

Tiny plastic particles are moving through our water systems, ecosystems and possibly us. Microplastics are plastic particles less than 5mm in size. The presence of microplastics is still growing to this day as they are dispersed by wind and water and affecting human and animal life. Our hypothesis is that water sources in the urban areas of the Bighorn Basin will have more microplastics present than rural areas of the Bighorn Basin. We collected 6 water samples from both urban and rural areas. We then filtered the water samples through coffee filters and dried the filtered water as well as what was captured. We continued by doing two tests. Starting with looking at each sample under a UV light we picked out plastic particles. In the second test, we put Nile Red on the samples and looked at them under a fluorescent microscope to further pick out plastic particles. It is important to understand microplastics in our water systems. Using our different ways of discovering microplastics, we can figure out how much pollution is affecting each chosen location. Comparing the data, we can see which areas are affected the most to reveal what is hiding in our freshwater.