Town of

March 2, 2005

Dear Mikhayla S,

There really is not a "process" for recycling water. Mother nature is the best process. First of all, from a water standpoint, ALL water is recycled and reused, it just depends on your frame of reference. Remember, the water you are drawing out of a well originally fell on the ground as rain. That rain was formed due to evaporation from a lake or an ocean. The lake was formed from the collection of rainwater runoff or was supplied by an underground spring or aquifer. The aquifer supplies the water that you draw out of the well, bringing the water around full circle. This is the recycling of water on a global scale.

On a smaller scale, the reason you would want to reuse water is to save energy, and use water appropriate for your purpose. For example, you could water your vegetable garden with water from your garden hose. It would also be acceptable to water your vegetable garden with water from a nearby creek or stream. The water from your garden house is "potable" water, which means it has been specially treated so that any contaminants that could be dangerous to humans are removed. Removing the contaminants requires the use of electricity to power pumps, the addition of materials to remove the contaminants, paying people with the knowledge to operate a water treatment plan, as well as the cost to maintain the piping system to deliver the water to your home. It adds up to a lot of money. The cost of taking a bucket and carrying the water from the creek to your garden is very small in comparison. Conservation may be a better way to think of recycling water. Conserving water would mean using water only in the amount you need and not wasting it.

Pollution affects the way water is processed in a number of ways. First of all, it makes it more expensive to clean the water. A water or wastewater treatment plant may have to buy VERY expensive pieces of equipment or expensive materials, in order to remove certain pollutants. Sometimes, the removal of additional contaminants from the water will result in more waste being generated. The waste is combination of the contaminant and the material that was added to treat it. So, usually the amount of waste generated is larger, than the amount of contaminant present in the water initially. This waste must be hauled to a land fill, or disposed of in another manner. All of these things can cost a lot of money. Also, removing additional contaminants from the water will also require more time, which will reducing the total amount of water that can be treated in a given amount of time.

So use your water carefully, and think about what you put down the drain!

Sincerely,

Dawn Perry

Water Project Engineer

Town of Normal