

**PRESENTATION OF THE
PRELIMINARY INVESTIGATIVE REPORT (PIR)
Stable Acres (Aqua Indiana)
Whitley County Regional Water and Sewer District
June 21, 2018**



Introduction

The purpose of the Whitley County Regional Water and Sewer District (District) is to provide the residents of Whitley County an agency for which residents in the unincorporated areas of Whitley County could seek the provision of sanitary sewer service and public potable water service.

The Board of Trustees of the District instructed BCS Management, Inc. (BCS) to prepare a Preliminary Investigative Report (PIR) for the provision of sanitary sewer service to the Stable Acres neighborhood. The PIR included a review of available information, discussions with representatives of Aqua Indiana, comparison with similar utility projects the use of generally accepted engineering, finance, cost estimating and revenue projection practices.

Description of the Study Area and Treatment Provider

The Stable Acres neighborhood is located in unincorporated Whitley County (Jefferson Township) along the south side of State Road 14 (SR 14) approximately five miles southeast of Columbia City and ten miles east of South Whitley. The neighborhood includes approximately eighty-one (81) households that have been included in this investigation.

The nearest sewage treatment provider is the private utility of Aqua Indiana. Aqua Indiana has existing sewage collection infrastructure at the Micropulse facility located approximately two miles east of the Stable Acres neighborhood. In addition, Aqua has committed to building a sewage pumping station near the intersection of SR 14 and County Road 400 East coupled with a force main connection to the existing sewer facilities in front of the Micropulse facility (owned by Aqua Indiana). These facilities would be sized to accommodate needs at Stable Acres, Laud and other nearby areas west of Micropulse. Aqua Indiana has expressed a willingness to provide treatment services for this project. Aqua Indiana noted the following requirements for providing service in partnership with the District:

- Service would be subject to Aqua Indiana's sewer tariffs approved by the Indiana Utility Regulatory Commission and other service rules and regulations of Aqua Indiana.
- Aqua Indiana has a \$1,300 initial connection charge.

Sanitary Sewer Service Options and Costs

Several infrastructure options for providing sewer service to the study area were investigated. The options all assumed the completion and availability of Aqua's commitment to building a lift station near the intersection of SR 14 and County Road 400 East coupled with a force main connection to the existing facilities at Micropulse. The most cost effective option is described as Combination of Gravity Piping and Low Pressure Piping with Individual Grinder Pump Stations.

This option includes 8-inch diameter gravity piping to Aqua's new lift station located along SR 14 east of eastern edge of Stable Acres. Homes located along this gravity piping would be served with an individual service lateral (gravity). A portion of the areas in Stable Acres would include small diameter (2-3 inches), low pressure piping coupled with individual grinder pump stations for each customer. Sewage from the neighborhood would flow to the Aqua Indiana lift station (the connection point).

Table 1. Infrastructure Cost Summary

	Combination of Gravity Service and and Low Pressure Systems with Individual Grinder Pump Stations
Number of Customers	81
Estimated Total Project Cost	\$940,000

Values are rounded on this Table.

Expected Monthly Rates

The resulting monthly rate for the study area is dependent on two primary elements: The cost of treatment from the treatment partner (Aqua Indiana) and the cost of the local sanitary service by the District. The monthly charge would include maintenance and repair of the new sewer infrastructure. The individual grinder pump stations would use homeowner electrical service but be maintained by the District for at least the first 20-years of service.

The range of resulting monthly rates for the study area is presented in Table 2.

Table 2. Monthly Rate Range Summary

	Combination of Gravity Service and Low Pressure Systems with Individual Grinder Pump Stations
Low End of Expected Rate	\$110
High End of Expected Rate	\$147

Values are rounded on this Table.

Expected Initial Costs (Not included in Monthly Rates)

There are initial costs to the homeowner that cannot be included in the monthly rate and are traditionally not eligible for waiver, grant or other subsidy. The homeowner would need to address these cost items at the time of obtaining sewer service.

Table 3. Expected Initial Cost Listing

	Low Pressure System; Individual Grinder Pump Stations
Aqua Indiana Connection Charge	\$1,300
Septic tank decommission (pump out and back fill)	\$500 to \$1000
Home connection piping; electrical connection	\$1,500 to \$2,500

Values are rounded on this Table.

Anticipated Project Timing

The implementation of such a project is anticipated to take more than a year. The project schedule would include:

- 2-3 months of additional planning,
- 6-9 months of design and seeking a contractor (bidding), and
- 9-12 months of construction and testing.

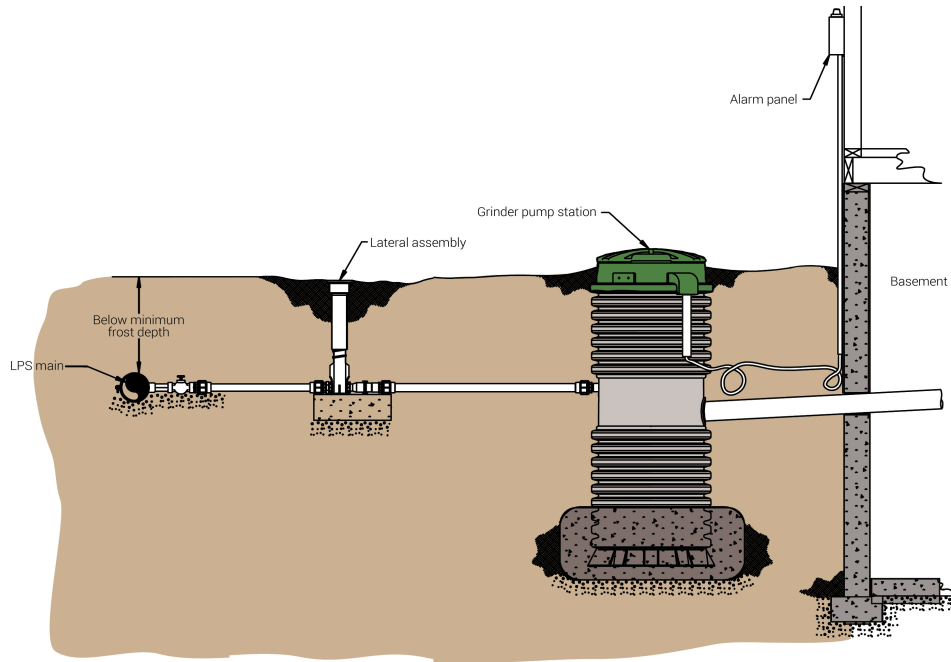
If this project area is included in the 2018 application to the Indiana Department of Environmental Management (IDEM) State Revolving Fund (SRF) program, then homeowners could expect the first public sewer service to begin in late 2019 or early 2020.

Regarding Individual Grinder Pump Stations

Some homes would be provided sewer service to the home with a 'gravity' service lateral. For those homes that cannot be serviced with a gravity service lateral, the home or facility will be provided with an individual grinder pump station (IGPS) to transport (pump) the sewage to the public sewer system. These units are described as an underground tank and pump system equipped with an above ground control panel and alarm. Each unit is wired into the electrical control panel of the home. A cross section drawing of an IGPS installation along with a representative photograph of a control panel is included with this report. The homeowner is able to select the location of the IGPS as long as the chosen location is free of drainage problems, water well set-backs, improvements and pavements or other obstructions. Control panels can be installed nearby on the sides of houses, garages or sheds but a separate post installation is recommended to avoid operational noises from interrupting home occupants.

The District will operate, maintain and repair the IGPS for at least the first 20-years of service. At the conclusion of the first 20-years of service, the IGPS will be serviced and then become the responsibility of the homeowner. Other districts in Indiana are implementing programs that will continue to maintain the IGPS after the first 20-years for an additional nominal charge.

Cross Section of an Individual Grinder Pump Station (IGPS)



Representative Photograph of a Control Panel for an IGPS



The Control Panel for an individual grinder pump station is approximately 24" to 36" tall.



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