

PRELIMINARY INVESTIGATIVE REPORT (PIR)

Dunfee (Aqua Indiana)

Whitley County Regional Water and Sewer District

November 1, 2017



The Secant Group, LLC

Fort Wayne, Indiana

www.theseccantgroup.com

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.

In 2017, 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 Dunfee neighborhood. In partnership with BCS, The Secant Group, LLC (TSG) has prepared this PIR to determine the reasonably available service options and to estimate the expected costs and funding for such systems.

The effective date of this PIR is November 1, 2017.

PIR Approach

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.

The PIR included the utilization of the following information:

- Construction costs for comparable infrastructure from other private and public projects located within Indiana within the previous two years.
- Grant, loan, partnering and other financing performance of the Allen County (Indiana) Regional Water and Sewer District (Allen RWSD) – 2008 to 2017.
- Allen RWSD budgeted and actual performance for 2013.
- Examination Reports of the State Board of Accounts for the Town of Monroeville, City of Woodburn, City of Columbia City, Town of Churubusco – 2010 to 2015.
- Whitley County GIS department resources for aerial base mapping (2016 flight), parcel information, road right-of-way and topographic information.

Although this information is adequate for the preparation of this PIR, the PIR cannot be considered for the use of actual construction of the described facilities.

Description of the Study Area and Treatment Provider

The Dunfee neighborhood is located in unincorporated Whitley County (Jefferson Township and Union Township) approximately one half mile north of State Road 14 along County Line Road. The neighborhood includes approximately twenty-four establishments comprised mostly of homes along with a church and a restaurant that have been included in this investigation.

The nearest sewage treatment provider is the private utility of Aqua Indiana. 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.
- Some households in the study area are subject to a previous assessment from the Dunfee Missionary Church due to sewer piping that the church installed.
- Aqua Indiana has a \$1,300 initial connection charge.

Sanitary Sewer Service Options and Costs

Two infrastructure options for providing sewer service to the study area were determined. For each option, an estimated construction cost, contingency, engineering and other costs were determined and then combined as a Estimated Total Project Cost.

Option 1. Southern Portion Only.

The first option includes small diameter (2 inches), low pressure piping coupled with individual grinder pump stations for each of the approximately sixteen (16) customers in the southern portion of the study area. Sewage from the neighborhood would be pumped south to the Proposed Point of Connection. Map PIR-1 presents a schematic drawing of the required infrastructure. A general listing of the infrastructure cost is listed in Table 1. A more detailed listing of the expected construction, contingency, engineering and other costs are presented in Table 3 found at the end of this report.

Option 2. Northern and Southern Portion.

The second option includes small diameter (2 inches), low pressure piping coupled with individual grinder pump stations for each of the approximately twenty-four (24) customers in the Study area. Sewage from the neighborhood would be pumped south to the Proposed Point of Connection. Map PIR-1 presents a schematic drawing of the required infrastructure. A general listing of the infrastructure cost is listed in Table 1. A more detailed listing of the expected construction, contingency, engineering and other costs are presented in Table 4 found at the end of this report.

Table 1. Infrastructure Cost Comparison

	Option 1 – Low Pressure	Option 2 - Gravity
Number of Customers	16	24
Estimated Total Project Cost	\$196,000	\$341,000
Cost per Customer	\$12,300	\$14,200

Values are rounded on this Table.

The expected construction costs do not include additional treatment facilities or increased collection system improvements with the proposed treatment provider; rather, the anticipated service options are based on the proposed treatment provider having adequate capacity within their collection system to transport the sewage from the study area and enough treatment capacity to provide service to the study area.

Expected Monthly Rates

The resulting monthly rate for the study area is dependent on several factors. The factors include the cost of treatment from the treatment partner, the debt service payment for the local sanitary service infrastructure, benefits of grants or reduced interest rates, the cost of District servicing the debt and any maintenance on the customer facilities, the cost of billing, administration, operations and maintenance of the local infrastructure, and funds that are set aside for the infrastructure replacement. Each of these categories is described in more detail:

Aqua Indiana Charges. The treatment provider has a separate tariff structure applying to the cost of transporting and treating the sewage from the District area. Aqua Indiana has an established flat rate for unmetered direct service to customers. This is sometimes called a ‘retail’ rate and includes full service from the treatment provider including billing, customer service and the operation and maintenance of the infrastructure in the District area. Aqua Indiana does not have a ‘bulk’ rate, however, Aqua has expressed a preliminary willingness to apply a reduction factor to homes provided septic system relief.

District Debt Service. The debt service payments are based on an IDEM State Revolving Fund provided 20-year loan at an interest rate of 2% with monthly payments. Various scenarios of the category assume different levels of principle grant/forgiveness rather than a less likely change in term. A lower interest rate is certainly possible, but it would have a similar impact (reductions) in the monthly rate as modeled with a lower principle.

District Debt Servicing, Customer Facilities. The debt servicing is based on the staffing and professional services necessary to administer the overall debt service payments and oversight. In addition, this component includes maintenance on individual grinder pump stations (not maintained by Aqua Indiana).

District Billing, Administration, Operations and Maintenance. If Aqua Indiana is not providing full service to the District customers in the PIR area (or the District chooses to provide the full service directly), then this portion of the rates to District customers would provide for the cost of billing and customer service, the operations and maintenance of the District area.

District Replacement (0.5%). A fund is established for the use of providing for the replacement of installed infrastructure as it approaches its design life or otherwise is no longer functional. A replacement interval can be determined from the level of funding (0.5% equates to a 200-year replacement interval) but it is important to note that a portion of the replacement funding is likely to be debt financed at the time of need. The amount of funding in this category is tied to the construction value of the infrastructure that remains the responsibility of the District.

The range of tested Scenarios is summarized below in Table 2. Detailed breakdowns of each modeled Scenario is presented in Table 5 and Table 6.

Table 2. Monthly Rate Comparison

	Option 1 – Southern Only	Option 2 – All Of Area
Low end of Expected Rates	\$112	\$119
High end of Expected Rates	\$150	\$160

Values are rounded on this Table.

The most sensitive component of the Scenarios is the amount of expected grant funding. Selected Scenarios include up to a 40% level of funding coming from outside grants or other assistance (not from rate payers). This is considered a reasonable assumption based on recent policy and practices of government funded assistance programs and recent performance (grant level) of nearby, recent, similar projects in northeast Indiana for septic system relief but is not guaranteed.

This study also assumes that any required debt reserve is already in place with the District. If such debt reserve payments were assumed to be necessary, the monthly rate would be expected to rise accordingly until the reserve level was in place (typically the first five-year period of the overall term).

Conclusions and Recommendations

This PIR examined possible service options and expected costs for sanitary sewer service to the study area. The PIR presents such reasonable infrastructure options and expected cost scenarios and was based on information and the performance of similar projects, utility agencies and industry standards.

Based on the available and utilized information and resulting option, cost and rate scenarios described in this PIR, a successful project is feasible. However, the results of the PIR should be communicated with property owners, Board of Trustee members and other interested persons before a project would move forward. The feasibility declared in this PIR is valid at this time but is limited to the scenarios, information and assumptions declared during this process.



Thomas T. (Ted) Nitza, Jr., P.E., President

The Secant Group, LLC

www.thesecantgroup.com

ted.nitza@thesecantgroup.com

(260) 416-6188