



## WASTEWATER TREATMENT PLANT EXPANSION

Greentown, Indiana

As cities grow and expand, the flow to water resource recovery facilities (WRRFs), formerly known as wastewater treatment plants (WWTPs), increases. Many times, if preventative measures aren't taken, the WRRFs can reach and exceed their capacity. What happens then?

When a treatment plant reaches or approaches 90% of its hydraulic or organic design capacity, Rule 327 IAC 4-1-3 states that IDEM will notify the operator that a Sewer Connection Ban may be necessary. The Town of Greentown, Indiana experienced these issues during the past decade. Town officials engaged with Wessler to make major improvements to their collection and waste treatment systems.

The following case study is an overview of a project in Greentown, Indiana that began in 2005 and continued through 2014.

### THE PROBLEM

Due to treatment violations at the WRRF, Greentown was issued a Sewer Ban in 1997 and an Agreed Order in 2006. Violations were a result of hydraulic overloading (too much flow going to the plant) and effluent quality violations (water leaving the plant wasn't clean enough).

### THE IMPACT

The Sewer Ban prevented additional sewer connections in the Town until the Ban was lifted. This likely prevented the development of at least one residential development, if not more, and also had long-

term impacts on the future growth of the Town. Additionally, the Agreed Order carried the threat of financial penalties for failure to comply, leaving the Town with a looming financial burden that could not be overlooked.

### THE SOLUTION

Wessler was hired (2005) to develop a plan to remove the Town from both the Ban and the Agreed Order. A comprehensive plan for compliance was developed and implemented.

### THE RESULTS

A review of preconstruction and post construction electric bills has revealed an approximate 33% energy reduction with the new plant, a savings of approximately \$18,750/year.

Not only does the new plant use less energy than the old one, but it is also saving money on solid waste

disposal — approximately \$50,000 per year. This is based upon a comparison of 2014 disposal costs to the average disposal costs for the years 2009 – 2012.

Greentown WRRF - Energy Consumption

