How to Develop a Drinking Water Management Plan for Schools and Child Care Facilities

The Clean Classrooms for Carolina Kids program helps schools and child care facilities identify and eliminate lead in drinking and cooking water where children learn and play.

This flyer focuses on developing a drinking water management plan. We assume that you have already 1) received your lead in water results for every drinking and cooking tap, and 2) mitigated lead in water at taps, as needed.

**Steps to Complete and Maintain a Drinking Water Management Plan**

**STEP 1: MAP ALL TAPS IN YOUR FACILITY**
- **Plan and catalog:** This may be something you already did before collecting water samples for testing, but if not, make a plan to catalog and map all the taps in your building, along with their designated use (e.g., handwash only, cooking, drinking).
- **Check:** Note the location of the water meter and where water enters each building.

**STEP 2: DESIGNATE TAPS FOR DRINKING AND COOKING AND COMMUNICATE WITH YOUR COMMUNITY**

Let your staff and students know which taps can be used for drinking and cooking and which should only be used for handwashing with proper signage and communication. This process can be implemented after mapping all taps in your facility. To decide on which taps to designate for drinking and cooking, discuss the following considerations with your facilities staff:
- **Prioritize:** Fewer taps to maintain means less work and maintenance expenses on flushing and potentially filter maintenance.
- **Select:** We recommend selecting taps for drinking and cooking where first-draw samples have tested below 1 ppb. Follow our no-cost and low-cost solutions for lead in drinking water. Ensure there is at least one safe drinking water tap for every 100 students.
- **Post:** Place signs at all taps to indicate whether they are for drinking and cooking or for other uses.
- **Share:** Communicate relevant information with all building users including proper usage of the designated taps for drinking and cooking.
- **Empower:** Enlist all staff to help children practice using the correct taps.
STEP 3: DEVELOP A FLUSHING SCHEDULE

Regularly running water through your pipes helps keep lead levels in them low. When water sits in pipes, it allows lead to move into the water from pipes, solder, or faucets and fixtures. When used in combination with other steps to get the lead out like replacing faucets and installing filters, it can help reduce lead levels and build-up of bacteria throughout the building. Flushing water filters can also help prevent clogging.

Plan: We recommend developing and implementing a flushing plan like the one in the box on the right to use after all school holidays and summer breaks. After weekends or each morning, facilities can also communicate with staff to run the water at their classroom and hallway taps for 30 seconds to one minute prior to consumption.

Clean: Clean any faucet screens and aerators, which can collect sediment containing lead, during the flushing routine at least quarterly.

Flush: Follow the plan!

Note that flushing is not recommended as a solution to lead levels at or above 10 parts per billion without first replacing faucets and installing lead-certified filters as it does not remove the source of lead and may be ineffective.

Guidelines for flushing faucets to maintain water quality

• Use the map you created to identify the taps that are farthest away from where the water enters the building on each wing and each floor of the building.
• Let the water run at each of these taps for 10 minutes (flush one floor at a time to avoid water pressure issues).
• Let the water run at all water fountains for 1 minute.
• Let the water run at all kitchen faucets and any other drinking/cooking faucets for 1 minute.

STEP 4: MAINTAIN WATER FILTERS

It is important to maintain any water filters installed to remove lead. Under-sink and water fountain filters have disposable cartridges that must be replaced regularly to make sure the filters continue to remove lead. Remember—filters are only as good as how well they are maintained! This is because these filters work by accumulating contaminants from the water onto the filter’s surface. Once the filter cartridge is full, it cannot remove any more contaminants and may release the accumulated contaminants back into the water.

• Follow the manufacturer specifications: Replace the filter cartridges as often as the manufacturer recommends—usually every 6 to 12 months, or after a certain volume of water has been filtered.
• Check the light: Some water fountains have an indicator light that turns red when the filter needs to be changed. Set a schedule to check these regularly throughout the year to know when to change the filters.
• Put an alert on your phone: If the device doesn’t have a built-in indicator (many under-sink filters do not), develop a system to remind you when the filter needs to be replaced. This can be as simple as setting a reminder in your phone.
• Purchase in advance: Order at least one to two filters in advance of the next replacement for each tap so you have them on hand.
• Consider a monitor: The best solution is to have real-time monitoring of water use through all filtered taps to know exactly when to replace filters without having to do manual inspections. For a complete water filter monitoring system to easily keep track of all your filters and never miss a cartridge change, check out RTI Aquantix.

STEP 5: DEVELOP A TESTING SCHEDULING

Water quality changes over time so re-test water at drinking and cooking taps periodically to make sure your management practices are effective and water in your facility continues to be lead free. Consider the following:

• Sample frequency: The sampling frequency for your facility will depend on a variety of factors, including water quality, your building’s plumbing, recent renovations, whether there has been a change in your water source or source water treatment, your initial lead results, and available resources. Especially for buildings with one or more taps with prior lead levels at or above 10 parts per billion, re-testing those taps every 3 years would be prudent.
• Planning: Make sure to document the chosen sampling frequency so designated staff can plan to sample according to the schedule.
• Testing: Schools and child care centers can complete follow-up water testing through the Clean Water for US Kids program. You can also check with your local water utility or local laboratories, but make sure to follow the 3Ts sampling protocol by the US Environmental Protection Agency.
STEP 6: DESIGNATE STAFF FOR KEY ROLES

Clearly define roles and responsibilities for each of the steps above to maintain drinking water quality throughout the building. We include a chart template for identifying the key roles and assigning staff below.

• Assign: Choose a responsible person for educating staff and students on proper tap usage, performing regular upkeep of signage at taps, carrying out the flushing routine, checking water filters throughout the building, ordering and installing new filter cartridges, scheduling routine water testing, and communicating updates with the school or center community.

STEP 7: MAINTAIN RECORDS

Keep: Record maintenance activities scheduled or completed for accountability and to demonstrate the actions you are taking to keep drinking and cooking water safe in your building. See an example of a simple tracking template below.

ADDITIONAL RESOURCES

Check out our other Get the Lead Out flyers
- EPA’s best practices for drinking water management in schools
- EPA’s Healthy Schools website
- Resources from EPA’s 3Ts (Training, Testing, and Taking Action) for reducing lead in drinking water:
  - Interactive plan builder and template
  - Guidance on Establishing Routine Practices
  - Guidance on Assigning Roles
  - Flushing best practices
  - Lead sample collection guide
- Resources from the Clean Water for US Kids Program:
  - Instructional videos
  - How to sample for lead in drinking water
  - No-cost and low-cost solutions to lead in drinking water
  - How to choose a water filter to remove lead
  - How to identify a lead service line
  - How to select a lead-free faucet

CONTACT

Clean Classrooms for US Kids
https://www.cleanwaterforuskids.org/en/carolina/
cleanwater@rti.org
1-855-997-2864
RTI International
3040 E. Cornwallis Road, P.O. Box 12194
Research Triangle Park, NC 27709-2194 USA

DEFINING KEY ROLES TEMPLATE

<table>
<thead>
<tr>
<th>Task:</th>
<th>Lead:</th>
<th>Backup:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sign upkeep to ensure signs are affixed to appropriate taps and clearly visible to staff and students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flushing to ensure taps are flushed according to the designated facility flush schedule.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter maintenance to check filter status and purchase and replace filter cartridges.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accountability champion ensures team members are following management plan activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Task</td>
<td>Check signage</td>
<td>Flush taps</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Recommended frequency</td>
<td>At the start of every semester</td>
<td>After all school holidays and summer break</td>
</tr>
<tr>
<td>Date</td>
<td>Responsible individual</td>
<td>Date</td>
</tr>
<tr>
<td>Maintenance log</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>