Abstract

Water is important because we use it for our everyday use, whether it’s for drinking, bathing, or for our enjoyment. Pollution causes the environment to have a harmful effect, which is usually caused by microorganisms (bacteria). Some of those Bacteria’s include E. coli and Total Coliform. They’re mainly found in the intestines of humans, in animals, in water, and also found in the soil. Most of these bacteria are harmless but it can provide you with symptoms of diarrhea, vomiting, and stomach cramps. When water comes in contact with feces the water is contaminated. There was a total of 256 samples of E. Coli and Total Coliform that was measured in CFU/100 mL (Colony Forming Unit). Samples came from the S44 West location at Coastal Carolina University. From 2011-2020 the number of E. Coli and Total Coliform increased compared to the standards and averages.

Methods & Materials

There was a total of 256 samples of E. Coli and Total Coliform that was measured in CFU/100 mL (Colony Forming Unit). Samples came from the S44 West location at Coastal Carolina University. From 2011-2020 the number of E. Coli and Total Coliform increased compared to the standards and averages. When water comes in contact with feces the water is contaminated. Water samples can be collected, analyzed, stored, and measured in a numerous amount of ways. But for this particular experiment, Water samples were collected by using either a bucket, a tub or even a water bottle.

Conclusion

Water is needed because we use it for our everyday use. We need to help keep water clean and eliminate contamination. Contamination causes E. coli and Total Coliform. Overall E. Coli and Total Coliform have increased. 256 samples were collected from S44 West and it proves that it has increased overtime. After analyzing and collected data based on coliforms and E.coli, water quality is very important. In this article we’ve introduced what was the problem, what was being tested and where it was being tested from. Then we have moved on to how it was measured and what was being measured. From that validation have been proven, results have been shown, and data have been collected. I hope that you have understand and realize how important water quality really is, why campus monitoring is effective, and how water affects us.

Results & Discussion

There was a total of 256 samples of E. Coli and Total Coliform that was measured in CFU/100 mL (Colony Forming Unit). Samples came from the S44 West location at Coastal Carolina University. From 2011-2020 the number of E. Coli and Total Coliform increased compared to the standards and averages.

The EPA Maximum Contaminant Level (MCL) for coliform bacteria in drinking water is zero (or no) total coliform per 100 mL of water

References


“Total Coliform and E. Coli Bacteria.” Total Coliform and E. Coli Bacteria - MSU Extension Water Quality | Montana State University, waterquality.montana.edu/well-ed/interpreting_results/fs_totalcoliform_ecoli.html.

Acknowledgements

I would like to thank Dr. Monica Gray and Ivy Spratling for helping me with this project and getting through the semester.