



# Teaching the Tap

## Why America's Schools Need Funding for Water



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### Introduction

In years past, children coming off the school playground would run inside to line up in front of a drinking fountain. Today, many students are flocking to vending machines instead, where they shell out money to buy water in plastic bottles. Meanwhile, school water fountains are now often broken or shut off.

This trend in schools mirrors a broader trend: As municipal water systems in the United States, built many years ago, are aging and in need of renovation, the bottled water industry is using glitzy corporate marketing campaigns to convince American consumers that packaged water is superior to water that comes out of the tap. Today, as more people are buying water out of plastic bottles, tap water infrastructure is falling into disrepair, and public sources of drinking water are disappearing.

But bottled water is not a replacement for municipal tap water, especially in schools. It is expensive, energy-intensive, environmentally damaging and creates mountains of plastic waste. Children, the most impressionable consumers, should not learn that bottled water is a substitute for tap

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water. Unfortunately, many students today go to school in an environment that is not conducive to drinking tap water and are surrounded by messages encouraging them to drink bottled water instead — whether because of legitimate safety concerns, lack of access to appealing tap water sources, sales of bottled water in schools, or marketing from the companies that sell the product.

To reverse this trend, schools must be able to provide safe, accessible tap water for all students. There are many steps that individual schools can take to achieve these goals, but they all require funding. Cash-strapped schools with many competing priorities need incentive to teach the tap — which is why America's schools need funding for water.

## Providing tap water in schools

All schools need to supply safe water for drinking, cleaning and cooking school lunches. Typically, this water comes from a tap, although bottled water is sometimes provided to students and staff temporarily if the tap water is shut off due to technical difficulties. Unfortunately, in some schools, bottled water has become a permanent fixture: In 2007, the Baltimore school system decided to shut off its drinking fountains and provide bottled water for its students instead.<sup>1</sup> Some students in California schools are drinking bottles of water on a daily basis because the local water supply is contaminated with nitrates, likely from local farms and other sources.<sup>2</sup> While not all schools in the country face such serious tap water problems, many schools need to improve their water infrastructure in order to supply safe tap water for their students.

Today, about 90 percent of schools in the United States get their water from municipal water systems; the rest get water from their own wells.<sup>3</sup> The U.S. Environmental Protection Agency (EPA), through its authority under the Safe Drinking Water Act, requires that all water systems test their water regularly for a number of contaminants and sets standards to protect the public health from potential water-borne threats.<sup>4</sup>

When schools get their water from a municipal supply, testing for contamination happens at the municipal level, before the water is distributed to schools and other buildings. Schools that supply their own water are considered public water systems and are required to test their water regularly and meet federal drinking water standards.<sup>5</sup> It is especially important that water in schools meet these standards because children are more easily harmed by these dangers than adults.<sup>6</sup>

Since a majority of schools get their water from municipal water systems, the status of the municipal water supply can influence the safety of drinking water in many schools. Without proper maintenance, or even in the course of normal operations, municipal water systems can fail. This can cause water outages or boil advisories during which schools may close early or temporarily provide bottled water for students and staff.

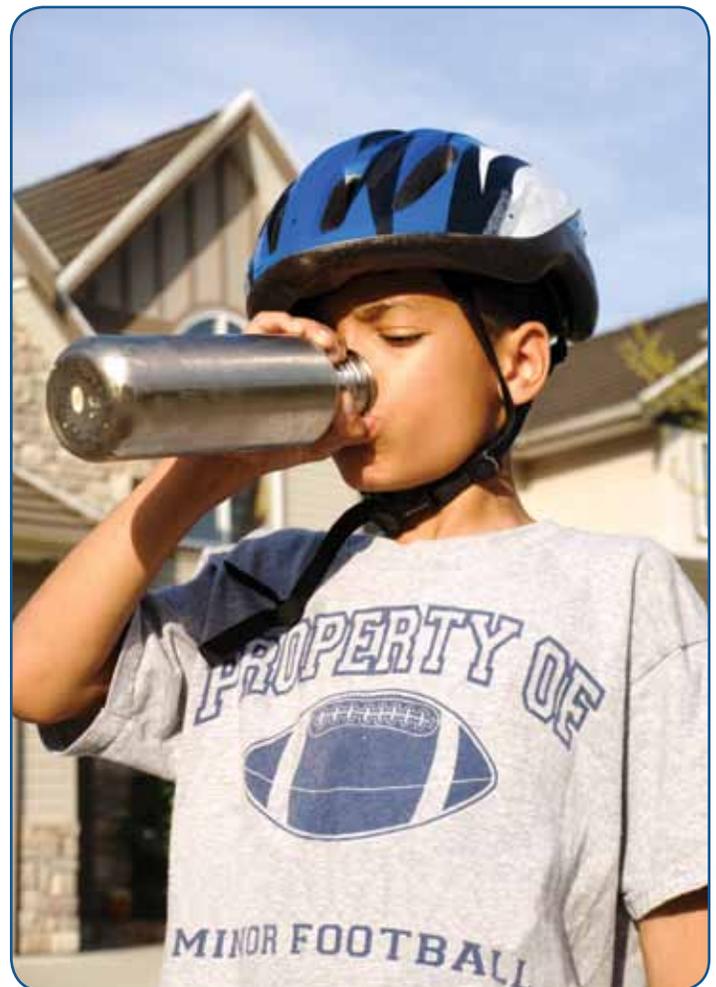
Investing in water infrastructure at the municipal level can prevent many water problems that affect school drinking water. This is especially important today, as many water systems are aging and in need of repair. However, keeping tap water running in schools cannot just be achieved by addressing problems at the municipal level, because many schools provide their own water, and even schools that use municipal supplies can have water safety problems if the water gets contaminated between the point of delivery and the time it comes out of the tap.

## School tap water problems

In September 2009, the Associated Press reported that over the previous 10 years, thousands of schools in the United States had problems with their drinking water.<sup>7</sup> According to the investigation by the Associated Press, of the 8 to 11 percent of schools that draw their water from their own wells, about one out of five violated the Safe Drinking Water Act during the time period studied.<sup>8</sup> The most commonly found contaminant was coliform bacteria, followed by lead and copper, arsenic, and nitrates.<sup>9</sup>

Schools that are on municipal water systems have had contamination problems, too. Even if the municipal water system itself does not violate drinking water standards, dangerous substances from the building's plumbing can enter the water. One of the main contaminants of concern from these sources is lead — a substance associated with impaired mental function and development in children.<sup>10</sup>

Drinking water can become contaminated by coming into contact with fixtures in the plumbing and delivery mechanisms that contain lead. For example, bubblers in water fountains and linings of school water coolers have been sources of lead contamination.<sup>11</sup> The pipes in the schools themselves,



especially in old buildings, can also be sources of lead.<sup>12</sup> Water is even more likely to pick up lead if it sits still in pipes for long periods of time, such as when the water is not being used. This happens frequently in buildings such as schools that close for long periods such as weekends or holidays.<sup>13</sup> Researchers have found that school drinking water in at least 38 states and the District of Columbia have been affected by lead and say there is no reason to believe that lead problems do not exist in other states where cases have not yet been documented.<sup>14</sup>

While many schools have had tap water safety problems, these types of concerns may be even more prevalent than they seem because school drinking water is inadequately regulated. Even though schools that draw their own water are required to report their testing results, the EPA does not specifically monitor the school data. Errors plague the agency's database, which can lead to unreliable enforcement of drinking water quality laws.<sup>15</sup> There is even less federal oversight in schools that get their water from municipal water systems, because these individual schools are not required by the federal government to test their own water and report the results on a regular basis.<sup>16</sup>

Often, in situations where school drinking water may be contaminated, concerned parents prod administrators into taking action. The Los Angeles Unified School District first learned about lead problems in 1988, but did not officially notify parents or address the problem until 20 years later, in 2008, when a concerned parent teamed up with the local media to highlight the problem through an undercover investigation.<sup>17</sup> Washington D.C.'s public school system learned of lead problems in 1987, but initially said it was not a health hazard. After years of controversy, tests in 2006 showed contamination in 12 out of 16 schools sampled, which eventually led to a new round of testing and finally remediation through installing filters on fountains in 2009.<sup>18</sup> In December of 2003, two fathers of students tested school fountains and brought lead problems to light in a Seattle elementary school. In April 2004, the Seattle Public School district found that 70 percent of its schools had at least one fountain with excessive levels of lead, and public outcry convinced the school board to create a new district-wide policy for testing and remediation.<sup>19</sup>

Given the many competing funding priorities facing schools, it is not surprising that it often takes efforts by parents to bring these problems to the forefront. It can take a lot of money to fix tap water problems. According to Marc Edwards, a water quality expert at Virginia Tech, it can take \$30 to test a tap and \$500 to remediate a tap that has lead problems, although these costs can vary.<sup>20</sup> The Baltimore school system, after six years of trying to fix its lead problems, decided to spend \$675,000 a year on bottled water instead, because it seemed more cost-effective.<sup>21</sup> Faced with high costs, schools may lack financial resources to take action to keep their water properly maintained.

## Providing accessible, appealing water in schools

Serious drinking water safety violations may affect a relatively small portion of the schools in the country.<sup>22</sup> But even in schools with safe tap water, students may bring bottled water to school simply because it seems more appealing or convenient than the available tap water.

For example, according to the California Food Policy Advocates and a survey by Project LEAN, a program run by the California Department of Health and Public Health Institute, many students in California schools do not think their drinking fountains are attractive sources of water.<sup>23</sup> This can encourage students to drink bottled water instead. Also, students simply may not have access to school drinking fountains.<sup>24</sup> For example, state regulations in California require that every school provide one water fountain for every 150 students, but they do not specify that these fountains be located in areas where students are most likely to want access to water for drinking, such as school cafeterias.<sup>25</sup>

Some schools are already coming up with new ways to promote tap water. According to California Food Policy Advocates, Los Angeles County offered filtered, chilled tap water in school cafeterias; a school in Oakland, California, installed a hydration station close to the cafeteria, playground and commonly used school entrance; the Berkeley Unified School District began providing tap water in school eating areas; and in 2007, New York's Departments of Education and Health and Mental Hygiene installed water jets in five school cafeterias, and initial survey results showed that up to 90 percent of students used them during lunch.<sup>26</sup>





## The lure of bottled water

Without these sorts of efforts by schools to provide tap water, students may buy into the idea that bottled water is safer or better than tap water — a message that is reinforced by bottled water sales in schools and the efforts of the bottled water industry to target schools and children.

Since the 1990s, beverage companies such as Coca-Cola and Pepsi have offered cash-strapped schools corporate sponsorship in exchange for the exclusive right to sell their brands in school vending machines or opportunities to advertise their products at school events.<sup>27</sup> Research shows that children develop brand loyalties at an early age,<sup>28</sup> which means that soft drink companies that sell their beverages in schools may keep customers well into adulthood. Although such deals have generated controversy, many school principals today see the revenues from these products as an important source of money to fund other school programs. Now, nearly 90 percent of schools are selling snacks and bottled beverages in vending machines, a la carte lines or school stores, often producing substantial revenue.<sup>29</sup>

Today, bottled water is one of the most commonly sold products in schools. According to the U.S. Government Accountability Office, water was available for sale in at least half of elementary, middle and high schools that offered venues such as a la carte lines, vending machines and school stores in the

2003–2004 school year.<sup>30</sup> In a survey of secondary schools in 2006, the Center for Disease Control and Prevention found that in 34 out of 36 states and 11 out of 12 urban school districts surveyed, bottled water was the most common item available for sale in school vending machines, stores, canteens and snack bars.<sup>31</sup> In the typical state surveyed, bottled water was sold in 80 percent of schools, while in the typical urban school district, it was sold in 75 percent of schools.<sup>32</sup>

Individual beverage companies may also offer funding incentives to drink bottled water. Nestlé Waters North America, the biggest water bottler in the country, offers the opportunity to win rewards for schools, including new fitness gear, by drinking bottled water through its Go Play! program.<sup>33</sup> It also sponsors a teacher education program called Project W.E.T.<sup>34</sup>

While children are surrounded by bottled water sales in their schools, they are also exposed to marketing specifically designed to convince them that bottled water is a good beverage choice. According to the Beverage Marketing Corporation, some companies tried to sell water in drink box packaging to appeal to moms with school-age children, although this failed because most of the large beverage companies had already introduced 8-ounce packages to appeal to this market.<sup>35</sup> Nestlé Waters North America, meanwhile, has designed a specially shaped water bottle to appeal to children, which it calls its “Aquapod.” It says that its 11-ounce package is a “fun round shape kids won’t want to put down.”<sup>36</sup>

## Teaching the tap

Research shows that the school environment plays an important role in shaping the health behaviors of children.<sup>37</sup> Adequate water consumption is an important health behavior for children and the school environment should promote it. However, the proliferation of bottled water in schools sends the wrong message to our children. Schools should be promoting safe and readily accessible public drinking water, because it is the most sustainable and cost-effective source of water.

Children should know that compared to tap water, bottled water is expensive, energy-intensive and environmentally damaging. Bottled water costs hundreds to thousands of times as much as tap water,<sup>38</sup> which is a special concern in schools, where access to water should not be determined by a child's ability to pay. Producing bottled water takes up to 2,000 times the amount of energy needed to produce tap water.<sup>39</sup> Even a study commissioned by Nestlé Waters North America found that bottled water's impacts on the planet in terms of carbon production and water use are higher than those of tap water.<sup>40</sup> The industry creates mountains of plastic waste: 75 percent of the plastic bottles used end up in landfills without being recycled.<sup>41</sup> Perhaps most ironically,

the production of bottled water wastes water — it takes three liters of water to produce every liter of bottled water.<sup>42</sup>

In some cases, bottled water may be a temporary fix to address a legitimate safety concern, but it is not a permanent solution. In fact, overreliance on the product can undermine the incentive to fix the underlying problems with tap water and can foster distrust of tap water in students and staff at schools.

## Renewing America's Water in Schools

Schools can take many steps to both ensure that their water is safe and accessible and encourage students to take back the tap. These steps include testing water regularly for contamination, repairing or retrofitting water fountains, remediating lead or copper problems, and supplying new sources of free tap water in convenient locations. But all of these actions require funding — a resource that many schools today may find in short supply.

Keeping tap water safe and running in schools is an important part of Food & Water Watch's efforts to renew America's water. Legislation to renew America's water would provide a dedicated source of federal funding to address water infrastructure issues on a national level. A large portion of that funding would go toward municipal water systems that are aging and need repair. This would provide the needed resources to keep water systems functioning, while preventing water and sewer rate hikes and creating jobs. These investments at a municipal level can help prevent water outages or boil advisories that can affect schools that get their water from municipal systems.

But not all school drinking water problems can be addressed at a municipal level. That is why legislation to renew America's water also includes a grant program for individual schools to cover the costs of tap water improvements. If passed, this program, administered through the EPA, would allow schools to apply for funds to cover 100 percent of the capital costs for drinking water infrastructure improvements, including water testing, fountain repair or installing filling stations.

## Conclusion

All children should have access to safe tap water in their schools. Today, many schools are struggling to provide this service and may be tempted to rely on bottled water or sell water to generate revenues instead. But bottled water is not a sustainable source of water, and neglecting tap water in schools sends the wrong message to our children. That is why federal programs designed to renew America's water should not only improve municipal water systems, but also assist individual schools with providing safe tap water for their students by giving funds to test and improve school drinking water.



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**About Food & Water Watch:** Food & Water Watch is a nonprofit consumer organization that works to ensure clean water and safe food. Food & Water Watch works with grassroots organizations around the world to create an economically and environmentally viable future. Through research, public and policymaker education, media and lobbying, we advocate policies that guarantee safe, wholesome food produced in a humane and sustainable manner, and public, rather than private, control of water resources including oceans, rivers and groundwater.

