

STORMWATER UTILITY RATE STUDY

CITY OF GREENSBURG, INDIANA

JULY 2021

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CHAPTER 1: PROJECT OVERVIEW & SCOPE

Like many Indiana cities, the City of Greensburg is faced with the challenge of paying for ongoing maintenance, repair, replacement and improvement of the existing and future stormwater system as well as the increased costs to comply with state and federal stormwater quality mandates. In Greensburg, the stormwater program is paid for through the city's general fund, which means stormwater competes directly for funding with other important and popular services provided by the city.

Recognizing the need for a separate and stable funding source for stormwater, the city retained Christopher B. Burke Engineering, LLC (Burke) to review their existing stormwater program and recommend an assessment rate and structure to meet current and future stormwater needs.

CHAPTER 2: STORMWATER UTILITIES

2.1 STORMWATER UTILITY AS A FUNDING MECHANISM

The stormwater utility is a proven method of providing a reliable funding source for the management of stormwater programs. This funding source is provided through a user fee similar to the fees collected for public water and wastewater services. The stormwater utility is unique (when compared with water and wastewater utilities) in that the service cannot be disconnected for nonpayment, service is provided to all citizens without choice, and the actual service to a particular property is difficult to quantify. Consequently, the successful implementation of a stormwater utility requires a good stormwater management program with well-defined deliverables as well as public support through education and outreach.

This type of funding mechanism has been coined SAFE – stable, adequate, flexible, and equitable.

- **Stable** – a stormwater utility is stable because it is separated from the annual budget process and does not compete with other public services and programs such as roads, schools, public safety, and solid waste. This stable revenue source allows stormwater managers to effectively implement their stormwater program and complete drainage projects.
- **Acceptable** – a stormwater utility is acceptable because the user fee is calculated based on a detailed evaluation of program needs and the capital improvement plan.
- **Flexible** – a stormwater utility is flexible because the rate structure can include any number of modifiers, economic incentives to reduce user fees, variables for land use types and secondary funding methods to meet the stormwater management program objectives.
- **Equitable** – a stormwater utility is equitable because the user fee is proportional to the rate of stormwater runoff from each parcel and demand put on the city-owned and maintained drainage system.

2.2 BENEFITS OF A STORMWATER UTILITY

There are many benefits of a stormwater utility. The following summarizes these into benefits for the elected official and senior city staff responsible for annual funding of the stormwater program, the benefits from the perspective of staff responsible for the daily operations of the stormwater program, and the benefits to the public.

1. Benefits from the perspective of the elected officials and senior staff responsible for annual funding of the stormwater program:
 - **Dedicated Funding Source** – revenues generated by stormwater utilities can be used as a dedicated source of funding.
 - **Supplemental Funding Source** – stormwater utility revenues can be used to replace current general fund/ad valorem tax funding which enables the tax-based funding to be used for other community needs.
 - **Sustainable Revenues** – revenues generated by stormwater utilities are constant and tend to gradually increase with the community's growth.
 - **Bondable Revenue Stream** – bonds for capital improvements can be issued to facilitate constructing stormwater management facilities because the revenues generated by stormwater utilities can be used to pay back bonds.

2. Benefits from the perspective of staff responsible for the daily operations of the stormwater program:
 - **Programmatic Stability** – the community’s stormwater management program will tend to operate on a stable basis which supports staff stability, continued levels of maintenance operations, and continuity in capital improvement project programs since stormwater utilities have stable revenues.
 - **Long-Term View** – stormwater managers can adopt a longer view in planning for capital investments, undertaking maintenance enhancement, and developing staff since they are not operating in a year-to-year funding environment with no certainty of follow-on funding in successive years.
 - **Facilitation of Rule 13 Compliance** – communities that are regulated under the Federal NPDES Stormwater Permitting Program, such as City of Greensburg, are more readily able to comply with the specific permit conditions requiring the development of funding for annual operation of the Stormwater Management Program that is contained in their Rule 13 Permits.
3. Benefits from the perspective of the public:
 - **Improvements to the Drainage System** - everybody benefits from the maintenance and improvements provided by the stormwater utility, through reduced flooding and improved public safety.
 - **Improved Water Quality for Recreation** – activities that involve direct human interaction with water such as swimming, boating, and sport-fishing.
 - **Improved Livability and Quality of Life** – national surveys conducted about the factors that are most important in choosing a place to live consistently include “clean water”. Clean rivers, streams, and lakes benefit the livability of a community and the standard of living for current and future generations.

2.3 ITEMS TYPICALLY FUNDED BY A STORMWATER UTILITY

A stormwater utility can generate revenue to fund a variety of structural and non-structural activities that relate to or support the city’s stormwater management program. The following summarizes the stormwater activities that are typically funded through a utility:

- **Capital Improvement Projects** – including major construction projects and/or rehabilitative maintenance of flood control structures or stormwater infrastructure
- **Rule 13 Compliance** – including annual reports, addressing illicit connections, construction inspections, public information, and dry weather screening to meet permit requirements
- **Planning** – including stormwater master plans, watershed hydrologic analysis and stream studies, stormwater ordinances and technical standards, floodplain management plans, and land use planning
- **Operation and Maintenance** – including street sweeping, inlet/pipe cleaning, ditch maintenance, mowing and litter control, stormwater pond maintenance, and minor repair and construction of stormwater infrastructure
- **Vehicles and Equipment** – purchase and/or maintenance of vehicles and equipment (street sweepers, vacuum trucks, etc.), and program supplies and software

- **Training** – including erosion and sediment control, good housekeeping and pollution prevention, illicit discharge detection and elimination, and developer and contractor training
- **Administration** – including staff necessary for the coordination and implementation of the stormwater program

RECOMMENDATION #1

It is recommended that the city concentrate funds generated through the stormwater utility on capital improvement projects.

2.4 STATE AUTHORITY TO COLLECT STORMWATER FEES

Indiana law allows municipalities to collect user fees necessary to manage the capital improvement and operational expenses associated with stormwater management. This can be done by either creating a new Department of Stormwater Management or expanding the scope of services of the existing Municipal Sewage Works.

Department of Stormwater Management (IC 8-1.5-5)

IC 8-1.5-5 was established in 1988 as a specific tool for cities and towns to improve their ability to manage stormwater. Under this law, municipalities must, by ordinance:

1. Establish a Department of Stormwater Management. The Department is governed by 3-member board appointed by the executive of the municipality
2. Define the district that is considered to receive a special benefit from the collection and disposal of stormwater, identify the method for determining the fee, how the stormwater funds may be used, and collection method
3. Establish the rate structure and user fee for rate payers of the stormwater utility

Municipal Sewage Works (IC 36-9-23)

Stormwater user fees may be collected under the 1981 statute IC 36-9-23 that authorizes municipalities to operate sewage works. While the focus of this statute is sewage, the language includes storm sewers and storm drainage as part of that system. A municipal Board of Public Works is responsible for the construction, acquisition, improvement, operation, and maintenance of sewage works. Expanding the existing Board's responsibility to include the stormwater requires a local amendment to the ordinance that establishes their authority.

RECOMMENDATION #2

It is recommended that the city operate the stormwater utility under the Municipal Sewage Works statute.

CHAPTER 3: STORMWATER PROGRAM COSTS

The stormwater program costs prepared as part of this rate study includes a 5-year projection with an average annual stormwater revenue requirement of \$1,350,000. Ninety-one percent of the proposed revenue generated from the stormwater utility will be for capital projects, 7% will go toward administrative costs and 2% for stormwater operations. The stormwater program costs are discussed in more detail below and a tabulation of the 5-year budget is in **Appendix 1**.

3.1 STORMWATER CAPITAL PROJECTS

Ninety-one percent or \$6,150,000 (cumulative over 5 years) of the stormwater utility budget will be for capital projects needed to maintain, repair, replace and improve the existing and future system. The following summarizes the major categories and projects identified by the city for implementation.

Inlet Replacement

Over time, stormwater inlets become less efficient at collecting and conveying runoff from the street due to damage, capacity or flow restrictions. The City of Greensburg has identified inlet replacement as a capital project to be funded through the stormwater utility. The total estimated 5-year budget for inlet replacement is \$1,250,000 or \$250,000 annually to replace approximately 70 inlets each year.

Drainage Improvement Projects

In 2010 the City of Greensburg hired DLZ to prepare a Stormwater Drainage Improvement Project Plan. This study identified and prioritized 10 stormwater drainage problem areas throughout the city and estimated costs for recommended improvements. These include drainage improvements for Monfort and Third, Highland Acres, Millhousen and Hillcrest neighborhoods as well as channel improvements for City Creek, Upper Gas Creek, Lower Gas Creek and North Greensburg Ditch. Due to limited funding, only one of the recommended improvements identified in this 2010 study, Gas Creek Basin, has been completed. There continues to be a need for drainage improvements in the remaining areas. Burke reviewed these projects and updated the costs from \$7,122,000 to \$13,295,850 to reflect current design and construction costs. **Appendix 1** includes the 2010 study and an updated costs worksheet for the outstanding projects. The city will need to revisit the findings of the 2010 study and prioritize projects for implementation. The total estimated 5-year budget for drainage improvement projects is \$4,750,000 or \$950,000 annually.

Capital Improvement Stormwater Master Plan

Preparing a Capital Improvement Stormwater Master Plan is necessary to identify, study and prioritize future drainage improvement projects for the subsequent 5-year budget cycle. The one-time estimated budget for the capital improvement stormwater master plan is \$150,000 anticipated in Year 4 (2025) of the 5-year budget.

3.2 STORMWATER OPERATING COSTS

Two percent or \$100,000 (cumulative over 5 years) of the stormwater utility is allocated to stormwater operating costs, specifically compliance with the NPDES Rule 13 Permit. Implementation of the City of Greensburg's Rule 13 Permit requires prescribed tasks related to training, public education and public outreach. Permit implementation and reporting costs are included in the stormwater utility budget however, stormwater staff salaries and costs associated with equipment operations such as street sweepers and vac trucks will continue to pay through the city's general fund. The total estimated 5-year budget for stormwater program operating costs is \$100,000 or \$20,000 annually.

3.3 ADMINISTRATIVE COSTS

Seven percent or \$472,500 (cumulative over 5 years) of the stormwater utility will be used for stormwater-related administrative costs. Stormwater administrative staff salaries will continue to be paid through the general fund.

Administrative Programs

The stormwater program costs include allocations for legal expenses related to the implementing the stormwater utility and review/re-evaluation of the utility fee and structure in Year 5 (2026). This also includes funds for on-call stormwater consultant services that may be needed for utility implementation, capital projects and Rule 13 compliance. The total estimated 5-year budget for administrative programs is \$265,000 or \$50,000 annually except for Year 5 which is \$65,000.

Stormwater Fee Revenue Adjustments

The stormwater utility revenue may be reduced by nonresidential property owners qualifying for a discounted fees through the stormwater credit program or because of nonpayment through delinquency or residential utility relief program. The total estimated 5-year budget for stormwater fee revenue adjustment is \$207,500 or \$41,500 annually.

3.4 FIVE-YEAR STORMWATER PROGRAM COSTS

Table 3-1 summarizes the 5-year stormwater program costs identified by the city. A detail worksheet is included in **Appendix 1**.

Table 3-1 Five-year Stormwater Program Costs

2022	2023	2024	2025	2026	Total
\$1,311,500	\$1,311,500	\$1,311,500	\$1,311,500	\$1,311,500	\$6,722,500
Total Stormwater Department Revenue Needs for 5-Year Budget Period:					\$6,722,500
Average Annual Revenue Requirement:					\$1,344,555
Rounded to Annual Budget Need of:					\$1,350,000

RECOMMENDATION #3

It is recommended that the city adopt an average annual stormwater utility budget of \$1,350,000 for capital projects, program operation and administrative stormwater costs

CHAPTER 4: STORMWATER UTILITY RATE & RATE STRUCTURE

Stormwater runoff carries pollutants to streams and lakes, and pollutant loads vary depending on land use. For example, nutrients (nitrogen and phosphorus) are higher in residential areas whereas metals (zinc, cadmium, and lead) are higher in runoff from highways and industrial areas. Impervious areas like rooftops, roads, and parking lots increase volume and velocity of stormwater runoff.

Stormwater fees are designed to share the costs in a community to cover stormwater expenses that may include program costs, infrastructure costs, and capital improvements cost. Those community shared costs include stormwater that comes from shared public infrastructure. Even though each parcel is billed an amount that is related to the characteristics of their specific parcel, a community's utility rate structure is designed to share the entire stormwater expense which includes expenses that are beyond individual properties. Billing is done per parcel to provide for user fees that are deemed overall fair and equitable to everyone within a user class, without preference to any one user or considering special characteristics of that user, knowing that all users must contribute and will benefit from the community's stormwater infrastructure and program.

Based on data and information presented in Chapter 3, the City of Greensburg's estimated average annual stormwater program cost is \$1,350,000. This chapter discusses a proposed utility rate structure and utility rate needed to generate an adequate revenue to cover those projected costs.

4.1 FLAT FEE AND VARIABLE FEE STORMWATER UTILITY

There are predominantly two stormwater utility rate types: flat fee and variable fee.

Flat Fee

The fee is the same for each parcel regardless of land use, acreage, imperviousness, stormwater improvements, etc. This method is simple since everyone pays the same amount. Collection is typically tied to an existing database which reduces billing costs and duplication errors. However, this method can be difficult to justify and is not considered fair or equitable among rate payers since it does not consider differences of parcel size, land use, and stormwater runoff from impervious area.

Variable Fee

The fee varies depending on the parcel based on acreage, assessed value, land use, impervious area, or a combination of these.

1. Acreage Based – a flat rate per acre. This method is simple since everyone pays something and it is based on readily available acreage data. However, it can be difficult to justify and is not considered fair or equitable among rate payers since it does not consider differences in land use and stormwater runoff.
2. Assessed Value – equivalent to a percent of assessed property value. This method is simple since everyone pays something and it is based on readily available assessment data. However, it can be difficult to justify and is not considered fair or equitable among rate payers since it does not consider differences in land use and there is no direct correlation between a property's assessed value and stormwater runoff.

3. Land Use – tiered flat rate or runoff coefficient. Both land use methods can be effective since they consider land use and its correlation to stormwater runoff. Although collection can be based on an existing database of land use codes, the rate assigned to each code is an average for typical land use and will not reflect actual imperviousness and its impact on stormwater runoff.
4. Impervious Area – average impervious area, actual impervious area for all land use types, or actual impervious area for only a particular land use type. Each of these methods takes into consideration either the average or actual impervious area for each land use. Since impervious area is directly correlated to the quantity and quality of stormwater runoff, the impervious methods are the most fair and equitable of all the rate types. However, since impervious area data may not be readily available, developing the initial database can be labor-intensive making it more expensive and time-consuming than methods based on land-use. Using a typical impervious area size for residential properties (known as “Equivalent Residential Unit” – ERU”) that normally constitute a large percentage of parcels in a community, instead of determining actual imperviousness of each residential parcel, would greatly reduce the initial engineering fees and future ongoing administrative costs of database maintenance and is therefore a very popular and common procedure for utilities that set the user fees based on imperviousness. Additionally, areas with no impervious areas still generate runoff and contribute stormwater volume and pollutants to some degree. These unimproved parcels also benefit from the overall stormwater program. Therefore, the impervious area method may be modified to collect a nominal flat fee from unimproved parcels (with no impervious area), typically set as a fraction of 1 ERU.

Assessing fees based on impervious area is the most common stormwater utility rate method throughout Indiana and the United States. Since it is the best indicator of amount and quality of stormwater runoff, it is considered the most defensible, fair, and equitable for rate payers. Once the initial impervious area database has been developed for nonresidential units, new impervious areas may be easily added to ensure the database is accurate.

RECOMMENDATION #4

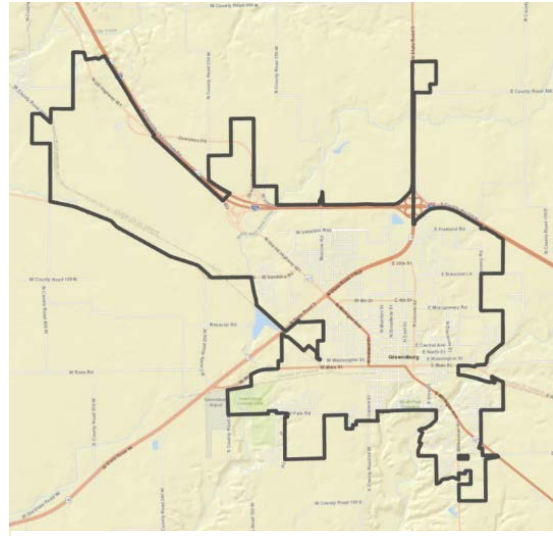
It is recommended that the city implement a variable fee stormwater rate structure that is based on impervious area for each parcel of real estate.

4.2 UTILITY RATE STRUCTURE ASSUMPTIONS

To estimate potential revenues needed to be generated to meet the program costs, a rate structure database was created. Aside from its main purpose, the database was created in a way to enable the city to change some parameters and instantly see its effects on the required fee per ERU and how a given scenario may change the share of revenue generated from each land use property type. The following assumptions were made when developing the different scenarios in the rate structure database.

1. The study area (**Figure 4-1**) was defined as the entire jurisdiction of the City of Greensburg plus a few additional areas where the city provides sewer service.

2. The parcel data provided by the city included a field classifying each parcel into a property class. The entries in this field were the property class codes used by the State of Indiana's Property Tax Management System. Of the 5,355 parcels, there were 19 parcels that were not attributed with a property class code. For 12 of those parcels, Burke assigned property class codes based on a combination of visual inspection of the 2020 aerial photography, Google Maps, property classes of the surrounding parcels, and professional judgment. The remaining 7 unclassified parcels were coded as 'Unclassified' since there was no ownership information available for these parcels
3. Digitization for a representative sample of residential structures was undertaken for the purpose of establishing an ERU.
4. The impervious area of 758 nonresidential parcels were digitized individually.
5. Public roads and railroad lines were not digitized.



**Figure 4-1 City of Greensburg Stormwater
Utility Service Area**

4.3 PARCEL DATABASE SUMMARY AND STATISTICS

At the time of preparing this rate study there were 5,355 parcels within the study area. **Figure 4-2** and **Figure 4-3** depict the percentages of parcels and their total acreage categorized by generalized property class. The city elected to place Honda Manufacturing Company (Honda) in a separate property class, due to the large amount of impervious cover for their facility and the presence of a complex on site detention system. **Table 4-1** includes these percentages and the total number of parcels and land areas categories by detailed property class.

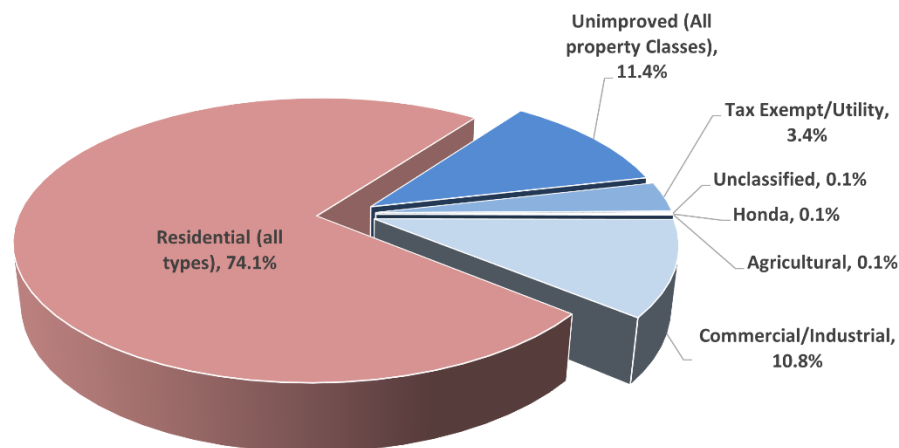


Figure 4-2 Percentage of Parcels in Study Area

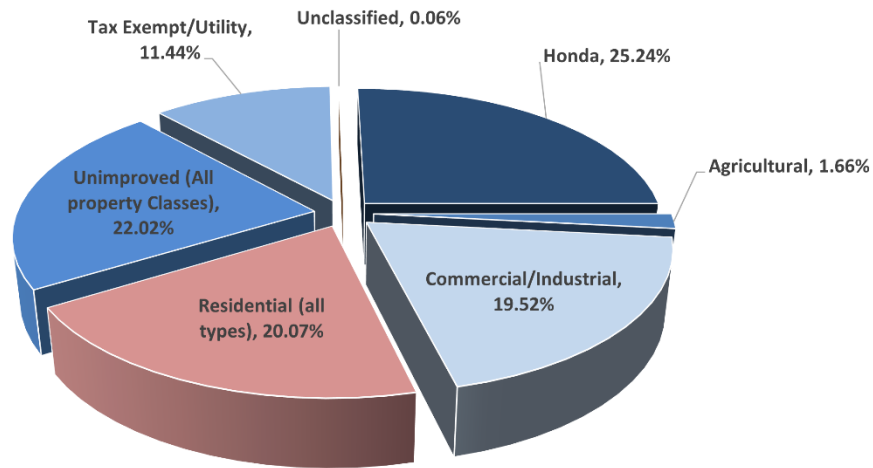


Figure 4-3 Percentage of Acres in Study Area

Table 4-1 Parcel Summary in Study Area

Property Class	No. of Parcels	Percentage of Parcels	Acres (parcels)	Percentage of Acres (parcels)
Agricultural	4	0.07%	97.2	1.66%
Agricultural (Unimproved)	62	1.16%	712.4	12.17%
Commercial	499	9.32%	652.4	11.14%
Commercial (Unimproved)	50	0.93%	101.4	1.73%
Industrial	81	1.51%	490.4	8.37%
Industrial (Unimproved)	8	0.15%	12.1	0.21%
Residential (SFR)	3,636	67.90%	1,094.0	18.68%
Residential (Duplex)	156	2.91%	32.3	0.55%
Residential (Triplex)	10	0.19%	2.6	0.04%
Residential (Condo)	42	0.78%	1.5	0.03%
Residential (MH)	48	0.90%	12.7	0.22%
Residential (Other)	78	1.46%	32.1	0.55%
Residential (Unimproved)	274	5.12%	146.2	2.50%
Tax Exempt	174	3.25%	641.2	10.95%
Tax Exempt (Unimproved)	211	3.94%	221.8	3.79%
Unclassified	5	0.09%	3.2	0.06%
Utility (Railroad)	9	0.17%	29.0	0.49%
Honda	4	0.07%	1,478.0	25.24%
Honda (Unimproved)	4	0.07%	95.4	1.63%
Totals:	5,355	100%	5,855.9	100%

4.4 ERU CALCULATION FOR RESIDENTIAL PARCELS

The ERU or equivalent residential unit is the average area of impervious area on a SFR parcel. The direct impact to the public storm sewer system is undoubtedly different from one residence to the other, but due to the sheer number of residential units and their typical sizes, the impacts are assumed to be within a close range and each unit is charged a nominal rate. The greater value of the ERU is that it serves as a unit for determining nonresidential rates.

The ERU was calculated as follows:

1. 127 SFR parcels were selected from within the residential areas of Greensburg (**Figure 4-4**), which is about 3.5% of the total number of SFRs in the city. Burke's previous research has determined that digitizing the impervious areas from even a 1% to 2% sample of SFR properties yields nearly the same results as digitizing higher percentages of SFR properties.
2. Impervious areas from the selected sample of 127 SFR properties were digitized. The results from a statistical analysis using the impervious areas of these SFR properties, produced a mean of 3,109 square feet when removing 10% of outliers. The median of the values of the selected SFR properties was calculated to be 2,933 square feet. To facilitate calculations and quickly determine the number of ERUs, the value of 1 ERU was set at 3,000 square feet.

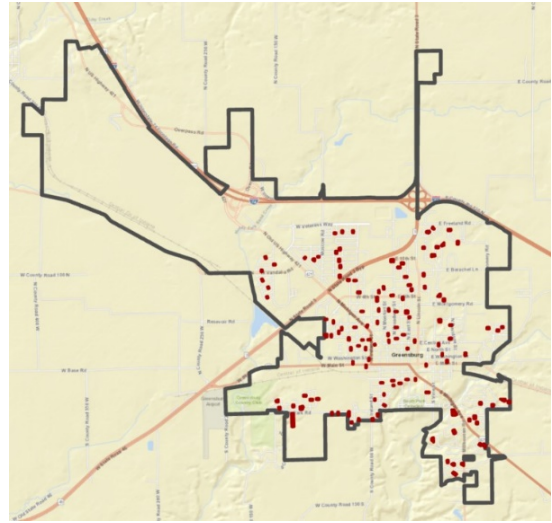


Figure 4-4: Location of Representative SFR Properties to Calculate ERU

Each SFR property is typically assessed a minimum of 1 ERU, regardless of the size of impervious area on each property. Condominiums, duplexes, triplexes, mobile homes, and agricultural homesteads are also typically assessed a minimum of 1 ERU each.

RECOMMENDATION #5

It is recommended that the city use an equivalent residential unit (ERU) value set at 3,000 square feet.

4.5 IMPERVIOUS AREA CALCULATION FOR NONRESIDENTIAL PROPERTIES

The actual impervious area was digitized for all nonresidential parcels. These include commercial, industrial, tax exempt, utilities, and apartment property classes as coded in the City of Greensburg GIS data. In the instances where no property class information was available, property classes were assigned based on visual inspection of 2020 aerial photography and professional judgment. In addition, aerial photography from Google Earth was inspected to discover areas that may have been developed (or razed) after the publication date of the orthophotography.

Figure 4-5 is an example of the impervious area that was digitized for nonresidential parcels and the reasonable care that was taken when tracing around edges of impervious areas. The resolution of the provided aerial photography limits the accuracy in these efforts.

The status of properties with property class codes that included “vacant” were scrutinized in more detail. Residential parcels with a class code that included “vacant” were assumed to be unimproved (no impervious area). However, the aerial photography for all nonresidential parcels were visually examined and parcels with any impervious area (such as a private access road) were digitized, with those parcels having no impervious area classified as “unimproved”.



Figure 4-5 Example of Impervious Area Digitized from a Nonresidential Parcel

4.6 UTILITY RATE STRUCTURE

Multiple scenarios were explored to determine the most appropriate stormwater rate structure for the city. This was accomplished by performing “what-if” scenarios in the database and adjusting ERU multipliers for specific property classes. **Table 4-2** illustrates what the city determined to be the most fair and equitable scenario for the stormwater utility rate structure.

Table 4-2 Proposed Stormwater Utility Rate Structure

Property Class	Proposed Rate
Agricultural and Residential (SFR, Duplex, Triplex, Mobile Homes, Condominiums)	1.0 ERU (Flat Fee)
Commercial, Industrial, Tax Exempt, Apartments, Residential Common Areas	Multiples of 1.0 ERU based on the actual amount of impervious area, but subject to 1.0 ERU minimum
Unimproved Properties (all property classes)	0.33 ERU (Flat Fee)
Honda Manufacturing Facility	Multiples of 0.33 ERU based on the actual amount of impervious area

This rate structure attempts to focus the assessment of utility fees (based on anticipated stormwater impacts) to those properties that have impervious areas, with a nominal flat fee charged to unimproved parcel to recognize that all parcels contribute to stormwater to some degree. Based on this proposed utility rate structure and impervious area calculations described earlier, there are a total of 16,262 stormwater ERUs within the city.

To determine the appropriate fee for each ERU, the needed revenue from the stormwater utility as determined by examining the 5-year program costs in the previous chapter, \$1,350,000, was divided by the total number of ERUs (16,262), resulting in an ERU fee of \$6.92 per month. To facilitate billing, and to partially offset uncollected stormwater fees, the city chose to round the monthly ERU fee to \$7.00 or \$84.00 annually. Properties that are being charged based on the amount of impervious area would be charged accordingly (multiples of ERU, with a minimum of 1 ERU). **Figure 4-6** shows the percentage of total revenue that would be collected from each property class.

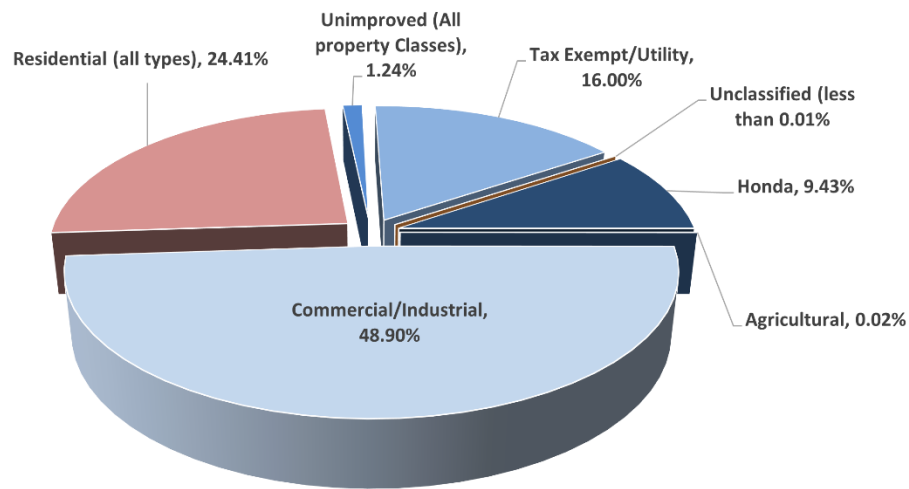


Figure 4-6 Percentage of Revenue by Property Class

The Honda Manufacturing Facility on the west side of the city was a topic of several discussions with the city. Comprising over one-quarter of the area in the City of Greensburg, the nine parcels owned by Honda would have been paying over \$300,000 annually in stormwater fees. The facility also manages stormwater on site, decreasing the impacts to the city's infrastructure. Ultimately, the city decided to charge the Honda properties 0.33 ERU times its total impervious area.

A more detailed summary is included in **Appendix 2**. The summary sheet provides:

- Parcel breakdown by generalized land use, showing number of parcels, number of ERUs, annual and monthly revenues, and percent of the total revenue.
- Charts to provide a quick view of the number of parcels and total revenue by generalized land use.

Interactive fields, highlighted in yellow in **Appendix 2**, were used by the city to explore the impacts of “what-if” scenarios.

RECOMMENDATION #6

It is recommended that the city adopt a stormwater utility rate structure of 1 ERU (flat fee) of \$7 for residential properties, multiples of ERUs (except for Honda where multiples of 0.33 ERUs should be used) for nonresidential properties based on actual impervious area, and 0.33 ERU (flat fee) for unimproved properties.

4.7 FACTORS AFFECTING THE REVENUE

Several factors may influence the overall generation of revenue which may include, but not be limited to, the following:

- **Rate of Non-Payment** – Based on conversations with other Indiana stormwater utilities, it can be expected that as much as 10% of those receiving a stormwater fee bill will be delinquent in their payment or may not pay at all, at least in the first few years. However, collecting stormwater utility fees through the County Assessor’s tax bill system has a better rate of return.
- **Administrative/Enforcement** – The city should expect to receive several inquiries from nonresidential property owners. Responding to these inquiries via telephone calls or emails will require paid administrative staff. Administrative or enforcement costs that are associated with the actual collection of unpaid or delinquent utility bills may further reduce the revenue.
- **Parcel Database Cleanup** – There may be errors in the city’s parcel database that affect the accuracy of billings. Upon taking the time to correct errors in the parcel database, one may discover that contiguous parcels which were once being charged multiple fees, have now been consolidated into one parcel, and therefore, one fee. Additionally, any other inaccuracies discovered during this cleanup process may result in minor changes in revenues.
- **Razed Structures** – Nonresidential property owners who remove structures after the creation of the rate study may bring this to the city’s attention. If the impervious area is reduced (building slab/foundation removed along with the structure), their fee should be recalculated to reflect the new, reduced impervious area.
- **New Structures** – New residential on previously unimproved parcels should be added to the rate structure and billing database. Nonresidential properties with structures built or impervious areas added after the creation of the rate study should have their fee recalculated to reflect the new or larger impervious area.
- **Credits** – The economic incentives the city is offering to reduce nonresidential user fees will reduce the overall revenue generated. The cost associated with administering a system of credits must also be considered.

4.8 UTILITY RATE COMPARISON WITH OTHER JURISDICTIONS

Based on a national survey conducted by the EPA; the typical rate payer fee for a stormwater utility is between \$3 and \$7 per household per month. This range is below the normal customer willingness to pay for a moderate stormwater management program according to the survey. For this reason, a stormwater utility is considered adequate to fund a stormwater program.

To generate revenue to support the stormwater program costs, the City of Greensburg’s monthly stormwater fee will be \$7 for residential properties. This fee is more than the average SFR stormwater fee statewide (\$5.74) but not as high as other stormwater utilities in Central Indiana. The chart in **Appendix 3** compares stormwater utility rates for Indiana and sorts the information by fee type and region.

4.9 USING THE RATE STUDY DATABASE TO DEVELOP A BILLING DATABASE

Using the data provided in the rate study database to develop an actual billing database should be exercised with caution. The rate study database is typically based on the best available data at the time of the study, without much correction or validation, and serves only as a tool to develop a fair and equitable method for calculating stormwater user fees for the general population. The parcel data provided by the Decatur County GIS Department may have inherent errors that must be addressed before proceeding with the creation of an updated billing database. While many of these issues may be minor, the issues may raise points of contention among the rate payers. The points listed below may provide additional insight regarding the potential discrepancies that were discovered during the creation of the rate study database.

- **New Development** – Impervious areas were digitized based on the property classes attributed to each parcel in the supplied parcel data. There exist cases where development has occurred on parcels, but the property classes were not updated to reflect this development. Therefore, digitization of new impervious areas would not have occurred on these parcels.
- **Duplicate Parcel Numbers** – More than one parcel may share the same parcel number. In some cases, the duplicate parcels are contiguous and have the same owner. The parcel numbers should be resolved as the parcel number serves as the unique identifier when constructing the Billing Database.
- **Structures Occupying More than One Parcel** – There are instances where a property owner, who owns two or more contiguous parcels, has built a structure spanning across these parcels. Because fees are determined by parcel, the property owner will be charged separately for each parcel of land upon which the structure spans. If that is not desirable, the parcels will need to be merged into one.
- **Exclusion of Parcels** – There are many parcels (mostly classified as exempt) that were excluded from the analysis because they appeared to be within a road right-of-way or railroad. It is unlikely that resolving and adding these parcels back into the rate study database would affect the overall ERUs and consequently, the calculated fee. These parcels can be placed back into the analysis, if desired.

Appendix 4 includes procedures to update and maintain the stormwater utility billing database through the Decatur County Assessor's Office.

4.10 CAPS AND CREDITS

Caps are used to set a maximum amount that any one rate payer would pay per parcel. This is often viewed by the general population as an unfair distribution of the stormwater fee. There are few communities in Indiana that have included caps in their stormwater utility. Credits (sometimes called economic incentives or stormwater impact reductions) are more common than caps in stormwater utilities. **Appendix 5** includes a Credit Manual that details the practices allowed by the City of Greensburg for nonresidential properties owners to reduce their stormwater fee.

RECOMMENDATION #7

It is recommended that the city not establish caps but establish a basis for credits.

CHAPTER 5: RECOMMENDATIONS & NEXT STEPS

The following is a summary listing of Burke recommendations as part of this Stormwater Utility Rate Study and suggested next steps toward establishing a stormwater utility.

5.1 SUMMARY OF RECOMMENDATIONS

Recommendation #1: It is recommended that the city concentrate funds generated through the stormwater utility on capital improvement projects.

Recommendation #2: It is recommended that the city operate the stormwater utility under the Municipal Sewage Works statute.

Recommendation #3: It is recommended that the city adopt an average annual stormwater utility budget of \$1,350,000 for capital projects, program operation and administrative stormwater costs.

Recommendation #4: It is recommended that the city implement a variable stormwater fee rate structure that is based on impervious area for each parcel of real estate.

Recommendation #5: It is recommended that the city use an equivalent residential unit (ERU) value set at 3,000 square feet.

Recommendation #6: It is recommended that the city adopt a stormwater utility rate structure of 1 ERU (flat fee) of \$7 for residential properties, multiples of ERUs (**except for Honda where multiples of 0.33 ERUs should be used**) for nonresidential properties based on actual impervious area, and 0.33 ERU (flat fee) for unimproved properties

Recommendation #7: It is recommended that the city not establish caps but consider establishing a basis for credits.

5.2 NEXT STEPS

This Stormwater Utility Rate Study is a critical step for City of Greensburg to establish a dedicated funding source to pay for the maintenance, repair, replacement and improvement of the existing and future stormwater system and meet regulatory requirements. The following are the recommended steps to successfully establish a stormwater utility:

Create Capital Project Fact Sheets

A summary of the capital projects to be funded from the stormwater utility. Each fact sheet should include background on the problem, location, description of the solution, estimated cost, timeline and benefits.

Build Public Support

The support of the public and key stakeholders is essential to the successful implementation of the stormwater utility. This includes:

- Raise awareness of the cost to manage stormwater,
- Illustrate the benefits of a dedicated funding source,
- Establish a method to disseminate information and answer questions
- Meet with key stakeholders, including nonprofit organizations and large rate payers, as well as the media to diffuse opposition and dispel myths

Set up the Stormwater Utility

Expand the Board of Public Works responsibility, through the Municipal Sewage Works statute, to include the stormwater utility and adopt the rate structure recommended in this study through city ordinance.

Set up Billing

Assuming billing will be through the county, coordinate with the Decatur County Assessor's Office to add the stormwater utility fee to individual property tax bills. The rate structure database assembled for this study is based on parcel data and the stormwater fees for nonresidential parcels is tied to the unique parcel identification number.

ACRONYMS

BMP	Best Management Practice
CIP	Capital Improvement Project
EPA	Environmental Protection Agency
ERU	Equivalent Residential Unit
GIS	Geographic Information System
SFR	Single Family Residential