

# STUDENT RESEARCH REPORT: Third Water Fountain Audit & Students' Perception of Campus Water Fountains

Results of Team Marine survey at Santa Monica High School show 84.5% of water fountains overflow, leak, malfunction, or are completely broken, while student perception of fountains is dismal.

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SANTA MONICA, Apr. 22 — Over the past several weeks, Team Marine has conducted a survey of all 71 water fountains at Santa Monica High School to determine how many of them function and to assess their cleanliness. The survey found that 84.5% of water fountains either overflow the basin, dispense an undrinkable trickle, or are broken entirely. 8.5% dispense no water and 76% were marked as containing debris, dirt, or trash. Overall, broken and dirty water fountains impede access to clean, free, drinking water and cultivates a costly dependence on vending machine beverages packaged in single-use plastic containers.

Water fountains were surveyed using a student-designed system, which included an evaluation card for each water fountain on campus. The following codes were used: W (Working), B (Broken), O (Overflow), L (Low Flow), LP (Low Pressure), and D (Dirty). See the figure on the right for the classification system used.

TEAM MARINE WATER FOUNTAIN SURVEY  
SANTA MONICA HIGH SCHOOL

Date: 10/1/15 Time: 4:10  
Building: History Floor 0 Number in group 2  
Description of location: North west basement

Codes:

<input type="checkbox"/> B BROKEN	<input checked="" type="checkbox"/> LP LOW PRESSURE
<input checked="" type="checkbox"/> L LOW FLOW	<input checked="" type="checkbox"/> D DIRTY
<input type="checkbox"/> O OVERFLOW	
<input type="checkbox"/> W WORKING	

Team Marine members additionally surveyed 617 Samohi students to gain insight into their thoughts about the water fountains. 75% of surveyed students reported that they did not like drinking from campus water fountains and only 60% said they actually use them. See a sample survey below.

How many times a week do you use Samohi's water fountains? (circle one)  
0 (1-2) 3-4 5-6 7+

Do you like drinking out of Samohi's water fountains? (circle one)  
YES NO

Why or why not?  
Rust on sinks. Also trash in it

What adjective would you use to describe Samohi's water fountains?  
Nasty

In addition to generating excessive single-use plastic waste, the lack of functioning water fountains makes it hard to refill reusable water bottles, which survey results show are now brought five times a week to school by 42.3% of students. If students cannot refill

reusable water bottles because the drinking fountains are unclean, broken or difficult to drink from, many will continue to consume plastic bottled water or other sugary and unhealthy beverages.

The results of the current study are similar to two previous audits that were conducted by Team Marine in 2011 and 2013. The 2011 study showed that 25% of water fountains were completely broken. While the recent number of completely broken fountains has decreased to 8.5%, the number of malfunctioning fountains has increased from 2013's previous audit, from 58% to 76%. In summary, 84.5% of current fountains are defective or not working properly. As one student explained, "For many of the fountains, you'd actually have to latch on to get a drink."

Functioning water fountains were a portion of the class-action lawsuit *Williams v. California* in 2000, when the State of California was sued over issues involving insufficient school facilities and textbooks. In the settlement, the state dedicated \$1 billion to improve school facilities. If funds are available from state or local sources, students at Santa Monica High School would benefit greatly from well-maintained water fountains – or even better, from more reusable bottle fill stations such as those newly installed in the Innovation Building.



Innovation Building  
Water Bottle Fillers

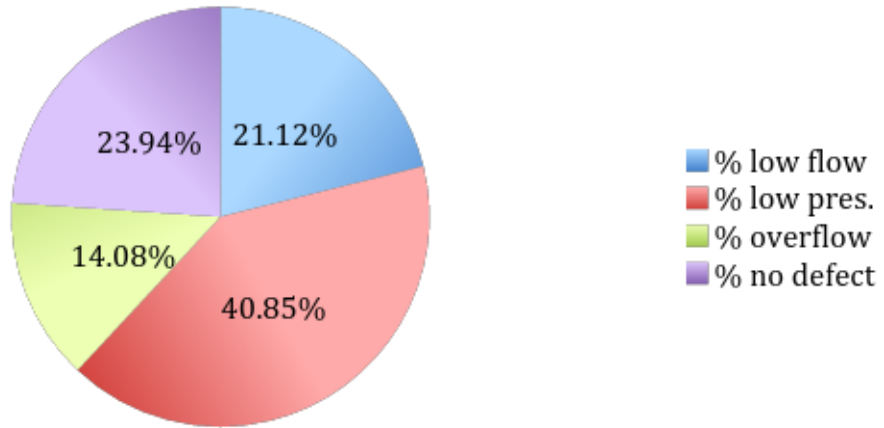
The average American consumes 167 plastic bottles per year, and inevitably, some of these bottles end up in the ocean causing harm to marine life. Plastics photodegrade into smaller pieces in seawater, which are then mistaken as natural food by marine organisms. Other problems include entanglement and the biomagnification of toxic chemicals that cling to plastics. As a result of human pollution, there are currently vast garbage patches in each major ocean gyre, and 80-95% of the refuse in these patches is plastic.

Team Marine is an organization at Santa Monica High School dedicated to sound research science and environmental advocacy. Founded in 2006 by Marine Biology students and their instructor Benjamin Kay, Team Marine has been involved in science fairs and competitions, participated in lobbying the local and State government on legislation to reduce plastic pollution, and featured in national and international news media as a result of their projects. For more information, please visit [www.teammarine.org](http://www.teammarine.org).

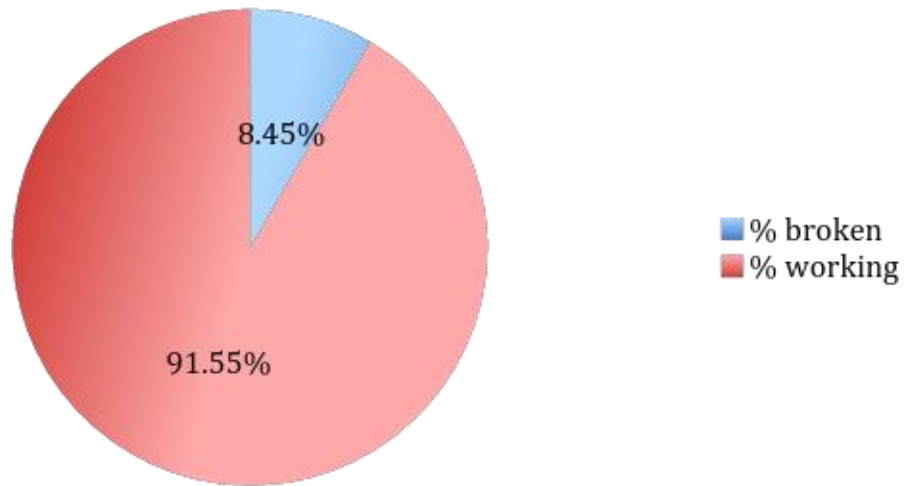
See pages below for the full results of the survey. If you have any questions or would like further information, please contact students Hannah Persinko at [hpersinko@gmail.com](mailto:hpersinko@gmail.com), Valerie Yong at [yngvalerie@gmail.com](mailto:yngvalerie@gmail.com), Zoe Parcels at [zoejohanna@gmail.com](mailto:zoejohanna@gmail.com) or advisor Benjamin Kay at [bkay@smmusd.org](mailto:bkay@smmusd.org).

Audit Results:

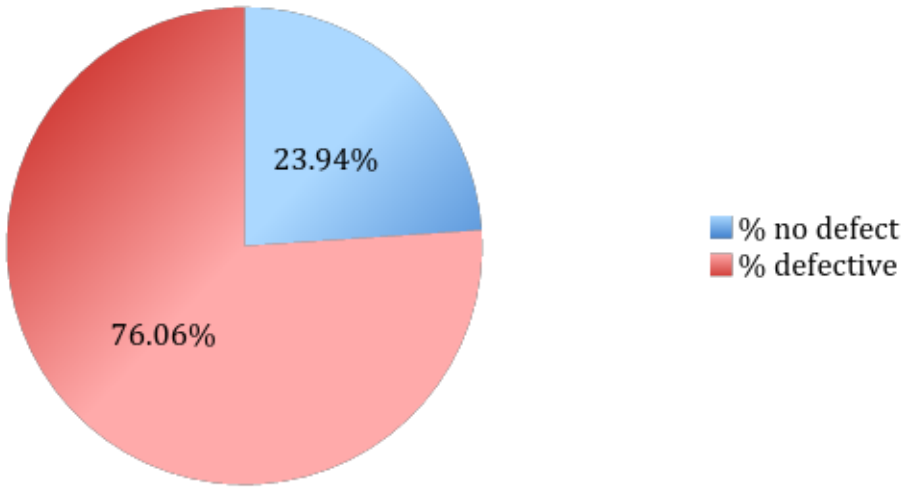
### Condition of Working Water Fountains



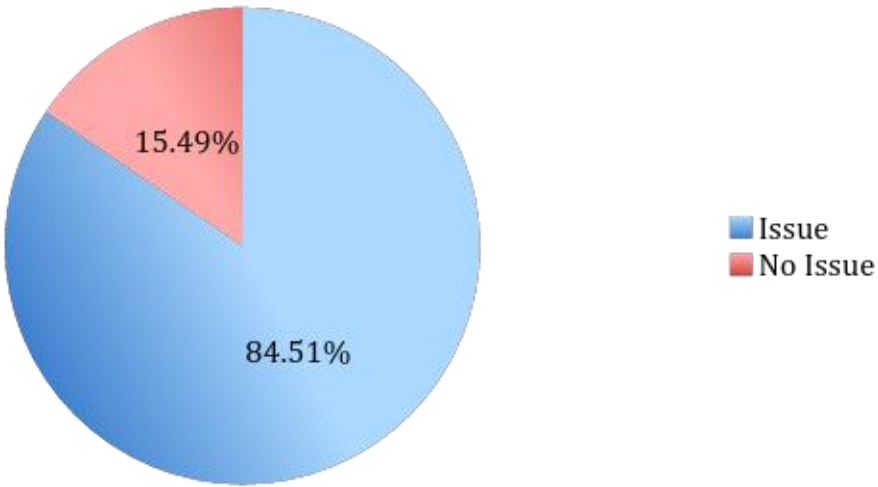
### Working vs. Broken



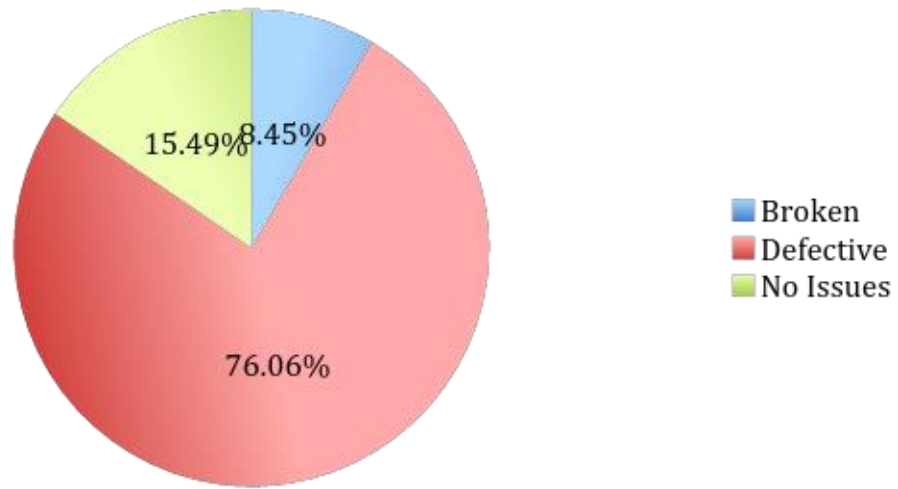
# Defective Water Fountains



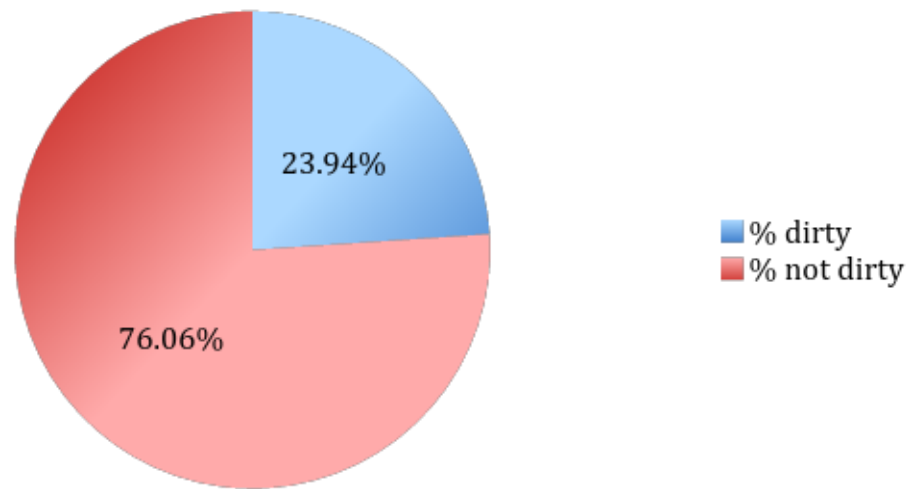
# Issue vs. No Issue



## Broken & Defective



## Cleanliness



## Survey Results:

