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Water Treatment Plant

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Tuesday, November 11, 2014

Water Treatment Plant

Brandi Gerschutz, 2017 Cohort

On a bleak and rainy Halloween the 2017 Cohort kept up their usual pep as they toured Dayton's Water Treatment Plant.



I would just like to give a quick overview of where the city of Dayton's water comes from and how it is treated at the plant. Water comes into the facility from various well fields, including the Mad River well fields. These well fields pump water into one of two water treatment stations, the Ottawa plant or the Miami plant. While each plant has a capacity of 96 million gallons a day, each only operates at around 20-25 million gallons. In this way, if something were to happen to one of the plants, the other could sufficiently take on all of the city of Dayton's water needs. The water is first treated with lime, and the Miami plant is special because it has a

lime recalcification process to reclaim used lime. The plant is also able to take used lime from other facilities and make it usable again, selling it back to other municipalities. The water is then treated with chlorine gas that is brought in by trucks. In this last sequence the water is also treated with fluorine and sand filtration.

On our tour we first saw the control room, which has various computer monitors to supervise the exterior and interior of the plant. These screens also displayed information from well fields throughout the Dayton area and information about the rate of water flow in various parts of the plant. I thought it was very interesting to see the Miami plant was taking in 17 million gallons of water, but only pumping out 11 million gallons at the time of our tour. The treated water needs time to mix with the chemicals, accounting for this difference. We then saw the lab, which to my surprise, looked exactly like a chemistry lab at UD. From there, we saw holding tanks that let settlement filter down, and giant tanks that hold treated water. The water is stored under pressure, so if there were a leak, water would spew out instead of letting contaminants seep in. We got to see the old pumps which are no longer used, but could be used in an emergency. We concluded our tour at the giant mosaic, coming full circle and following the water's path through the facility.



The mosaic represents the path of drinking water from the buried aquifer to the water treatment plants to the homes of Dayton.

It was a Happy Halloween for the Baby Stews, as they trickled their way through the Water Treatment Facility.