the taps. Flushing times can vary by the type of tap being cleared.

Frequency of Fresh Tap Flushing

1. Depending on the building plumbing system, and water use, frequency could vary. A flushing program should be developed to ensure continual quality drinking water at every potable tap.
2. In general, the Fresh Tap Method flushes fixtures used for drinking or food preparation individually for 30 seconds to one minute on a frequent basis – that basis could be daily or once a week. For example, a good practice would be to flush on Monday mornings before students return from the weekend. It could even mean flushing certain fixtures twice a day or before every use to reduce water quality issues in specific areas or at specific taps. This flushing keeps “fresh” water moving to the taps. In addition, the flushing program could incorporate education of all users to run the water for thirty seconds before consumption.
3. Some buildings may have many taps and flushing all of them on a weekly basis may not be possible due to a lack of time and staff, therefore the program should be modified to best fit resources available. Be thoughtful on how best to reduce drinking water health risks. Flushing the end of the line at risers and laterals on a weekly basis and having users run the tap for 30 seconds may be adequate in providing quality water.

Fresh Tap Flushing Procedure

1. The first tap to flush is the tap closest to the point of water entry into the building. This will remove stagnated water from the service line (the line from the city to the building). Flush this tap for ten minutes or more.
2. Then flush the tap farthest from the service line for ten minutes or more to flush out the main pipe running through the building. If the building has more than one wing, do this with the farthest tap in each wing. If a building has multiple floors, start at the top floor, and work your way back towards the service line. Be mindful of where the risers enter each floor and the path of water.
3. Flush each individual tap for 30 seconds to one minute at each kitchen faucet or other classroom faucets where water is used for drinking and/or cooking after the 10-minute furthest point flush for each wing or floor.
4. Flush water fountains without refrigeration units for 30 seconds to one minute.
5. Let the water run at all unfiltered refrigerated water fountains for at least 15 minutes to ensure that the water storage has been refreshed.
Note: Do not remove filter cartridges during flushing. Refresh any drinking fountain with an in-line filter for the reduction of lead for 30 to 60 seconds at the bubbler and bottle fill outlets. Replace filters per manufacturer’s recommendations.
6. Routinely inspect, clean, and replace as necessary all strainers and aerators, and maintain all filters per manufacturer’s recommendation (including replacing filters timely).

Other Considerations

1. Develop a system for accountability including identifying one person in charge of the program and record keeping.
2. Be aware not to overload wastewater drains during tap flushing.
3. Unless you can ensure lead levels remain low throughout the day, it is not recommended to flush only once a day or once a week as a solution to high lead levels.
4. The only way to know the true quality of the water is to sample and test it.
5. This method could also be used for flushing stagnant hot water out of the system.

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