It's Just One Piece of Trash

How often have you dropped your candy wrapper on the ground and thought, "It's just one piece of trash"? Come on, be honest. You know what I am talking about. You walk to your car at the Mall and just as you are getting in, you quietly drop your chewing gum wrapper on the ground. What? None of you? Well, then how does all that trash end up in our drainage system?

The vast majority of the City of Albany's storm drainage system (probably 90%) does not go to the treatment plant. Rather, it flows directly into ditches and canals that drain to the Kinchafoonee Creek, Flint River or Percosin Creek. This is typical of most cities. Every piece of trash that falls out of a dumpster or is blow by the wind from the back of a truck or dropped by someone, will end up in one of our rivers or creeks.

Yeah, but it's just one piece of trash, the trash you are talking about must come from people doing illegal dumping. I am afraid not. Below is a picture taken after a recent rain event at one of the City's large canals. This particular spot is the last crossing before the canal drains into the Flint River:

Debris at Joshua Street Canal

As you can see, all types of debris can be found after a rain event. They range from illegal dumping such as tires and TV's, to plastic drink bottles and other bits of trash. The next rain, all this debris will be flushed into the Flint River, adversely impacting the ecosystem.

What can be done to stop scenes like this from being repeated?

The first step is education. It would be safe to assume that most people do not understand how a storm drainage system works and probably assume that most of the flow is sent to the wastewater treatment plant where the trash can be screened out. This is not the case. If each person would take responsibility for their own actions and not litter, then we would go a long way to reducing the amount of debris that enters our water ways.

Education will only go so far. That is why the second step is enforcement. The City of Albany recently set up a separate Code Enforcement Department. Part of their job will be to go after those that illegally dump. This will begin to reduce the amount of large items such as TV's, tires and mattresses that enter our waterways.

However, that still leaves those that will litter, despite education, and will illegally dump, despite enforcement. What can be done to help mitigate the effects of that pollution?

The City of Savannah is similar to the City of Albany in that they have large canals that drain their city to the Savannah River and the Atlantic Ocean. They have to deal with tide changes and so they built a series of pump stations with flood control gates. When the tide rises, the gates are closed to keep the tide from backing up into the canals. If it is raining when the tide is up, the pump stations pump the stormwater over the gates into the River and Ocean. One of the requirements is that the flow in the canals be screened to remove as much debris as possible. This serves two purposes, first, it prevents debris from clogging or damaging the pumps and second, it prevents the majority of the debris washed into the canals from entering the River and Ocean.

The bar screens are mechanically cleaned so that the flow in the canals is not affected. This also cuts down on personnel costs associated with manually cleaning the bar screens. One of the screens is shown below:

Mechanical Bar Screen in Savannah, Georgia

Mechanical Bar Screen in Savannah, Georgia

Here in Albany, we obviously do not suffer from tidal changes, but we still are faced with the fundamental problem of preventing debris from entering our waterways. Mechanical bar screens at or near the outfalls of our major ditches and canals would seem to be the obvious answer. The problem is that mechanical bar screens are expensive to install and maintain. Unless Federal or State environmental funds could be secured, there does not appear to be much chance of installing the bar screens. Installing manual bar screens would lessen the installation cost, but the operating cost and manpower required to keep the screens cleaned would far outweigh any savings in installation.

As you can see, every piece of litter, every soda bottle, every cigarette butt, every bit of debris will eventually end up in our rivers and streams. The importance of individual responsibility, coupled with active enforcement can not be stressed enough. That alone will decrease the amount of pollution, but will not prevent it.

Keep that in mind the next time you think, “It’s just one piece of trash”.