

St. Patrick's Day 2007, the first day of my internship for the City of Lawrence's Waste Reduction and Recycling division, and what is the task at hand? It was to ride down Mass Street in a mixed paper recycling truck in the parade. I would have to say that this was the best first day at a new job ever. However, it hasn't been all fun and games. Originally, I was hired as a temporary replacement at the city's Household hazardous Waste Facility (HHWF) for an employee getting ready to go on maternity leave; but after the five and a half months were up, and she was ready to come back to work, they asked me to stay on as a member of the staff. At that point I was assigned more office duties. Now here I am, almost a year later, up for a raise and with no immediate end in sight.

As I said, I was originally hired to work down at the HHWF. Since I had never heard of this place, I really had no idea what to expect going into this internship. All I really knew was what I was told in the interview which was that I would be down there three days a week and that it was a place where residents of Douglas County could bring items they wished to dispose of that were not safe to go into the regular trash. These items included paint, old motor oil, pesticides, old mercury thermometers, and many other environmentally hazardous things. I was also told that I would work in the office one day a week answering phones, scheduling appointments for HHWF and helping out various projects the department was working on. Some things that I had hoped to learn while working for the city were: what is being done to reduce waste, why the city did not have curbside recycling, as well as what HHWF was and how they accomplish their goals. Finally, I also hoped to gain general experience in the workforce and to have the opportunity to improve my general office skills. Eventually, I want to work with freshwater river systems, but I looked at this as a good opportunity to learn ways in which to reduce pollution and contamination before they have an opportunity to harm our rivers, soil, and groundwater supplies.

I have had the opportunity to work in many different areas throughout my internship, but I will start with the primary reason I was hired: to work at the HHWF. Working at the HHWF was a very interesting and educational experience. While down there I was required to wear steel-toed boots, a full body zip-up tyvek suit, gloves, and protective eye wear. People would call and schedule a time to bring us their unwanted items. When they arrived at the HHWF, my co-worker and I would unload the contents of their vehicle onto a roller cart while the person dropping off the items would fill out a short information sheet. We would get anything from a car with just a bag full of batteries to full trucks dragging full trailers behind them. Once the person was gone we would begin to sort through what was brought to the drop off center. The majority of what is brought in is paint, which we sort and handle in four different ways. First, if it is no longer good it is placed into a large cardboard box and will be shipped off to our contacted disposer, Phillip Services Cooperation. Second, if it is an oil-based paint it gets put into its own separate box to be shipped to the contractor. Third, if the paint is still good and it is a can that is at least $\frac{3}{4}$ full, it is put in the product reuse facility. Finally, if it is good but less than $\frac{3}{4}$ full, it is set aside to be bulked into five gallon buckets which will be set out in the product reuse later. Other items are sorted by dot class. This classification system specifies exactly what kind of hazardous material you are handling. Batteries are sorted into three categories: alkaline, rechargeable, and lithium. Pesticides, and weed killers, are put into their own category and sorted by solids and liquids. Aerosol cans, propane canisters, and light bulbs all go into their own bins. Anything that is flammable is

sorted and separated by solid and liquids, and anything that comes in that is unknown is tested for acidity and sorted. About once every two months our contracted disposer comes and picks up the hazardous waste that we have collected and takes it back to their facility. There it will be processed safely, broken down into what is reusable or what can be recycled, and the rest of it will be properly disposed of. Another part of the HHW program is the Product Reuse Facility. Items that are brought down to the HHWF that are still good, such as paint, cleaners, or motor oil, are set aside so that any Douglas County resident can come and pick up the items for free. This program has been effective in keeping many hazardous materials out of our landfills.

I have worked on many other recycling initiatives while employed by the city. I have worked two compost giveaways. These are events where the yard litter that is collected by the city is grouped up and turned into compost. Since a small portion of Lawrence residents trash collection bill goes towards the collection of the yard debris, the city gives the compost away for free at the event. My job has always been to stand at the gate to assist people in filling out a liability waiver and to keep count of the number of cars that are passing through.

I have worked other events such as Earth Day, and Electronic Recycling Event, and most recently the Energy Fair. In preparation for all three events I was involved in the advertisements and promotion of the event through the distribution of posters, flyers, and other information to local businesses. By the time I started with the department, preparations for Earth Day were well underway so I didn't have as much involvement with promoting it, but I did work the actual event. My task was to help organize and manage the event. I helped set up before, directed exhibitors to the appropriate location for their booth, and helped with the breakdown and cleanup. In addition to my organizational responsibilities I also worked the City's booth handing out pamphlets and information to people that stopped. For the Electronic Recycling Event the city partnered with Asset LifeCycle to help put it on. Again, I helped with the organization and management by setting up a safe flow of traffic with street cones prior to the event and with the cleanup after. During the Electronic Recycling event I worked the station where I had people fill out a short survey of how they heard about the event (the city's way of keeping track of how many people participated in the event and what was the most effective advertisement), did a quick inventory of what they had brought to be recycled and handed out battery bags. I was much more involved with the preparations for the Energy Fair. Some of my responsibilities included helping to organize the sustainable homes and businesses tours that took place, helping to organize the speakers for the event, and helping with the advertisement and tickets to be sold for the two different tours. My duties during the event were very similar to what I had done at the Earth Day event.

My primary job duties currently are office related since I am no longer working at the HHWF, and most of our events are over until spring. My duties include data entry, answering the phone, picking up mail, running errands, and various other jobs. One of the more important data entry responsibilities that I have is to enter the recycling route sheets that the drivers fill out every day. These help the city keep track of information vital to the management of the program, including how often and what time a business is being visited, how full or empty their bins are, and if the bins are consistently blocked or locked or not put out. They also keep information on the truck doing the pickup such as engine hours and mileage. There are three different recycling route sheets that I enter,:

cardboard for businesses, office paper also for businesses, and multi-lift recycling routes – which are the large bins that are set out in various parking lots around town for the public to use. The public bins can be broken down into three subcategories: newspaper, mixed paper, and cardboard. Another important data entry project is that of the Product Reuse sheets. When people use our facility we have to write down everything that is being taken and its corresponding dot class. I then enter this information into an excel spreadsheet that can be used to analyze how much and what was given out in a particular month. With this information the city is able to keep track of how much money they have saved by setting out items for reuse, instead of shipping them off to our contracted disposer. Other things that I enter and keep track of are where, when, and how many posters were delivered for a particular event, and kitchen, compost bin, and water bottle sales.

I have also done research on two different topics for the city. The first was on plastic bags and their contribution to the waste stream. One idea that the city has talked about trying is to eliminate free plastic bags at grocery and other retail stores. They would implement a 2-3 cent charge per bag on the final bill of all shoppers. One city that I research in the US that is doing this is San Francisco. The US is not alone in looking at this method of waste reduction. Other countries including Ireland, China, and different parts of Africa have implemented this type of charge. The other topic that I did some research on was Bottle bills. This type of bill encourages the recycling of bottles through a refund incentive. If Lawrence adopts a bottle bill, a deposit would be placed on bottles that would be refunded when the bottle was returned to an appropriate location. I looked at other states here in the US that have bottle bills, how much they charged, when the deposit went into effect and the results that the states have seen.

I have learned many things during my internship and subsequent employment with the city. From my research, I learned that Ireland reduced litter and waste generated by plastic bags by almost 90% after placing a 20 cent charge on plastic bags and that many cities in which bottle bills were implemented saw a reduction in litter from bottles. I have sat in on a presentation given by the head of my division, Bob Yoos, and the Waste Services manager from Hamms Landfill, Charlie Sedlock. Mr. Yoos talked about why the city does not have curbside recycling. His explanation was that it is far too expensive for the city to implement a recycling program because there is not a market nearby to buy the recycled goods that would be generated. Another factor is the weight of plastic. It is very light, resulting in a low payoff per truck load compared to the cost of the fuel necessary to pick up and deliver the recycled plastic. It would not be cost effective for the city to run the trucks. This is particularly true considering the distance they would have to travel to sell the goods and the price of gas at the time of the presentation. Other reasons as to why we don't have curbside recycling in Lawrence are that our current recycling rate was at 35% for 2007 (2% above the national average) and there are five private curbside recycling businesses in town. They also talked about how big the Hamms landfill is and that at our current rate of garbage generation we should be able to use it for another 80 years.

I have also gained a better appreciation of how much work, time, and effort must go into many of the different events put on by the city: how many phone calls need to be made to coordinate a single event, all of the paperwork that needs to be filled out by vendors, exhibitors, and presenters, time needed to arrange for the rental of necessary equipment, finding volunteers, and so on. I have also

gained a greater understanding of the paperwork that goes along with a simple recycling route and how much effort must be put in to stay on top of that paperwork to be able to complete in an accurate and timely manner the annual reports. Another insight I gained was how much office work is associated with non-office activities. I feel like this job has been a great learning experience, and that I am constantly given the opportunity to learn something new. For example, after our Christmas party last week, I learned that I am the worst bowler in our division!

As I Mentioned earlier, someday I hope to be working with river systems, so as far as how my internship applied to my career goals there were not many direct correlations, but there were clearly many indirect ways in which my experience with the city will be beneficial. For starts, when responding to water issues, inevitable you will encounter some form of governmental legislation or mandates (local, state, or federal), whether it is a bill such as the Federal Clean Water Act or the Safe Drinking Water Act. Therefore, having some background experience working in a governmental program in a related field will be invaluable. This internship also provides me with background and perspective relative to how a particular city recycling division operates, and will give me a basis for comparison with other programs. One possible use of this knowledge would be to see if there were methods of operation that benefit particular areas better than others. This would allow me to make suggestions for improvement. In a sense, I feel I am getting some background on what is being done to reduce pollution because the main focus of the division I work for is the diversion of waste and hazardous waste from contaminating our city, landfill, and surrounding area. This will ultimately benefit the varied regional ecosystems including our river systems. Overall, though I would have to say that this internship has been about accumulating experience and learning what it means to be part of a team working together for a common goal.