Kenosha , WI

THE PLUNGE

Jan. 10. 2013

A river, polluted to almost no chance of rescue is home to these desperately poor natives of India. These natives have no choice but to use the river for their source of water, drinking, bathing, everything.

Crystal clear springs pound down on rocks in a secluded spot in Montana, in the United States. Scientist report even this water is plagued with pollutants and is dangerous.

A new shower head is released from another water realated company, this one focused on "complete relaxation" that uses five times more water then the showers a decade ago.

A Plague on Prosperity

Over usage in Water has appeared when we finally have enough.

By: Kimberly Lince

The families of Harborside Academies Sophomore, have taken on a noble cause; the water crisis of the twenty-first century. During the week of December, 8th through the 13th of the year 2013, they will be determining the average of water used by those who have a plentiful access. By deciphering how much each of them use per minute, per day, per week, they are making ground breaking news. Families all over the province of Kenosha Wisconsin are gathered in this revered charter school, and recording the numerous times when water is splurged, such as when their bowel movement must be disposed of.

When the honorable sophomores were sent to explore the causes of water, they and their teachers felt like they needed to do more. The idea of examining the usage of water in their humble town arose from a math teacher known as Mr. Barnhart. Though the thoughts behind his actions are unknown, he put into play the experiment that perhaps could make a difference in this world.

"An American taking a five-minute shower uses more water than the average person in a developing country slum uses for an entire day."

This quote is stating the so-called "elephant in the room". How can U.S.A. citizens continue to live in the ignorant bliss (much like a hot shower), that surrounds them? Everyday in America families use ample gallons of water without a second thought, whereas around the world some families are begging for a bucket of filthy polluted water. It amazes some how in America the citizens are rich with water, but do not do anything about those who have nothing.

Overall in wager usage we each column consists of the same amount of water usage. By teeth brushing, and by baths, at the end of the week they end up making almost the same amount of water. It can be astounding to think that every minute the average person is using 3 cups of water, how wasteful it must sound. Then when it is thought about how these results only conclude the amount of water used in personal hygiene. Imagine how much more is used by water gardens, washing cars, taking care of pets, etc. The sheer gallon that America is using almost has served to terrify some when thought about. Water is not a renewable source, so when it is run out, it's run out and we can not find anymore. People are constantly using this precious resource by the hundreds even thousands of gallons, without pausing for a breath they plow through wasting tons of gallons of water.

"The United Nations say that a human being needs 50 litres of water per day in order to prepare meals and to have enough for personal hygiene. 50 litres of water per day are necessary in order to avoid diseases and to retain efficiency.

However, many humans in Africa must get along with 20 litres water per day."

The average amount of liters used per day by Americans is 264 Lt. This means that we are using more then enough water for what 13 people in Africa have to use per day.

And we are using over 200 gallons more then we need to use to survive. This shows how much man has changed over the ages, and yet some can't help but wonder if this is for good. Perhaps there are ways to change their thoughts. To show people that they only need to use what they need, and saving the rest for our natural world and those who need it. Like the quote stated, many people in Africa do not have what they need to adequately survive. By the study Harborside did, it showed how we have ample to spare, perhaps if we cut down just a bit then that extra could be given to those who need it. Or simply returned back to our earth and the animals who live on it.

There are many ways that an average family can conserve water, most of these include simply being aware of how much is being used and turning off the flow of water when possible. Such as while brushing your teeth, or while taking a shower; turn it on before and after brushing or soaping up, but avoid running it needlessly in-between. Our modern day conveniences also tend to suck up a great deal of water, which can be put to better use. When using a dishwasher or clothes washing machine, use it as seldom as possible working out with your family or living partners so that all of the dirty articles can be washed as once, so as to save needless washes.

"The average American family uses more than 300 gallons of water per day at home. Roughly 70 percent of this use occurs indoors."

Almost 349 gallons were used per day in each Harborside families. This number is about accurate with the quote, however the number in Harborside is higher then others in America. Perhaps this is because of our schools location, right next to the Great Lakes, since we have a plentiful amount of water. Or perhaps it is because of the cold in this wintery state, as people seek for ways to warm up, by the use of hot baths or showers and cooking hot meals or drinks.

Everyday, a single American uses more water then ten people in Africa would use. One would think, this could prove how America has become vastly unaware of the global crisis of water issues. A normal American will wake up in the morning and proceed to take a shower, brush their teeth and eat breakfast that means more then 11 gallons already used before a person steps out the door. Luxury is enticing, and it is a wonderful thing to be able to receive clear, cold water in a matter of seconds. A luxury, in which many can not even dream of, those who are forced to walk for hours to dip their rusted buckets into a polluted lake where donkeys bray and women wash clothes. It is simple enough to criticize others on their dastardly deeds, but when the time comes, would you be the one to decide not to take a warm bath on a frigid evening? Or turn away from taking that blessed shower every day? It is a difficult choice, and one that is to not be chosen lightly. However, if anyone can spare a drop that is one more that will be left for another.

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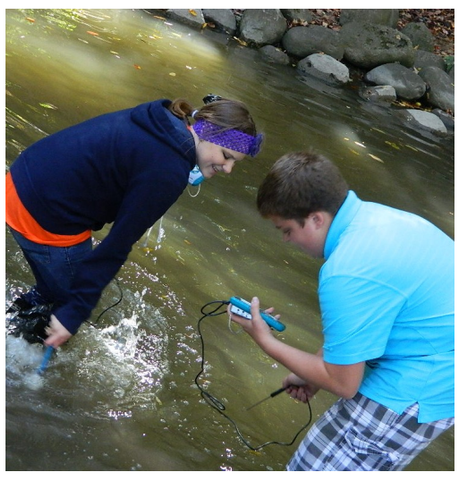
Harborside sophomores testing of the Pike River

By: Brody Cornell

The Pike River is the Root Pike watershed's largest river. It runs through Petrifying Springs Park in Kenosha, Wisconsin. There sophomores at Harborside Academy conducted a series of test on the Pike river to see if it was healthy. The students of Mr. Gransee's Chemistry class each were spilt into groups and set to work to test the water quality of the Pike River. Each group found a different test on the water quality of the Pike River.



Sophomores Delaney Goriup and Ethan Van Pamel test the Pike River for temperature as they wade in the water.

The students found 8 tests temperature, ph, dissolved oxygen, turbidity, biotic index, habitat, stream flow, and nitrate.

Temperature is a test of how hot or cold the water. The students found that the water is 11.9 degrees C (53 degrees F).

Ph is the measure of acids in the water. A good ph balance is usually 7 and the river got 7.72 when it was tested. Dissolved oxygen is the measure of oxygen that has dissolved in the water and the river got and 8. Turbidity is the measure of clarity of the water. The Pike River received a 24 NTU. concluded that the

The biotic index is judging the healthiness based on the organisms that live in the water. The biotic index received a 2.4. Habitat was seeing if the river was in a healthy environment and it got a 33.5 when the river was tested. Stream flow is the measure of how fast or slow the river is moving and the river got 13.60 cubic feet per second. Nitrate is the measure of nitrates in the water. The river got a 3mg/l on the test.

Based on the information found Harborside students students concluded that the river was healthy. It passed most of its test. Some factors that could have contributed to the results of the test that failed was the area around the river had been altered by humans so much it could cause bad runoff, and put more pollutants in the water. Some things that could be done to maintain or improve the health of the river is to regularly test the river to make sure that the river is healthy. Another way to improve or maintain the health of the Pike River is to clean the area around the river to keep any trash or pollutants from getting into the river.

Latest test on the Pike River

By: Jovan Richards

My class (mr.gransee's chemistry block 4) researched on the Pike River and it's measurements of the basis. The Pike River is located in Pets park of Kenosha, WI. We tested at the park on October 8th earlier this year for humidity, turbidity, temperature, dissolved oxygen clarifying, and habitat for the Pike River.

Sophomores from Harborside academy (Angelica Kisel and Marco Diaz), consult their chemistry teacher (Mr. Gransee) while testing the Pike River.

We tested at the park on October 8th earlier this year for humidity, turbidity, temperature, dissolved oxygen clarifying, and habitat for the Pike River. This park is incorporated with families and creatures that benefit from the river. We also tested on the weather for the previous and oncoming day, and also for the flow of the water's current.

Dissolved Oxygen measures how healthy the river's water is for inhabitants to use. How pure the water is a great concern to plant and animal lfie. It's very important since it affects small and large amounts of fish. The healthy measurements for dissolved oxygen would be 7.5 mg/L. The unhealthy measurements for dissolved oxygen would be from 10 mg/L and above. If oxygen levels are very high in the water, then the small fish wouldn't have enough circulation through it's gills. If the oxygen levels are to low, then the large fish wouldn't be able to survive in the water(such as shark and whales).

Stream flow is the testing of the chemical product of the river. The species involved with the water are an affect to stream flow and depend on a specific flow. Repetitive rain water is the cause of faster runoffs for a stream. In the Pike River, there isn't much of an incline or decline.

LOCAL NEWS

Two children, Andrea and Katelyn Middleton, splash around in their hose to ward off the summer heat. Statistics show that over 20 gallons of water are used in this frivolity, that's more then some people in Africa will receive in one day.

Why should I worry?

Thousands of America take water for granted everyday, but will they be able to continue to do so?

By: Jovan Richards

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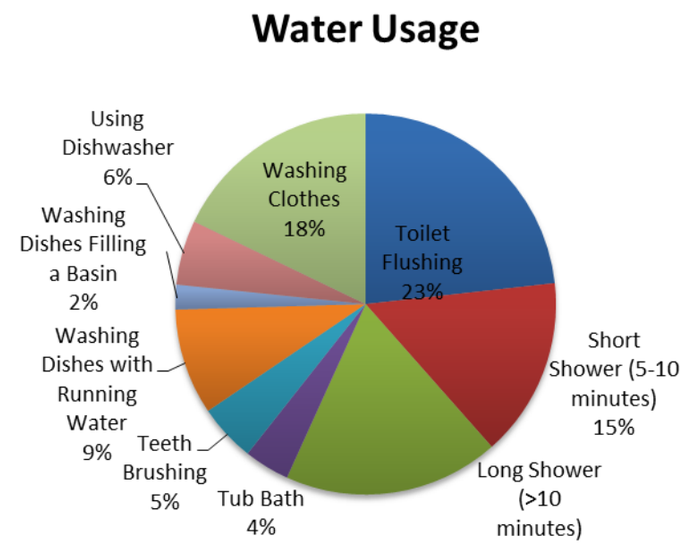
An Everyday Sample of Water.



This graph states the common usage of house hold water indoors that are used on a relatively daily basis.

At Harborside Academy the entire sophomore class was asked to monitor their water usage in one school week. On December 9th – the 14th students were asked to take home a recording sheet to record their data. It was sorted out into 9 categories. Each time a student's family member did one of these things the student was to keep a tally of how much during the day. At the end of the week the student's added it all up for their grand total for the week. Then the data was pulled together for a grand total of the whole class. More work was also done with the student's grand total.

In the world today water has become an issue. In America most people just turn the faucet on and expect it to be there. These students recorded this data and saw how they compared with each other as well as water scarce areas of the world. This experiment was conducted to see how much the average American family uses a day and in a week. Also it was conducted to see how they differed with other places that might not have water.

In total all 84 families in the Harborside Academy sophomore class used 131,840 gallons in one week. The total of gallons per family per week was 2441.48 gallons. The amount of gallons used per person per week was 488.29 gallons. The amount of cups used per minute was 0.77 cups. During the week the families of the sophomores averaged 346.39 gallons toilet flushing, 226.96 gallons while taking a short shower, 272.91 gallons while taking a long shower, 57.57 gallons while taking a bath, 72.73 gallons while brushing their teeth, 134.28 gallons while washing dishes with running water, 31.30 while washing dishes while filling a basin, 81.90 gallons while using the dishwasher, and 266.19 gallons while washing clothes. Information is put into the graph

Gushing water fills up the awaiting cup of local citizen Jennet Burrow, "I've never really thought about the water I use as long as I can pay the bills," she shrugs. "Since I always have it there, it doesn't really matter."

The Health of our River; the Pike.

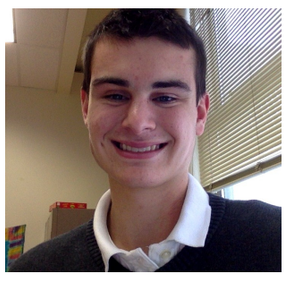
The Pike River, as it winds through Petrified Springs Park, shivers as ice starts to freeze it's edges. It is a main attraction for many nature lovers.

By: Kimberly Lince

The Pike River has a relatively small watershed, most of which is humanized with a few secluded areas of forest and wetlands. One of these is Petrified Springs Park, located in Kenosha, Wisconsin; this particular site underwent testing on October 7th, 2013. The sun was shining, though clouds were scattered across the sky, with a slight chilling wind. It was 13.89°C out when we conducted a series of tests on the river. My team specialized in determining the D.O. (Dissolved Oxygen) of this river while the others performed tests on Temperature, pH, Turbidity, Biotic Index, Habitat, Stream Flow, and Nitrates.

D.O. is where the amount of oxygen dissolved in the water is measured. This test is the most important, because without oxygen in the water, nothing can survive. The measuring of this test is found through temperature, which is critical as well. The D.O. was at about 75% (out of 100%), which was fair. The temperature was at 11.9 °C, which would rate (from the scale 1-10) a 6. We also performed the pH test, which is how acidic the water is, and we found that it was almost perfect, rating at about 7. Turbidity shows how clear or opaque the water is; our river received the rating of 31ntu which is fairly good. Our next test; biotic index had similar results of around 2.6, which is also fairly well. Habitat (which measures the health of the habitat surrounding the river) was at an average of 30, which is ok, but not as good as it should have been being a nature reserve. The stream flow which is 16.80 cubic feet per second, is right between fair and good, seeing how the stream was moving at a relatively well pace. The nitrate testing, measuring nitrates, was 13.3 milligrams per liter of nitrates, which was slightly higher then it should have been.

Based on the information that we found, the results show that the Pike River is healthy, though always leaving room for improvement. Some aspects that proved against their results were humanization and the way they have impacted the river and it's surrounding habitats. The pollutants that have entered the water has twisted some of the nitrates and such, where as it seem to have little effect on the pH. There will always be ways in which to heal the river, improving it and helping it to reach it's former glory.

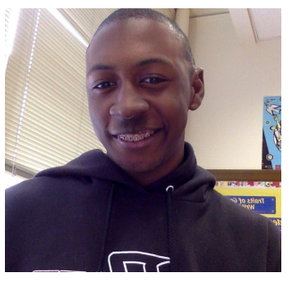


"Water is so important today, but I haven't really thought about just how much it can effect us."

-Brody Cornell

"I believe that water is precious, but I never realized just how in need so many countries are."

-Kimmie Lince



"In my opinion water can either save the world or destroy it. I don't know what will happen."

-Jovan Richards