Wastewater Department

225 S Mardale Drive
Brownsburg, IN. 46112

July 2012 – October 2012 Report

Respectfully Submitted November 2nd by:
Kathy Dillon, Superintendent

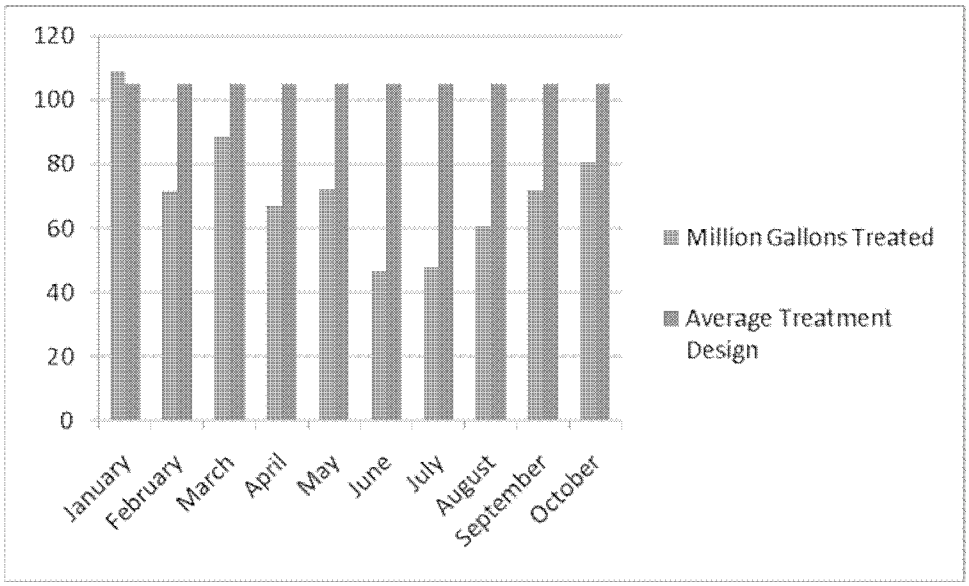
Summary

The Wastewater Department has been focusing this past fall & will continue to focus on the preventative maintenance associated with the collection system and the treatment plant. With the winter months approaching our discharge limits change to a more relaxed range. We also have a few less tests & processes that need completed. This provides us with the opportunity to complete some much needed draining and cleaning of tanks.

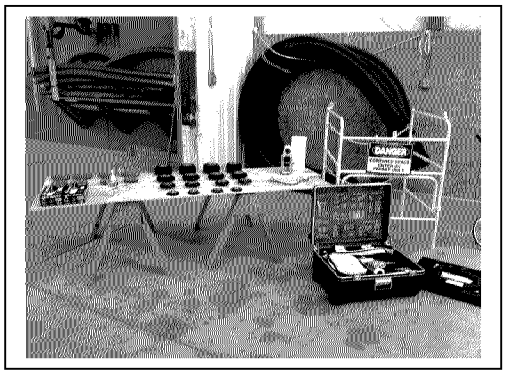
Current Projects and Goals

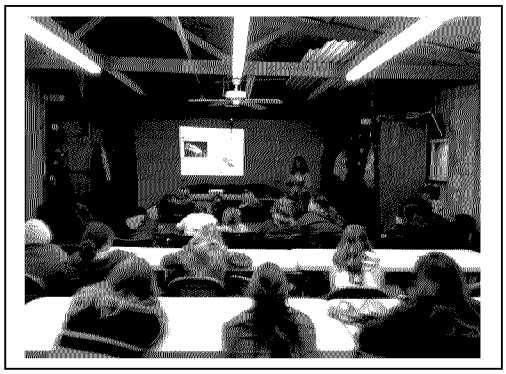
- Treatment Plant
  - Master Treatment Plant Expansion Plan Updates
    - The Master plans have been completed and the next step is to determine the funding and complete a preliminary engineering report.
  - Professional Growth
    - Wastewater Certifications – There was one employee take his collection system class I operator certification exam and one who took a class A operator certification exam during October. The results have not been received yet. The next opportunity to obtain certifications will be held in the spring of 2013.
    - Wastewater professional training – 4 employees will be attending the IWEA (Indiana Water Environment Conference) in November to obtain the latest information regarding upcoming regulations, process improvements, study results, and available technologies.
    - Safety Training – The department recognizes the importance of performing our tasks in a safe manner for our health, for our co-workers health, and the safety of the public. Several representatives attended the annual IPEP Safety training held in this was quite exciting due to the fact that this type of out-side training can be difficult to find. A department safety review was completed indicating possible tripping hazards on walkways. Several uneven/broken sections of sidewalks at the treatment plant were replaced to eliminate potential accidents. The work was completed in-house to keep the costs to a minimum. As the year comes to an end, the department will be completing several safety related goals that they have been working on throughout the year in an effort to reduce the number of accidents/injuries.

- Overall Treatment – The chart below indicates the total million gallons that were processed each month from January through October. With the return of the precipitation, the plant flows have increased.



- Public Education – Approximately 65 sixth grade students visited the wastewater plant for an opportunity to learn about what it takes to protect water quality. The students visited 5 learning stations consisting of a plant tour, laboratory testing/microorganism viewing, biosolids processing, collection system maintenance, and watershed/water quality protection. Below are a few pictures:





- NPDES Permit Renewal – The final NPDES permit for the water plant No. 2 backwash discharge was issued. This facility was also surprise inspected on October 2, 2012 and found to be in satisfactory condition.

■ Collection System (Sewers & Lift Stations)

- Twin Street Odor Control Project – The system is completed with additional landscaping anticipated to be needed in the spring.
- Odor Control Trial – A chemical addition odor & corrosion control trial was conducted during July and then again in September. The July trial was completed at a lift station just north of I74. It was found to work for reducing the downstream hydrogen sulfide levels; however, a large volume of chemical may be needed to obtain the desired results at the treatment plant. The second location chosen for the trial was much closer to the treatment plant and was closer to a couple of force main discharge points. This trial was very successful and much less chemical would need to be used to achieve the desired results. With the sewer master plan scheduled to move forward, the odor control would be dependent upon the installation of the infrastructure. It does not make sense to install a system that may need to be moved in a few years.
- Radio telemetry system failure – The radio telemetry alarm system failed at the Holloway A lift station due to a weak signal. The weak signal is believed to be the result of a damaged cable and tree growth blocking the line of sight. The tower is scheduled to be raised during which the cable will be replaced. (All lift stations have a back up visual flashing alarm light and an audible alarm) The station has been checked manually more frequently than normal since the radio telemetry had failed.

- Sewer Cleaning/Improvements/Televising
  - ♦ Cleaning/Televising – With the equipment back up and running, we are moving forward with some preventative sewer cleaning and televising. Several areas of the community were completed during the summer and early fall including Thornburg subdivision, Lincoln Pointe, Ironwood, Fairfield Heights, Sugar Bush, and Holiday Pines. Home owners shared their surprise of the activity in their neighborhoods due to the unusual equipment, noise, and occasional water splashing from toilets. Staff worked with Annisa on developing a variety of methods of communication. Before cleaning activities begin, informational door hangers are placed on homes as well as electronic notices are posted so that residents have a better understanding of the cleaning/televising activity and what to expect. We may have some emergency situations where notice is not provided, but this should be a rare occurrence. This has opened the lines of communication with customers as well as provided education. 49,267 feet of pipe were cleaned during August through the end of October.

- Combined Sewer Overflow Storage Facility – There was 1 overflow from the CSO tank which occurred on September 7th and continued into September 8th as the result of a 2.27" rain event. With the unusually dry summer, it is difficult to tell for sure, but it appears that the Murphy meadows storm separation project has helped the combined system to handle a more intense rain event before the storage facility overflows.
- Infiltration/Inflow – The search for the sources of extra water in our sewer systems is an ongoing activity. During October an abandoned pipe was found connected into a manhole that would allow stormwater from a ditch to flow into the sewer system during heavy rain events. The line has been capped and this can only help reduce the chances of future combined sewer overflows. There have also been two manholes found in a flood plain area that are scheduled to have inserts (special lid liners) installed in them to reduce the likelihood of flood waters from the creek entering the sewer system. As we continue preventative maintenance related activities, flow monitoring, and inspections, infiltration and inflow will be decreased.