Attachment A

Superintendent’s Memo #056-21

March 5, 2021

**Overview of Water System Restart for Public Schools in Virginia**

* When water systems in buildings are not used, the disinfectant in the water dissipates over time. Without chlorinated water flowing through the pipes for an extended period, microorganisms can grow in water pipes, fixtures and tanks. Some of these may cause disease if they are consumed or inhaled as droplets (particularly while showering).
* Prolonged water stagnation also can diminish the normal, protective scale on interior pipe walls. Without the protective scale, metals like lead from the piping may dissolve or shear off as particles and end up in water used for drinking or food preparation.
* During the flushing process, stagnant, existing water is replaced with fresh water, which has been continually treated and monitored by the water utility. By running water through the pipes we can flush out the old stagnant water and bring in fresh water to replace it.
* This is usually accomplished by running water fixtures such as showers, faucets, and flushing toilets in order to clear out the old water in the pipes and allow fresh water to flow through. The amount of time this is done depends on the size of the building and the configuration of the building plumbing.

Flushing may be necessary during periods of reduced use

* During the COVID-19 Pandemic, some school buildings have remained open with staff but with greatly reduced numbers of students. This means that ongoing water usage may not be sufficient to maintain adequate building water quality and ongoing flushing may be necessary.
* Ongoing flushing can repair destabilized scale and control biofilms. Re-stabilizing scale and controlling biofilms is an ongoing process. Even when the building water system has recovered from a lengthy stagnation, ongoing flushing is a best practice, is easy and it has proven water quality benefits.

**Helpful resources for developing a building flushing procedure:**

* [Hampton Roads PDC, System Flushing Guidance](https://www.hrpdcva.gov/uploads/docs/HRPDC-FlushWater-Instructional-HRPDC-vF050820.pdf)
* [Washington State Department of Health, Guidance for *Legionella* and Building Water System Closures](https://www.vdh.virginia.gov/content/uploads/sites/14/2020/10/LegionellaandBuildingWaterSystemClosuresCOVID-19-1.pdf)
* [Environmental Science, Policy & Research Institute: Building Water Quality and Coronavirus: Flushing Guidance for Periods of Low or No Use](https://www.dcwater.com/sites/default/files/documents/FINAL_Coronavirus-Building-Flushing-Guidance-20200403-rev-1.pdf)