



Draft Report

Storm Water Utility Study City of Pewaukee, Wisconsin

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EXECUTIVE SUMMARY

Storm water management has historically developed around a reactive system designed to respond to flooding. As storm water programs have matured, the emphasis was modified to include the operation and maintenance of those systems and new capital improvement projects to proactively respond to flood potential for new development and in areas of existing development. More recently the United States Environmental Protection Agency has required states to address the level of polluted storm water runoff.

The Wisconsin Department of Natural Resources (WDNR), in turn, promulgated NR 216 and NR 151, both unfunded state mandates, to address storm water quality issues. As a NR 216 community, the City of Pewaukee no longer has the right to discharge polluted storm water to area streams without meeting certain requirements as dictated by NR 216 and NR 151 and the city now operates under a storm water discharge permit. One permit requirement is to achieve a 40 percent reduction in total suspended solids (TSS) (as compared to no controls) for "existing" development areas by 2013. Meeting this requirement will require substantial capital improvements and increased levels of operations and maintenance activities. Therefore, as a result of new regulations, storm water costs are increasing.

In addition to water quality and permit requirements, the City of Pewaukee has many areas that experience serious flooding. Heavy rainstorms in the summers of 2008, 2009 and 2010 resulted in dramatic evidence of the flooding problems that exist. There are also stormwater-caused erosion problems documented in the city. In addition, the historical lack of funding for storm water management has led to a backlog of deferred maintenance of the storm water infrastructure.

The challenge now is to develop a reliable funding mechanism to meet state and Federal requirements, improve storm water quality, address serious flooding, erosion and drainage problems, and adequately maintain and repair the storm water infrastructure. The City utilizes several revenue streams to support their storm water management needs including grants, intergovernmental revenue sharing programs, general taxes, and to a limited extent fees and fines. Unfortunately, grants have become more competitive and available at lower funding limits and intergovernmental revenues have decreased significantly since 1995, thus putting more emphasis on taxpayers to fund the public service activities of the City. New tax levy limits further restrict the City's ability to add new costs to the tax levy.

An alternative to fully relying on these funding sources is a storm water utility. A storm water utility (user fee system) is an alternative funding mechanism being implemented throughout the State of Wisconsin. The strength of a utility is the shift from heavily relying on parcel assessments, which has no correlation to the storm water services provided, to a user fee system that fairly and equitably relates charges to each parcel based in their relative impact on the storm water system. A storm water utility operates similarly in many ways to other utilities, such as water and sanitary sewer/wastewater, where estimated use of the system is correlated to the cost of providing each parcel with a service. Storm water utility methodology and discussion is included in Section 3 of this report.

After reviewing the various rate methods available in a storm water utility, the current recommendation is to create a user fee with charges based on parcel impervious areas. The charge would vary depending on the extent of development as guided by the Equivalent Runoff (or Residential) Unit (ERU) method. This method establishes the value of one (1) ERU as equivalent to the average impervious area of single-family residential properties within the City of Pewaukee (established in this study as 5,339 square feet).

To further provide a fair and equitable fee system, single-family residential properties are grouped into tiers based on zoning classification. Residential zoning was found to correlate well with the average impervious area (and therefore stormwater runoff generation) and anticipated cost of services for the different groupings evaluated. Three residential tiers are recommended, resulting in 0.75, 1.1 or 1.3 ERUs depending on the tier. Duplexes as analyzed during this study and based on other municipalities would be allocated 1.1 ERUs. All other developed properties have a unique ERU value established for them based on measured impervious area from aerial photography.

Based on an analysis of the storm water management needs and the number of customers and ERUs available, the monthly ERU charge necessary to create a self-sustaining storm water utility is \$10 per ERU. Details on the methodology are contained in Sections 4 and 5 of this report.

The authority to establish a storm water utility in the City of Pewaukee is specifically identified in the State of Wisconsin Statutes and does not require approval of the Wisconsin Public Service Commission. To enact these authorities, the city must adopt an ordinance that establishes the details of the utility. A rate resolution and credits resolution typically accompany the local adopting legislation. The user fee is then incorporated into an existing billing system such as the city sewer bill. Implementation details are included in Section 6 of this report.

1.0 STORM WATER MANAGEMENT ISSUES

Storm water management issues can be generally grouped into two areas; water quantity and water quality. High levels of the quantity of storm water runoff can cause flooding, erosion and drainage problems. Particles and pollutants found in storm water runoff decrease water quality, leading regulators such as the Wisconsin Department of Natural Resources to issue regulations and permits relating to storm water quality.

1.1 Flooding

Major flooding occurred in the City of Pewaukee in the summers of 2008, 2009 and 2010. However, little funding has been available to perform the planning, design, construction, operations and maintenance efforts needed to mitigate flooding problems.

Some of the known flooding problem areas in the city include:

- Takoma Hills / Lexington Drive
- Kathryn Court / Springdale Road
- Hill n Dale subdivision
- Emerald Acres Condominiums and Green Road
- Edgewood Farms / Prospect Avenue swale and road overtopping
- Elmwood and North Avenue
- Green Road / STH 74
- Hillside Grove storm water and swales
- Oak Street / Peninsula Drive
- Easement at Rose Ann Maids swale (Bluemound Industrial Park)
- Gun Club area along Watertown Road
- Bluemound Industrial Park near Northmound Drive
- Valley Brook subdivision
- Woodland Drive / Miami Drive
- Busse Road
- Northview Road
- South Park

A storm water utility will provide greater funding to address these flooding problems. It should be cautioned that it may not be possible to address all flooding problems, even with funding from the storm water utility. Flooding from Pewaukee Lake and area rivers may require a watershed-wide approach to mitigate, requiring joint action with other municipalities and stakeholders. Not all flooding problems may have a feasible technical solution and/or politically acceptable solution. But many of these flooding problems could be mitigated with capital improvements.

Historically, it has been difficult to fund storm water capital improvements from the City's general budget. The City's assessment policy has also led to storm water capital projects getting canceled after property owner objections to proposed assessments.

1.2 Erosion and Local Drainage Issues

Urban and suburban storm water flows often increase erosion in roadside ditches, other manmade channels, and natural waterways. This erosion can threaten public safety, damage property and infrastructure, and harm downstream water quality. Erosion problems occur throughout the City of Pewaukee. Notable erosion problem areas including Woodside Drive and Meadowbrook Farm/Arrowhead Trails.

The City receives numerous complaints about poor drainage in roadside swales and other components of the storm water drainage system. In some cases, deferred maintenance on the City’s ditch, storm sewer and culvert system may lead to localized drainage problems.

1.3 Water Quality

Water quality problems occupy an increasingly prominent role in the public's awareness and in environmental legislation. Storm water discharges and other factors have a direct impact on the level of pollution in the rivers and lakes and can result in beach closings and degraded water quality of surface and ground water which is the source of drinking water. Recent studies have shown that runoff from urban and industrial areas typically contain pollutants that are harmful to humans and, at times, toxic to the environment. Pollutant levels in storm water have sometimes been found to exceed those in wastewater. Pollutants typically contained in storm water runoff include heavy metals, fertilizers, pesticides, herbicides, bacteria, nutrients, oils, and grease. Storm water from the City of Pewaukee drains to water bodies such as Pewaukee Lake, the Pewaukee River, the Fox River and Spring Creek.

The storm water permit from the WDNR (detailed in the following section) requires municipalities to implement best management practices (BMPs) that will improve water quality. In addition to this regulation, NR 151, which contains a set of water quality performance standards applicable to the majority of the State of Wisconsin, includes an additional provision for permitted municipalities that requires municipalities to estimate their contribution of nonpoint source pollutants to receiving waters and implement a system of BMPs that will provide a reduction in pollutants, measured through computer modeling as total suspended solids (TSS), of 40 percent by the year 2013. This can require significant increases in operation and maintenance and most likely capital costs to achieve.

1.4 Storm Water Permit

In Wisconsin, the WDNR is responsible for carrying out the federal storm water management program (40 CFR, part 122) based on the 1987 amendment to the Clean Water Act. The WDNR developed an administrative code to implement the program (commonly referred to as “NR 216”). Hundreds of Wisconsin municipalities have received municipal storm water discharge permits and are regulated under the NR 216 program, either through individual permits, group permits, or a general “Phase II” permit that applies to many municipalities.

The City of Pewaukee is part of the Upper Fox River Watershed Group permit with seven other communities as listed in Table 1-1. The second five-year permit period started on October 30th, 2009 and is set to expire on October 29th, 2014.

**TABLE 1-1
 UPPER FOX RIVER WATERSHED GROUP**

UPPER FOX RIVER WATERSHED NR 216 PERMIT MEMBERS
City of Pewaukee
City of Waukesha
Village of Pewaukee
Village of Sussex
Town of Brookfield
Town of Delafield
Town of Lisbon
Town of Waukesha

Conditions of the storm water permit are listed in Table 1-2 as adapted from page 17 of the permit. In addition to the specified requirements, a community may be required to implement both nonstructural and

structural BMP's necessary to achieve the required TSS reductions. Nonstructural BMP's include adoption and enforcement of erosion control, development and enforcement of construction and post-construction storm water management ordinances, development and implementation of a public information and education program, and can also include increased catch basin cleaning and street sweeping. Additional structural BMPs such as the construction or modification of detention basins or other water quality devices will also likely be required to achieve the TSS reductions.

**TABLE 1-2
 STORM WATER PERMIT COMPLIANCE SCHEDULE SUMMARY**

PERMIT CONDITION	ACTIVITY	DUE DATE
Impaired Water Bodies - Part I.F	Develop a strategy to reduce the pollutants of concern entering impaired water bodies from the municipal storm sewer system	March 31, 2011
Public Education and Outreach - Part II.C	<p>Continue existing public and staff education and outreach programs, including, at a minimum:</p> <ul style="list-style-type: none"> • Promote detention and elimination of illicit discharges • Inform and educate the public to facilitate the proper management of materials that may cause storm water pollution • Promote beneficial onsite reuse of leaves and grass clippings and proper use of lawn and garden fertilizers and pesticides • Promote and demonstrate the management of streambanks and shorelines by riparian landowners • Promote infiltration of residential storm water runoff • Promote environmentally sensitive land development designs by developers and designers • Inform and educate those responsible for the design, installation and maintenance of construction site erosion control practices and post-construction storm water management practices on the benefits and maintenance of these practices. • Identify industries / businesses and activities that may pose a storm water contamination concern, and where appropriate, educate specific audiences on methods of storm water pollution prevention. Promote appropriate infiltration or treatment of commercial and business park storm water runoff from rooftop downspouts, parking areas and sidewalks. • Inform / educate contractors and operators of private snow removal / deicing on large or commercial parcels of the potential impacts of snow removal activities on wetlands, waterways and construction storm water facilities. • Provide internal staff training and education. 	Ongoing

Illicit Discharge Detection and Elimination - Part II.C	1. Dry weather field screening of priority outfalls	Minimum of once per year
	2. Dry weather field screening of all other major outfalls	At least once every three years
	3. Enforce the Illicit Discharge and Connection Storm Water Ordinance	Ongoing
Construction Site Pollutant Control - Part II.D	1. Enforce the construction site pollutant control ordinance	Ongoing
	2. Construction site inspection, documentation and enforcement	Ongoing
Post-Construction Storm Water Management - Part II.E	1. Enforce the post-construction storm water management ordinance	Ongoing
	2. Continue procedures for long-term maintenance	Ongoing
Pollution Prevention - Part II.F	1. Inspection and maintenance of structural storm water management facilities	Ongoing
	2. Inventory of storm water facilities	March 31, 2011
	3. Catch basin cleaning	Ongoing
	4. Street sweeping	Ongoing
	5. Winter Road Management Plan Revisions	March 31, 2011
	6. Proper collection and disposal of leaves and grass clippings	Ongoing
	7. Storm Water Pollution Plan for public works yard, garages, or other municipally owned properties	March 31, 2011
	8. Inspection of all Department of Public Works yards, garages, and other municipally owned properties	Full inspection annually beginning March 31, 2011 Visual inspection semi-annually beginning March 31, 2011
	9. Application of lawn and garden fertilizer on municipally controlled properties, with pervious surfaces over 5 acres each, in accordance with site-specific nutrient application schedule based on appropriate soil tests	Ongoing
Storm Water Quality Management - Part II.G	1. Assessment of compliance with 40% TSS reduction requirement	June 30, 2011
	2. 40% reduction in TSS load	March 10, 2013 (probably will be extended by NR 151 revision)
Storm Sewer System Map - Part II.H	Maintain a current storm sewer system map	Ongoing
Annual Report - Part II.I	Submit annual reports	March 31 of every year

2.0 STORM WATER MANAGEMENT PROGRAM

In order to address the storm water management needs discussed in Section 1, numerous elements of a storm water management program are needed. Currently, the City of Pewaukee storm water management program has very limited funding. In 2009, the City spent approximately \$70,000 total on all elements of the storm water management program, excluding staff time and related personnel costs. The lack of funding directed to storm water management has led to a backlog of system maintenance needs, a lack of ability to address flooding, drainage and erosion problems, and a funding shortfall in meeting DNR permit / water quality requirements.

This section will describe both the City's existing storm water management program, and the program that is needed and would be funded by the proposal utility to adequately meet the needs.

2.1 Department of Public Works

The Department of Public Works has primary responsibility for the City's storm water management program. Storm water management responsibilities are divided among several divisions within the Department of Public Works.

2.1.1 Engineering Division

The City's engineering division provides the City with storm water related engineering, management and inventory services. The engineering department is also responsible for storm water discharge permit (NR 216) compliance.

The engineering division includes three employees:

- City Engineer (who also serves as Director of Public Works)
- Assistant City Engineer
- Engineering Technician

It is estimated that 15% to 20% of the engineering department's time is currently spent on storm water management activities. This percentage is limited by all of the other duties and responsibilities of the Engineering Division.

Should the storm water utility be implemented at the proposed funding level, the City would likely hire an engineer who would devote most of their time to storm water management. This staff position would perform engineering work for the flood mitigation, water quality and drainage maintenance projects. Although other City engineering staff and consultants would continue to perform some storm water engineering work, a staff engineer with most hours dedicated to the storm water management utility would be needed to handle the technical workload of the utility.

2.1.2 Highway/Streets Division

The highway/streets division includes these employees:

- Superintendent
- 4 Highway/Streets Crew Workers
- Mechanic

The employees of the highway/streets division have primary responsibility for storm water infrastructure maintenance, repair and operations, which will be discussed more in a following section. Because the

employees of the highway/streets division must spend most of their work time on non-storm water operations, the resources of this division to perform system maintenance, cleaning and repair is limited. If the storm water utility is implemented at the proposed level, additional labor hours for the highway/streets division would be funded so that the deferred maintenance backlog of the storm water system can begin to be addressed.

2.1.3 Administrative Support

A clerk (0.8 FTE) provides administrative support for current storm water management activities. Similar to the engineering staff, it is estimated that 15% to 20% of this clerical/administrative time is spent on storm water management, since they have many other duties.

2.1.4 Maintenance of Storm Sewer and Drainage System

The Department of Public Works is responsible for maintaining and repairing the city's storm water system. This includes the repair and maintenance of storm sewer mains, culverts, outfalls, manholes, catch basins, ditches, waterways, and other assorted features.

Storm sewers in the city vary from 6 to 66 inches in diameters. There are approximately 27 miles of storm sewer and road culverts in the City. This does not include private storm sewer or driveway culverts. Associated with this City-owned storm sewer is a large number of inlets, catch basins and manholes that the City must maintain, clean and repair. The estimated number of these storm water structures is 1,500. There are an estimated 98 miles of roadside ditches and swales within the City (counting both sides of the streets).

The City also owns and is responsible for the maintenance of several detention ponds. Most detention ponds in the City are privately-owned.

It should be noted that the above data on system size, such as length of storm sewer and ditches, is an estimated based on available mapping. Should the storm water utility be adopted, it will be used to fund updates to the system mapping so that the City has an accurate assessment of the location, size and condition of its storm water infrastructure. This mapping will include both field work (such as surveying and GPS location) and office work (establishment and maintenance of a storm water Geographic Information System).

Because of funding limitations, only a small amount of routine maintenance and emergency repairs are currently done to the storm water infrastructure. This has led to a large amount of deferred maintenance. If the storm water utility is adopted at the proposed funding level, resources will be available to provide a higher level of infrastructure upkeep. This would include tasks such as:

- Storm sewer cleaning and maintenance
- Catch basin cleaning and maintenance
- Curb and gutter repair
- Ditch maintenance and brush removal
- Culvert repairs and replacement

2.1.5 Other Public Works Storm Water Related Operations

The Department of Public Works is responsible for the sweeping of City of Pewaukee-owned streets within the city limits. The goals of this activity are improved safety, water quality, and community appearance. Currently, arterial streets are swept one per week for one and a half months in the early spring. All other streets are swept once in the spring. All streets with curb and gutter are swept again at least one time in the summer. If time permits, streets with curb and gutter are swept a third time in the

summer. Should the storm water utility be funded at the proposed amount, utility funds would be used to purchase a needed replacement street sweeper.

Utility funds are also budgeted to partially fund the purchase of a Cruz Air excavator, needed to do roadside ditch maintenance and other storm water infrastructure maintenance. The storm water utility would also fund percentages of the O&M and replacement costs for certain other Public Works equipment, according to the percentage of time the equipment is used for storm water management purposes.

The storm water management utility would also fund a portion of the operations and maintenance costs of the public works yard, according to the estimated percentages that various portions of the yard are used for storm water management purposes. In addition, improvements at the public works yard are required to meet the City's NR 216 water quality permit. To date, these improvements have not been implemented, because of a lack of funding.

2.2 City Departments and Services (aside from Public Works)

The Department of Public Works has primary responsibility for the management, engineering and operations of the storm water program, and the proposed storm water utility would operate as a part of Public Works. Other City departments provide assistance in storm water management activities from time to time. Departments that may perform some storm water related activities, or assist the Department of Public Works in its storm water operations, include:

- Administration
- Building Services
- Clerical/Treasury/Finance
- Planning

If staff or resources of these or other City departments are performing significant storm water management activities that require funding, the storm water utility budget could potentially be used as a funding source for those activities.

2.3 NR 216 Permit Compliance Costs

As described in Section 1 of this report, the city's storm water discharge (NR 216) permit includes a schedule of submittals and activities that require city resources to comply with this program. The focus of this permit program is to improve receiving water quality by reducing pollution from storm water discharges in the city. Some current city activities such as catch basin cleaning and street sweeping provide a water quality benefit and have been funded by the city for years. Other items such as development of an information and education program and development and implementation of dry weather (illicit discharge) monitoring programs are newer activities and require funding beyond what was traditionally expended by the city.

The city has been able to use existing resources to comply with the permit requirements that have been due so far. However, upcoming permit deadlines require funding and resources above the current funding levels of the storm water program. One of the costliest components of permit compliance is the need to reduce the city's total suspended solids (TSS) load from stormwater by 40% by the year 2013. The 2013 deadline will probably be extended by administrative rule revisions currently under consideration by state government. Even if the deadline is extended, the city is required to have a detailed plan for compliance by June 2011, and the DNR will expect that regular progress is made in reducing the city's TSS load. Reducing the TSS load will likely require a combination of capital construction projects and nonstructural/O&M practices.

In addition to reducing the TSS load, other NR 216 permit requirements that are recent and will require new funding include:

- Detention pond field inventories and inspections
- Upgrades of the storm sewer system map
- Updates and implementation of the Municipal Yard Storm Water Pollution Prevention Plan
- Increased information and education programs
- Development of strategies to mitigate storm water loads to impaired waters

2.4 Capital Improvements

The city is responsible for an extensive system of storm sewers, ditches, inlets, and other devices that convey, store, and treat storm water runoff. Capital improvements to the storm water infrastructure have been very limited because of a lack of funding.

Many of the flooding, drainage, erosion and water quality needs described in Section 1 of this report will require capital improvements. Flood control improvements include detention basins, conveyance improvements (such as larger storm sewers, culverts or open channels), or floodproofing. Water quality improvements such as storm water detention facilities, bioretention basins, and treatment devices will likely need to be implemented in future years to meet the WDNR mandated 40 percent TSS reductions. Addressing ditch and streambank erosion will require significant construction projects in some situations.

To meet these needs, the draft storm water utility cash flow analysis (Table 5-1) includes a list of capital projects projected over the next 10 years.

3. STORM WATER USER FEES

3.1 Introduction

The accumulated runoff from all parcels within the city must be managed in an organized and systematic manner if owners are to enjoy the full-expected use of their property. The burden of the management of storm water discharged to public infrastructure is the responsibility of the city. Construction and maintenance of facilities to properly manage storm water is an expensive and long-term obligation. Each parcel that is tied to this system benefits from this investment.

Storm water management efforts do not usually compete well with other important programs for city funds, resulting in budget competition for the money that is available through the tax revenue structure. In addition, recent concerns over the potential reduction or elimination of the state shared revenue and tax levy controls will further hurt the city's efforts to meet the growing obligations of storm water management. The city will have to increase expenditures for storm water in order to meet the city's storm water management obligations and responsibilities. These include:

- Activities that will be required to comply with the NR 216 storm water permit.
- Implement capital projects to further manage storm water quality to meet WDNR TSS reductions.
- Mitigate flooding problems experienced in many areas of the City
- Address the backlog of deferred maintenance of the storm water infrastructure system

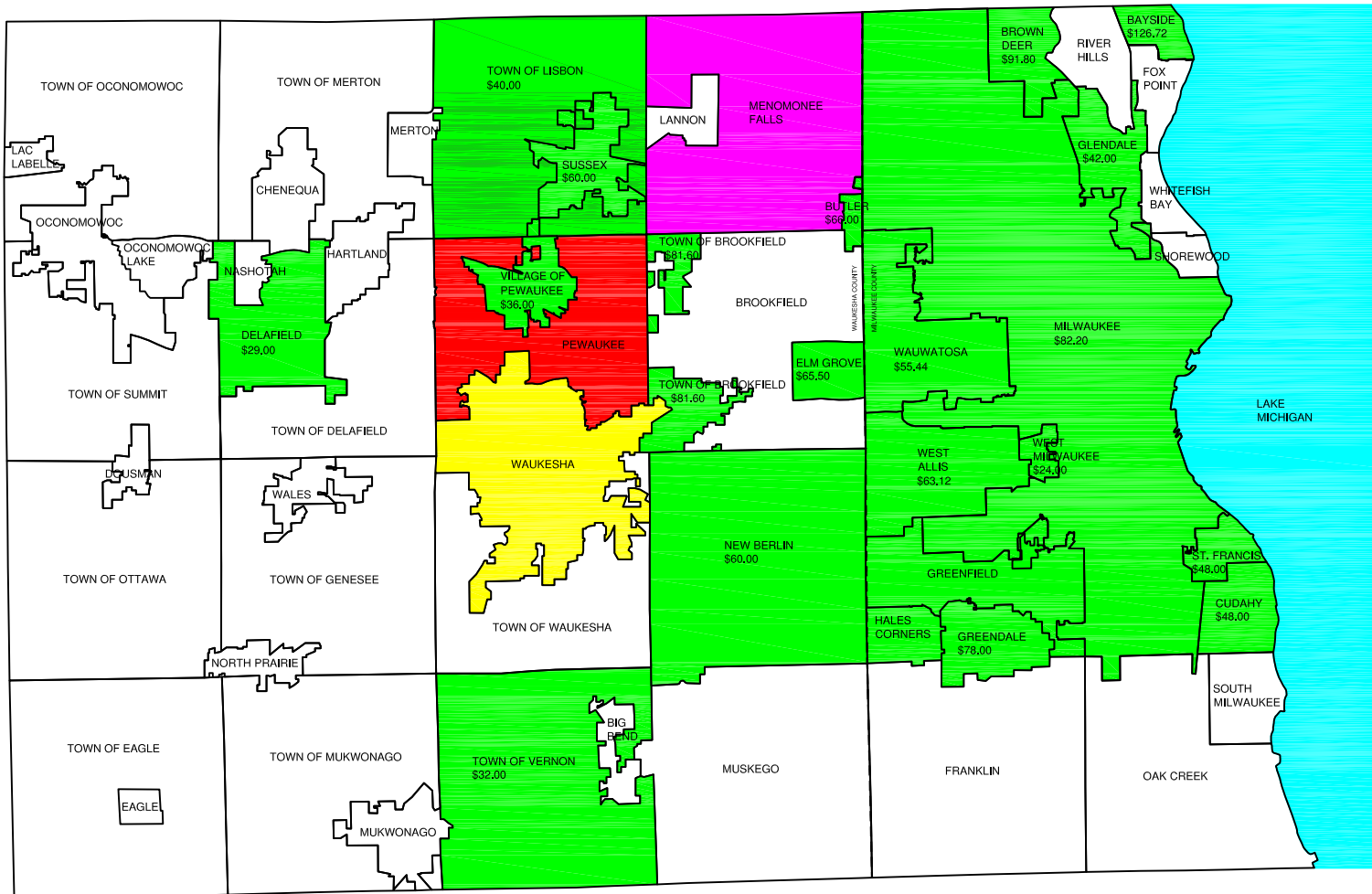
The existing system of funding storm water management with property taxes has little to no relationship to storm water problems created by a parcel or the costs associated with the services to safely collect, convey, treat, and dispose of storm water runoff. Storm water user fees are a funding alternative developed to allocate the cost of storm water management based on:

- The relative cost of services received, and
- The impact of storm water runoff from each land parcel in the storm water management service area.

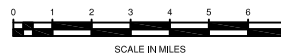
In addition, a user fee system provides a dedicated long-term funding that is necessary for community-wide control and management of storm water.

The concept of the storm water utility was developed in the western U.S. in the mid 1970's. Since this time, hundreds of municipalities (Bellevue, WA; Miami, FL; Louisville, KY; Denver, CO; Sacramento, CA; and Austin, TX, are just a few examples) have adopted ordinances to initiate a storm water utility. In 1994, the City of Lake Delton approved legislation establishing the first storm water utility in Wisconsin. Since that time, the Cities of West Allis, New Berlin, Milwaukee, Greendale and Greenfield, and the Villages of Pewaukee and Hales Corners are a few of the more than sixty Wisconsin communities that have established utilities to date. Figure 3-1 shows municipalities in Milwaukee and Waukesha Counties with storm water utility user charges in place and recent rates as of the time of this report.

MILWAUKEE AND WAUKESHA COUNTIES MUNICIPAL STORMWATER USER CHARGE



- LEGEND
- MUNICIPALITY WITH STORMWATER FEASIBILITY STUDY
 - MUNICIPALITY WITH STORMWATER AD VELOREM (TAX)
 - MUNICIPALITY WITH STORMWATER USER CHARGE



3.2 Effects of Impervious Cover

Several factors influence the amount, rate, and quality of storm water runoff generated by a particular parcel of land including:

- parcel size,
- soil type,
- topography,
- land use,
- position in the watershed, and
- the density (intensity) of parcel development.

Homes where we live, roads that we drive on, businesses where we shop, and places where we work, create impervious area that increases the volume and speed of storm water runoff and often is contaminated with pollutants that are washed off impervious surfaces. Urbanized growth within the city replaces permeable soil and vegetative cover with impervious surfaces, such as homes, businesses, industries, sidewalks, parking lots, and roads. This increases the volume of storm water runoff and decreases infiltration.

Because impervious area is one of the most important parameters used in storm water planning and design, rate structures developed for storm water utilities typically focus on the amount of impervious area to determine the relative contribution to the storm water management problem for each utility customer. In addition, impervious area is easily quantified. Therefore, it has become accepted as a means to equitably allocate the cost of storm water management. A parcel's impervious area is made up of surfaces that have either been compacted or covered with a material (including structures) that is highly resistant to the infiltration of water.

Impervious area not only increases the volume of storm water runoff, but it also increases the rate (cubic feet per second) at which runoff leaves the site if unmitigated. Impervious areas such as concrete and asphalt are very efficient at moving runoff. They are hydraulically smooth. Grassed or otherwise vegetated areas resist the movement of water (hydraulically rough), holding back runoff from leaving the site and allowing it to infiltrate into the soil.

Research in flood/storm water analysis used in storm water planning and design has shown that the amount of impervious area is one of the most important parameters determining runoff characteristics. Research indicates that streams generally show the adversity of development when impervious area in the watershed reaches ten (10) percent. This is equivalent to a watershed with residential development of two-acre lots. Most indicators of stream quality shift to poor once the impervious area in the watershed reaches around 25 to 30 percent, which is equivalent to medium density residential lots. It is the amount of impervious area that is the primary driving factor for storm water facilities such as storm sewers, ditches, and detention ponds. Therefore, the city's storm water management program has been developed around the planning, designing, construction, and maintenance of infrastructure for managing the runoff from impervious areas.

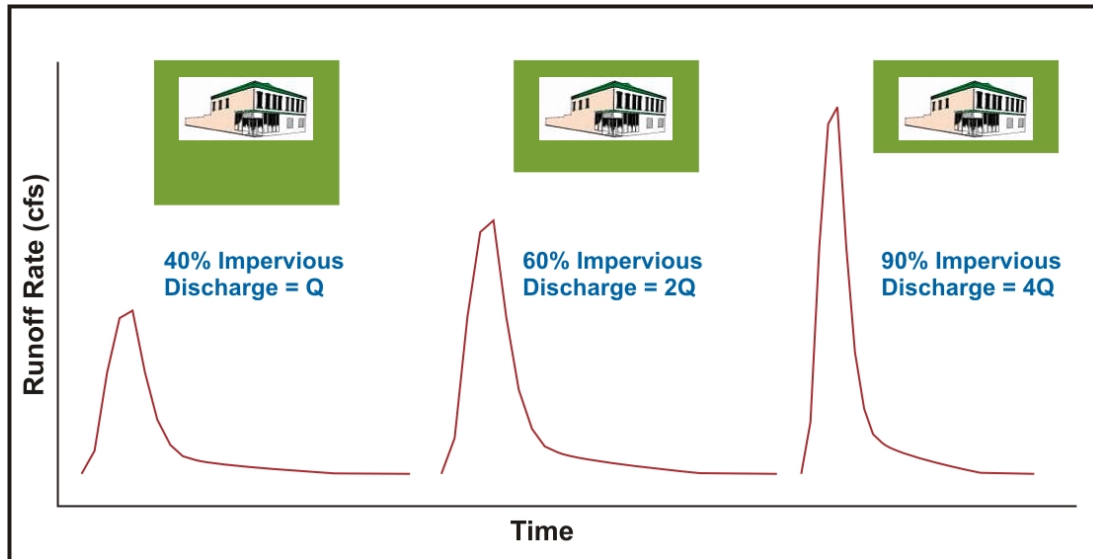
3.3 Effects of Parcel Density

The increase in impervious area and the effect of parcel density (measure of how intensely the parcel is developed) can result in the total annual runoff volume increasing by as much as 200 to 300 percent for residential development to over 500 to 600 percent for commercial/industrial development. With more intense the development comes greater the runoff. Increased impervious area reduces the amount of rainfall soaking into the ground to replenish the groundwater. One of the many affects is the "drying up" of small streams fed by groundwater.

This concept is illustrated with three (3) lots, each with the same amount of impervious area, as shown in Figure 3-2. The lots vary in the amount of grassed (pervious) area. Moving from left to right, the percent of impervious area increases as the amount of pervious grassed surfaces goes down. As runoff discharges from each lot, the grassed areas slow down the runoff from the impervious areas down, lowering the rate at which it leaves the site and enters the City's storm water management system. It is not uncommon for the changes in discharge rates to be twice, four (4) times, or more for sites with high percentages of impervious areas over those with more grassed pervious areas.

Most storm water management facilities are designed to handle a certain peak discharge rate of storm water runoff. Therefore, the intensity of development can be an important factor in determining the impact on the city. Greater amounts of impervious area mean greater volume of storm water runoff, and greater percent of impervious area means higher runoff peaks. Both result in the demand for a higher level of services to properly collect, convey, store, treat, and dispose of storm water runoff from these sites.

FIGURE 3-2
IMPACT OF THE INTENSITY OF DEVELOPMENT ON PEAK RUNOFF RATES



3.4 Unit of Measure

The unit of measure used to determine the relative impact to the storm water management system of a parcel of land is the Billing Unit. The Billing Unit is often referred to as an Equivalent Runoff or Equivalent Residential Unit (ERU). An ERU is typically defined as the average impervious area of a single-family (or other residential based dwelling unit) and includes impervious surfaces such as patios, driveways, sheds, and the like. The ERU base unit is often chosen for the user fee system because it contains the largest group of customers and one that is fairly uniform in size. Additionally, the cost of maintaining storm water facilities for single-family parcel does not vary significantly. Therefore, this group provides a good base for comparing the runoff potential for other developed parcels. Some municipal storm water utility rate structures modify the ERU by incorporating factors such as land area, percent of impervious area, pollutant factors, slope, and other parameters.

3.5 Fairness and Equity

Fairness and equity of the storm water user fee system is an advantage to all rate payers. Historically, communities have paid for storm water management with ad valorem tax revenues. Ad valorem taxes are based on property value and the tax status of the parcel owner (exempt/nonexempt), neither of which is related to storm water runoff or the water quality of runoff. Storm water user fees, on the other hand, are generally based on a parcel's relative storm water contribution but can be composed of multiple charge components.

The storm water customers who generate larger amounts of storm water runoff pay proportionally more than other customers. There is a high correlation between the impervious area used to establish the rate structure for a storm water user fee system, and the quantity and often quality of storm water runoff. This correlation is measurable and therefore, to some extent, easier to understand and more controllable for the customers and illustrates the concept of an equivalency charge (EC) where equal areas of imperviousness are charged the same (unless mitigated – see the discussion on credits later in this report). Decisions to add new impervious areas (or to remove areas) can now be weighed against the capital costs to develop those areas and the long term fee impact associated with those areas.

When accounting for storm water management costs, equity is achieved among the rate payers by basing the storm water utility fee on the user's relative runoff contribution and the cost associated with the established level of service provided by the city. This approach is consistent with other types of user fees in that the fee is based on the rate of use (potable water), or generation rate (solid waste or sanitary sewerage). Like other user fees, the rate is independent of the user's distance from the facility providing the service such as a well, treatment plant, landfill, or detention pond.

In many utilities (water, wastewater, and storm water), there is a base charge (BC) for all customers and in some cases, another rate structure for users with additional services. For example, a parcel owner may be charged a flat base charge for the first 6,000 gallons of water consumed or the first 32-gallons of garbage picked up or merely to reflect the availability of a service or a base level of service regardless of the quantity of service provided. Or a base charge may be implemented to recover administrative and other costs that are not as directly impacted by activities on a parcel. The base charge is one method to simplify rate structures while balancing complete equity with the need to keep the administration costs to a minimum.

Additional services are often reflected by a special charge (SC) to only specific properties that are impacted by a particular set of circumstances that deem it necessary to include an additional rate component. For storm water, this could be an additional charge to an area that has exceptionally great needs or cost when compared to the revenue generated from the service area. An example of this could be a regional storm water management facility that is implemented to serve a specific area where it is felt that it is more equitable to allocate some or all of the cost only to those served and benefited by the facility. The SC can be based on the same methodology used to develop the EC, or in a different manner if it is considered more equitable.

3.6 Expected Benefits

The user fee system strives to allocate program costs to each of these classes equitably according to: 1) a user's relative impact (quantity, quality, or both factors) on the storm water management system; and 2) the services received. The many services received by both developed and undeveloped landowners in a comprehensive storm water management program results in a variety of direct and indirect benefits including:

- Compliance with the conditions of the NR 216 storm water permit.
- Reduced non-point source runoff pollution.
- A community that is more informed on the problems caused by storm water runoff.
- Enhanced water quality in area rivers, streams, and lakes.
- Improved health of stream biology.
- Improved maintenance of existing infrastructure.
- Maintenance of environmentally sensitive lands.
- A community-wide approach to flood control and drainage.

Under the storm water user fee system, some of the costs of storm water management are typically redistributed from the single family residential homeowner to the commercial, industrial, and tax exempt customers when compared to an equivalent level of service based on financing through taxation. This more accurately reflects the second group's greater contributions to the problems and costs of providing storm water management.

4.0 RATE STRUCTURE DEVELOPMENT

The rate structure must be developed in a fair and equitable manner. Charges levied against the customer must be representative of the cost the city incurs in providing services to that customer. The city is given the authority to levy storm water charges by state statute. The Wisconsin Public Service Commission (PSC) is not involved in the review or approval during the development of a storm water utility, unlike many other utilities, but can become involved in challenges to the utility.

Rate structures for the storm water utility are developed around two (2) themes. The first theme is the “user pays” concept and the second theme involves the balancing of simplicity and equity.

As a user fee system, the rate structure for the storm water utility asserts that the fairest rate structure is one that recovers costs incurred from the burden placed upon the system by the user. Burden can be measured in terms of the magnitude of the runoff volume, rate, and quality from a user's parcel into the city's system from direct calculation or related surrogates. The rate structure must reflect the concept that the greater the burden imposed on the system, the more the individual customer pays.

One possible rate structure would consider every conceivable factor that might be found to influence the volume, rate, or water quality of runoff generated by a parcel. However, such a design would be expensive to develop and administer due to the data requirements. The key is to strike a balance so that enough factors are considered to be fair, while simplifying the administration to make it practical to maintain.

4.1 Steps for Developing Rate Structure Components

Rate structures for storm water utilities are tailored to reflect the characteristics of the parcels within a community and the services provided. The City has various data sets in database or graphical format. Information in the database from the assessor includes parcel tax ID, parcel address, owner address, assessment data (parcel type, lot size, building first floor square footage, total value), parcel description, and other information.

Developing rate structure components is a 2-step process. Step one (1) asks which group of customers should pay for what services. This is called the “cost apportionment” step. The second step is the “parcel apportionment” step, where the basis for allocating the cost to each parcel is determined.

Storm water utilities offer a wide range of services: flood mitigation, water quality protection, and system maintenance, just to name a few. Not all services are necessarily provided evenly throughout the service area of the storm water utility. Rate structures should consider the variation in costs of services one area might have over another (cost apportionment). For instance, in some less developed, more rural areas, the storm water system is relatively simple, being comprised of a network of ditches and culverts discharging into lakes and streams. In contrast, more urban areas may have a more complex network of storm sewers, and detention ponds. However, the greater distance between customers in a rural area may result in a longer system to be maintained per customer, making it just as costly as it is to maintain the smaller but more complex urban system or, when reviewing the revenue generation of each area, it may be that the amount of revenue generated in each area is commensurate and equitable when compared to the need/cost in each area.

Most services are generally apportioned out to all customers based on a single comparative measurement such as impervious area. This is commonly referred to as an equivalency charge (EC). In this system of charges, equal impervious areas pay equal amounts regardless of where they are within the municipality. Parcel apportionment focuses on developing a standard billing unit for determining each customer's share of recoverable costs that are more impacted by parcel based activities and is often reflected in the establishment of the equivalency charge (EC). The EC is typically based on the standard Equivalent Residential or Runoff Unit (ERU) developed for each municipality. An ERU is a measure that serves as a common index to compare runoff generated by each utility customer.

In extreme cases where unique services are required or where extensive storm water management measures are needed, the cost to provide these advanced services is not always fairly distributed throughout all rate payers in the city. This method of apportionment is often referred to as "Service Areas". Service Areas can be managed through use of a special charge (SC) designation or as a rate modifier to the equivalency charge (EC).

Conversely, some services may be more system-wide, such as administration, engineering, and compliance with the city's permit requirements and are more removed from parcel based activities and therefore more equitably shared equally throughout the municipality and are sometimes segregated into a base charge (BC). Each of these three potential rate components is described further in the following sections.

4.2 Base Charge (BC) Rate Component

The BC is used to reflect the fact that all parcel owners benefit from the storm water management activities of the city, that all parcels contribute some level of storm water runoff (quantity burden) and pollution (quality burden), and that some city storm water management expenditures such as administrative, permitting, and other components are more removed from parcel based activities (and impervious area) and therefore more equitably shared equally throughout the municipality. Other utilities often use a BC to reflect the availability of service. This generally leads to more complex billing systems and often includes undeveloped properties. Because of this, most storm water utilities elect to not use a base charge component and will often use this concept by segregating a portion of the EC as a non-creditable amount that essentially has the same effect but also maintains continuity with the ERU distribution.

4.3 Equivalency Charge (EC) Rate Component

Many of the services that are currently provided by the city increase in direct response to the amount of development and can be reflected by using impervious area as the measurement of this demand on the system. Impervious area, more than other parameters (soil, topography, etc.), influences the volume of storm water runoff leaving the site. Unless mitigated, as the amount of impervious area increases and the percent of impervious area increases, the peak discharge rate of storm water also increases. Both of these factors result in larger facilities, increased demand for maintenance, and generally increased pollution. Therefore, the recommended rate structure for the EC should be based on the impervious area of an individual parcel. This is also a relatively easy concept to relate to customers and is a parameter that can be directly measured.

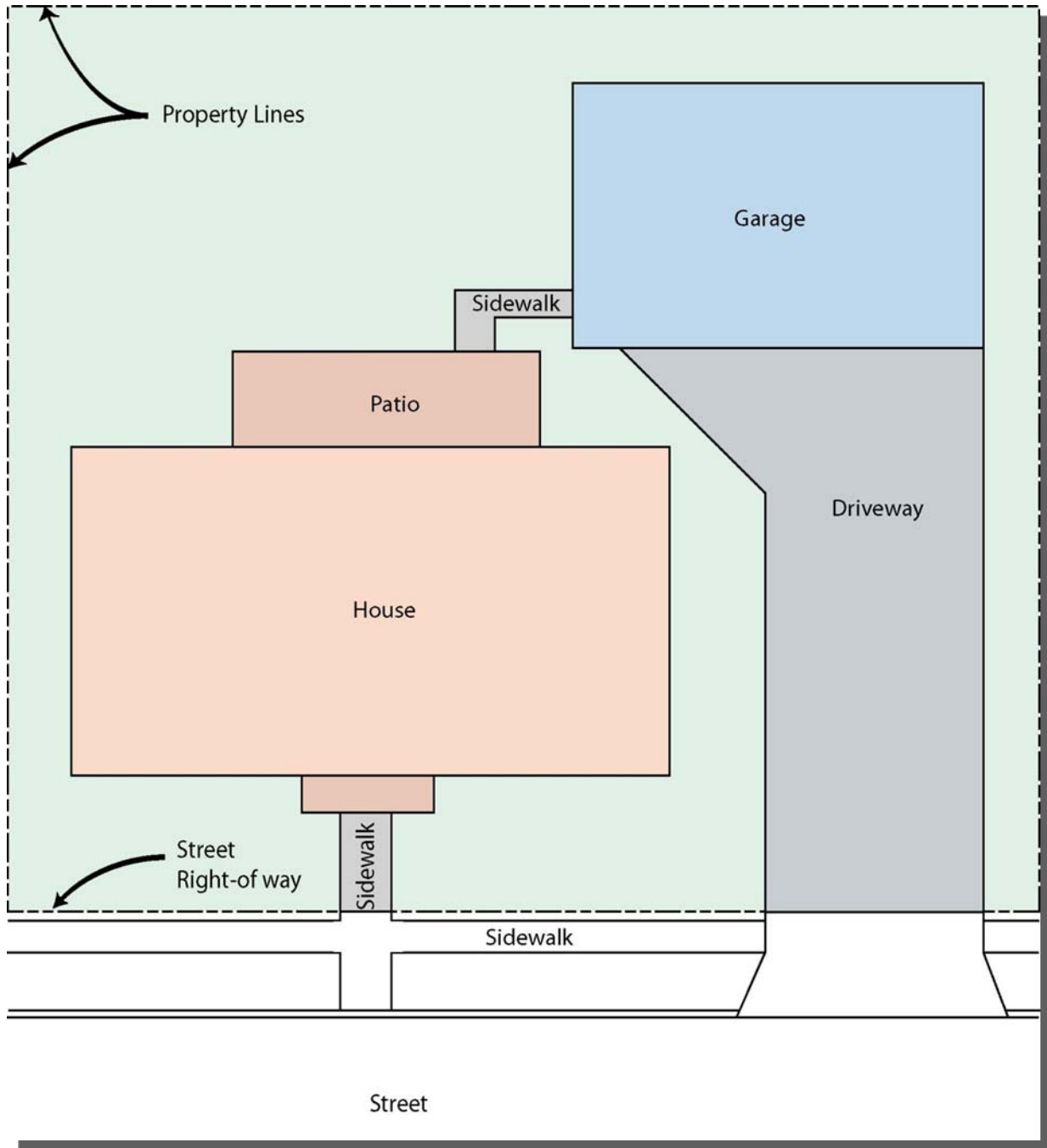
The billing unit used to estimate a parcel's relative impact (burden) on the city's storm water management program is the ERU. An ERU is typically defined as the average impervious area of a single-family home. The single-family parcel (or customer) is the basis of comparison because: 1) this customer class is fairly uniform as to the magnitude of the burden to the city's storm water management program; and 2) it is the largest single customer class. In some utilities, this analysis is taken one step further and residential tiers are established to reflect diversity in the size and type of development among single-family properties.

The analysis of the amount of impervious area on a single-family parcel in the City of Pewaukee included the measurement of a statistically significant number of single-family residential parcels to determine an average square footage of impervious area. The measurement includes roofs, driveways, patios, walks, and other like surfaces within the parcel. It does not include sidewalks, alleys, and roadways within the city right-of-way (Figure 4-1).

Impervious area is obtained from measuring aerial photography in a geographic information systems (GIS) environment. Impervious area is defined as any area covered with a layer of material that significantly reduces or completely impairs the ability to absorb rainfall. This includes areas paved with

concrete, asphalt, compacted gravel or earth, and areas covered with a structure. The actual ERU was determined to be 5,339 square feet by measuring 120 single-family parcels throughout the city.

**FIGURE 4-1
IMPERVIOUS AREA ERU CALCULATION FOR SINGLE – FAMILY PARCELS**



There were 6,176 parcels identified in the City of Pewaukee during the initial analysis. Of the 6,176 parcels in the city, there are approximately 5,280 developed parcels in the city and 896 agricultural, open, or otherwise undeveloped parcels. Table 4-1 summarizes the results of an analysis of the parcels in the City of Pewaukee using available data and assuming an impervious area ERU of 5,339 square feet.

The rate structure can be simplified for administrative purposes by treating customers as groups rather than individuals. However, this only works when customers within the same classification have similar runoff impacts and for whom the cost of providing services is similar.

**TABLE 4-1
ERU ESTIMATES**

LAND USE DESCRIPTION	NO. OF PARCELS	ERUS
Single family residential	3,464	3,467
Two family residential	20	22
Residential condominium	1,305	765
Commercial/Multi-family (4 units & up)	380	5,417
Manufacturing	48	852
Tax Exempt / Institutional	63	919
Undeveloped Land	896	0.0
Other(undefined) & Vacant Land		
Total All Parcels	6,176	11,442

Four main generalized customer classifications are proposed at this time and include:

- Single-family
- Duplex
- Other Developed
- Undeveloped

4.3.1 Single-Family Parcels

Parcel records from the end of 2008 report 3,464 developed single-family residential parcels in the City. Based on a sample set of 120 parcels, an average ERU value of 5,339 square feet has been calculated. The sample data set had a wide range of parcel impervious areas and the City wanted to evaluate the potential to place single-family parcels in tiers rather than to assign all single-family customers 1.0 ERU as many municipalities do. The concept of a tiered residential customer classification works well when parcels can be grouped together based on similar criteria and also keeping in mind the cost of services provided.

In developing the residential tiers, two methods of classification were considered. The first was to compare the measured impervious area of the sample set to the assessor first floor square footage information to see if a relationship existed that could be extrapolated to all parcels in the City. Upon review of the data, there was not a strong relationship and this approach was dropped from consideration.

The second approach compared the measured impervious data and the parcel zoning. This did return a good correlation and trend within the sample set. Furthermore, an assessment of equity in relation to the cost of services was also conducted to see if the revenue generated from grouped zoning classifications was commensurate with potential costs associated with these groupings. This too showed a good trend and relationship and confirmed the approach to develop the following residential tiers.

Tier 1 (Zoning Categories Rs-1, Rs-2, Rs-3)

In the data set used for this study there are a total of 499 parcels within these three zoning categories. Allowable dwelling unit densities range from 0.2 to 1.00 dwelling units per acre per the zoning code. Parcels are generally larger with greater building area and the sample set concurred that these had the largest combined average impervious area. Based on the sample set average and compared to the average impervious area among the entire sample set, this tier is assigned 1.3 ERUs per developed parcel.

Tier 2 (Zoning Categories Rs-4, Rs-5)

In the data set used for this study there are a total of 1,700 parcels within these two zoning categories. This is the largest of the three tiers and is the one that is closest to the average impervious area of the city. Allowable dwelling unit densities range from 2.18 to 2.90 dwelling units per acre per the zoning code. Parcels are generally somewhat smaller than the Tier 1 group. Based on the sample set and compared to the average impervious area among the entire sample set, these parcels averaged ten percent larger than the city-wide average and this tier is assigned 1.1 ERUs per developed parcel.

Tier 3 (Zoning Categories Rs-6, Rs-7)

In the data set used for this study there are a total of 1,265 parcels within these two zoning categories. This is the second largest of the three tiers and contains the densest residential development and generally the smallest parcels. The maximum allowable dwelling unit density for the Rs-6 zoning category is up to 3.49 dwelling units per acre per the zoning code. The Rs-7 zoning classification does not have a set allowable density but is generally more dense than most other parcels as they constitute some of the older established areas of the city that do not conform to the restrictions set forth in the Rs-6 zoning category and were "lots of record" prior to August 1982. Based on the sample set and compared

to the average impervious area among the entire sample set, these parcels contain the smallest amount of impervious area on average and this tier is assigned 0.75 ERUs per developed parcel.

Taken as a whole, all residential parcels when assigned the aforementioned ERU values results in nearly the same number of ERUs (3,467) as the total number of single family parcels (3,464) which under an single tier system would have resulted in 3,464 ERUs. This result in addition to the “cost apportionment” evaluation utilized during the review and establishment of these rates confirms this as a fair and equitable allocation of ERUs among the established tiers. Figure 4-2 shows the distribution of the resulting three tiers throughout the City of Pewaukee as well as the measured impervious areas used to evaluate other developed parcels.

4.3.2 Duplex Parcels

There are 20 parcels in the City of Pewaukee with zoning of either Rd-1 or Rd-2 (two-family residential or duplexes). The City of Pewaukee zoning code places maximum building densities at 3.96 and 4.84 units per acre respectively. While this is approximately twice the building density of the Rs-4 and Rs-5 parcels in Tier 2, the overall impervious area is not typically found to be much greater than an average single family parcel. Past storm water utility studies have found that the average impervious area of a duplex is typically slightly larger than an average single-family home, and was found to be ten-percent greater in a recent study. Based on these considerations, Rd-1 and Rd-2 parcels are recommended to be assigned the same 1.1 ERUs as established under Tier 3 which contains the Rs-4/Rs-5 single-family zoning parcels.

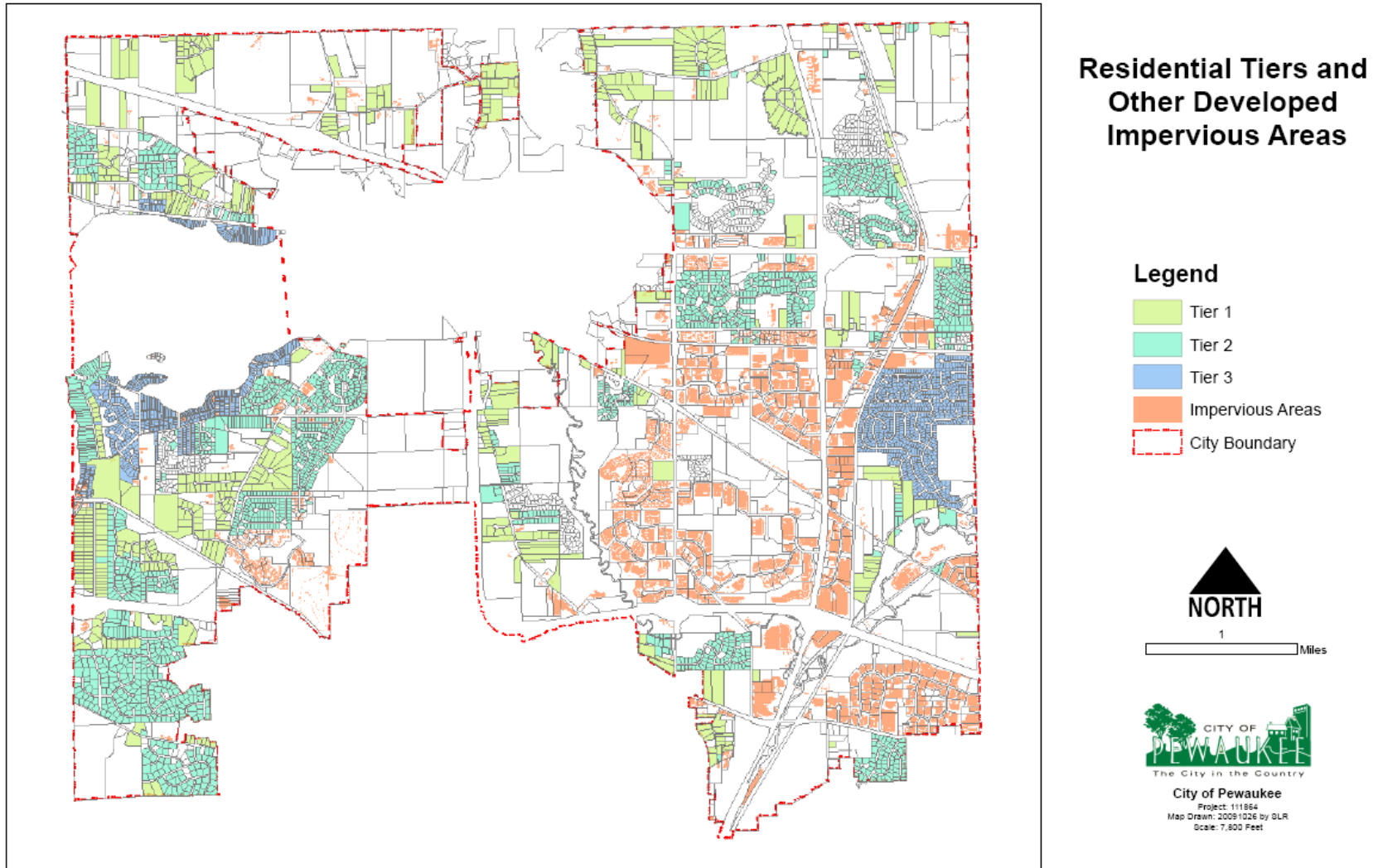
4.3.3 Other Developed Parcels

Other developed parcels include all other developed parcels, businesses, industries, schools, hospitals, churches, and government facilities. For the purposes of this study, large residential properties (apartments and development of 3 or more units) are included in the non-residential parcel analysis. Additionally, based on a recent challenge to an existing utility, it is recommended that condominium properties be treated in the same manner. This methodology develops a unique storm water charge for each parcel based on the total impervious area of the development. This algorithm calculates the storm water charge by taking the total impervious area on the parcel and dividing it by the equivalent impervious area of an ERU (where one ERU is equivalent to 5,339 square feet). For example, as shown in Figure 4-3, a commercial development with an 18,770 square foot building and 28,494 square feet of parking has a total of 47,264 square feet of impervious area. This development would be charged 13.0 ERUs (47,264/5,339). The EC for this example would be 8.9 ERUs times the rate established for the EC.

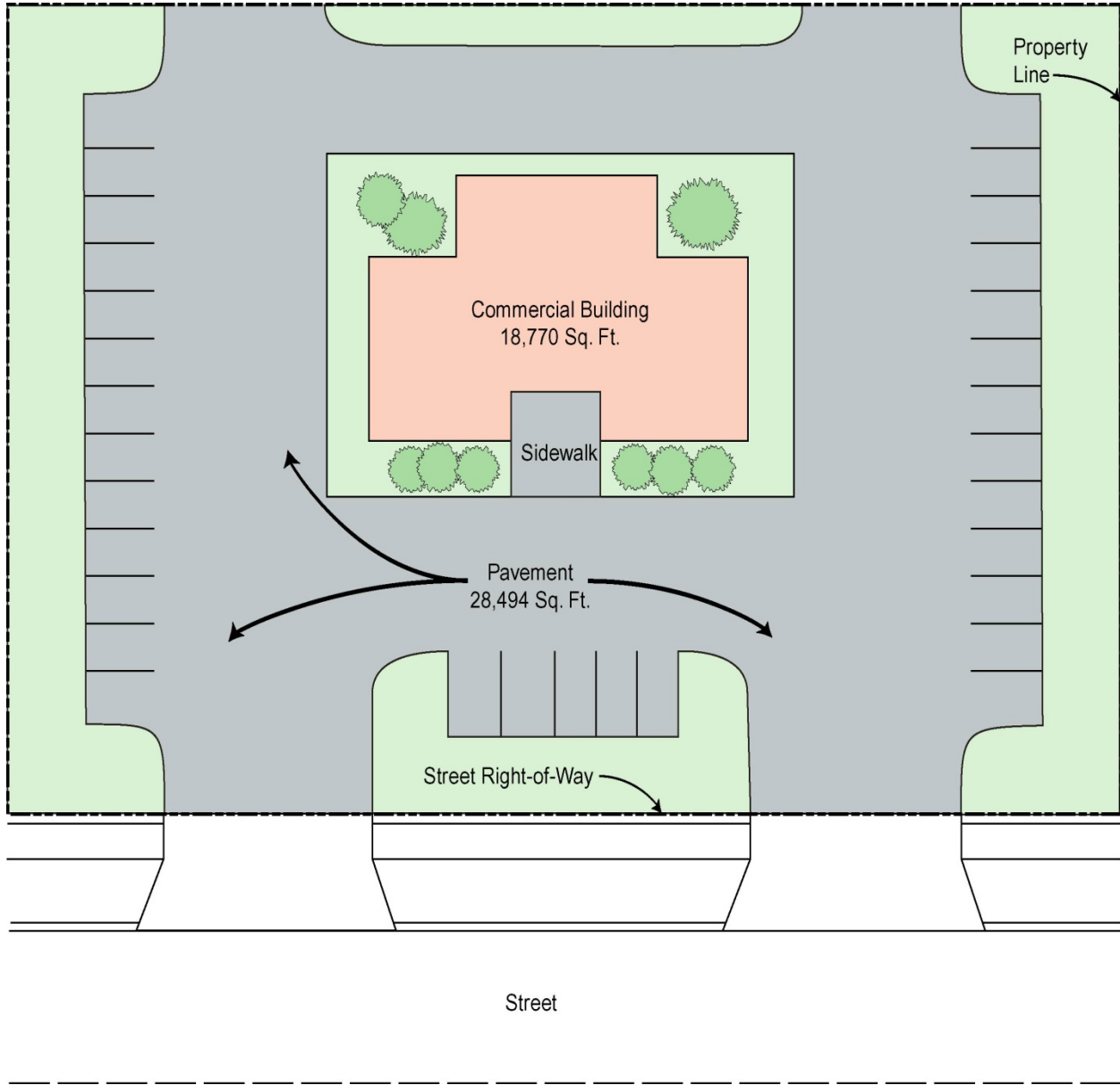
Commercial

There are 380 developed commercial and multi-family residential parcels in the City of Pewaukee. Four (4) family and larger multi-family residential parcels are considered by the City of Pewaukee to be commercial in nature. Characteristics of these properties vary widely across the City in the type and size of the development. There are about 5,417 ERUs attributed to commercial customers.

Figure 4-2



**FIGURE 4-3
IMPERVIOUS AREA ERU CALCULATION
FOR OTHER DEVELOPED PARCELS**



Condominiums

Condominium developments generally have similar impervious area and runoff characteristics as multi-family residential developments. The main difference between a condominium parcel and a multi-family parcel is the method of ownership. Multi-family parcels generally have only one (1) owner, while condominiums are owned by the occupant/owner of each dwelling unit in the development and have common areas under shared ownership. Therefore, the method of calculating the storm water charge for the condominium customer is recommended to be the same as the other developed customers, but with one variation. The variation is that each owner will be charged an equivalent share of the total ERUs calculated for the entire development. For example, assuming a 10-unit condominium complex, each condominium unit would be charged one-tenth of the total number of ERUs measured for the entire complex.

There are 1,305 residential condominium owners, comprising about 765 ERUs.

Manufacturing

Using the same method described for the commercial properties, there are 48 manufacturing parcels that comprise about 852 ERUs.

Tax Exempt and Institutional

Tax-exempt parcel includes churches, schools, parks and other governmental parcels, and other institutional parcels. There are 63 developed tax-exempt parcels of varying sizes. The tax-exempt and institutional parcels make up about 919 ERUs collectively.

4.3.4 Undeveloped Parcels

Undeveloped lands include open space, undeveloped commercial/residential parcels, and other (undefined) parcels. There are 896 parcels classified as undeveloped. These lands were not included in the EC analysis as they did not have any significant impervious areas.

4.4 Special Charge (SC) Rate Components

As discussed previously, rate structures should consider the variation in costs of services one area might have over another. Examples such as rural areas versus urban areas that may receive considerably different levels of service or areas that require atypical expenditures (such as a major detention basin or project to serve a particular area where sharing the full cost city-wide does not seem appropriate). These situations can be managed through use of a special charge (SC) designation or as a rate modifier to the equivalency charge (EC).

4.5 Exemptions/Exclusions

To maintain fairness and equity, municipal (city, state, county) parcels and any other parcel in the city should be included in the storm water utility to the extent possible. In the past, the Wisconsin Department of Transportation has made it known that they can receive (and pay) for services to their buildings and other areas where services are provided except for the Interstate Highway system, where they are not given any authority to pay for any fees associated with the roadway system.

Drainage facilities associated with road right-of-ways are major components of the city's storm water management system. During heavy rain events, the road helps to safely convey storm water and in-fact temporarily becomes part of the city's storm water management system. However, because these are publicly held properties, they are not included in direct impervious area measurements associated with individual parcels.

4.6 Credits and Rebates

Credits could be given in those situations where the actions of a customer result in a savings to the city, where the city wants to create an incentive for customers to behave in a certain way, or where site specific conditions result in a customer not receiving all of the available services.

Private water quality ponds or other water quality best management practices paid for and maintained privately may be eligible for credit on a portion of their storm water fee. Any credit will require that the owner sign a maintenance agreement with the city to assure that the facility will function as designed.

Private water quantity (flood management) practices paid for and maintained privately may be eligible for credit on a portion of their storm water fee. Any credit will require that the owner sign a maintenance agreement with the city to assure that the facility will function as designed.

Site specific conditions can include riparian land owners where some or all of their parcel drains directly to a waterway not owned or maintained by the city, and therefore that customer is not receiving all the services of the city and may receive partial credit for a portion of their storm water fee.

Rebates may also be available to those who qualify. Rebates are a one-time financial reimbursement of a set amount for rain barrel(s) and/or rain garden(s) or other similar devices that are installed by owners and approved by the City. Additional discussion about credits and rebates is presented in Chapter 6, Implementation.

4.7 Potential Annual Revenue Projections

As it currently stands, the City of Pewaukee appears to be in a position to develop a storm water utility (user fee) that would be composed of an equivalency charge (EC) component that would be allocated to all developed properties based on their amount of impervious surface where one (1) ERU in the City of Pewaukee is equivalent to 5,339 square feet of impervious area. The base charge (BC) and special charge (SC) components are not initially planned for use.

The current estimated EC charge rate is \$10 per month per ERU where ERUs are assigned to each developed parcel as discussed in Section 4.3. The 11,442 ERUs identified in Table 4-1 representing all customer classes in the City of Pewaukee is based on an analysis that is a year old. It is reasonable that this value will grow as a result of new development and re-development in the city. However, it is also reasonable to assume that some amount of these units will not ultimately generate full revenue for the storm water utility because of credits or other conditions. Our current estimate is that the ERUs comprising the storm water utility will be approximately 11,200 during the first year of utility operation. 11,200 ERUs billed at a monthly rate of \$10 per ERU will generate an annual revenue of \$1,344,000.

5.0 RATE ANALYSIS

5.1 User Fee Calculation

The components of a storm water management utility program that must be funded were described in Section 2 of this report. A ten-year implementation plan and cash flow analysis is presented in Table 5-1 based on the estimated storm water management program costs.

There are three (3) potential rate components to fund the program as presented previously in Section 4. These three (3) rate components are the base charge (BC), equivalency charge (EC), and Special Charge (SC). At this time, only the EC is proposed for use, and initial rates would be established through a Common Council Resolution. The BC and SC can be established as needed at anytime through a Common Council Resolution.

An initial EC rate of \$10 per ERU per month (\$120 per ERU per year) is suggested based on an evaluation of ten (10) years of expenditures for the other storm water management program, including capital improvement projects.

5.2 Rate Analysis

The cash flow analysis presented in Table 5-1 uses the aforementioned EC rate of \$10 per month. This would result in a rate of \$30 per quarter, \$120 per year, for a 1 ERU customer to cover the costs of the City's storm water management program. Because of the residential tiering, some single family residences will pay more than this 1 ERU rate and some will pay less. Rates in the cash flow analysis were set assuming that there would be no fluctuation in the rate charge for the first ten years of the program. If necessary, the Common Council could adjust rates periodically through the rate resolution. The net balance at the end of each year will be carried over to the next year. Table 5-1 assumes a 0.5% annual growth in the city's total number of ERUs and includes an estimated amount of ERUs deducted for credits.

5.3 Other Revenue Sources

Common sources of additional funds include grants, tax incremental financing (TIF), special assessments, general funds (taxes), interest, fines, and fees. Many utilities continue to rely on these and other sources of funding to defray the cost of capital improvements and other storm water elements. It is recommended that the City continue to explore and utilize these additional funding methods, especially grants, to supplement the revenue generation potential of a storm water utility. Table 5-1 assumes some small interest from cash reserves and delinquent bills.

City of Pewaukee
Storm Water Utility Program Budget

TABLE 5-1 STORM WATER UTILITY CASH FLOW ANALYSIS				2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-year Total	10-Year (11-20)	
Category				Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Annual Cost	Average Annual Cost	
REVENUE																
Billing Units (ERUs based on ERU value of 5,339)	ERUs =	11,442	Growth Factor :	0.5%	11,442	11,499	11,557	11,614	11,673	11,731	11,790	11,849	11,908	11,967		
Credits					350	352	354	355	357	359	361	362	364	366		
Available Billing Units (after Credits)	Monthly ERU Rate		\$	10.00	11,092	11,147	11,203	11,259	11,316	11,372	11,429	11,486	11,544	11,601		
Annual EC Stormwater Fee (\$/ERU)	Annual inflationary increase multiplier:			0%	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00	\$120.00		
Stormwater Utility Revenue					\$1,331,040	\$1,337,695	\$1,344,384	\$1,351,106	\$1,357,861	\$1,364,650	\$1,371,474	\$1,378,331	\$1,385,223	\$1,392,149		
EXPENSES																
Administration																
Wages																
	% of total \$ to SW Utility															
Accounting (\$35K)	15				\$5,250	\$5,250	\$5,350	\$5,460	\$5,570	\$5,680	\$5,790	\$5,900	\$6,010	\$6,120	\$56,380	\$5,638
Engineering Technician (\$34K)	50				\$17,000	\$17,000	\$17,340	\$17,680	\$18,040	\$18,400	\$18,740	\$19,080	\$19,420	\$19,760	\$182,460	\$18,246
Clerk (\$40K)	15				\$6,000	\$6,000	\$6,120	\$6,240	\$6,360	\$6,490	\$6,610	\$6,730	\$6,850	\$6,970	\$64,370	\$6,437
Assitant Clerk (\$35K)	15				\$5,250	\$5,250	\$4,340	\$4,420	\$4,510	\$4,600	\$4,690	\$4,780	\$4,870	\$4,960	\$47,670	\$4,767
New Utility Clerk (Part time) (\$11K)	75				\$8,250	\$8,250	\$8,400	\$8,580	\$8,750	\$8,930	\$9,120	\$9,320	\$9,530	\$9,750	\$88,880	\$8,888
Director of Public Works (\$93K)	10				\$9,300	\$9,300	\$9,490	\$9,680	\$9,870	\$10,060	\$10,150	\$10,240	\$10,330	\$10,420	\$98,840	\$9,884
Assistant City Engineer (\$60K)	25				\$15,000	\$15,000	\$15,300	\$15,600	\$15,920	\$16,240	\$16,560	\$16,880	\$17,200	\$17,520	\$161,220	\$16,122
New Engineer (\$46K)	80				\$36,800	\$36,800	\$37,500	\$38,300	\$39,050	\$39,840	\$39,930	\$40,020	\$40,110	\$40,200	\$388,550	\$38,855
Highway Superintendent (\$60K)	10				\$6,000	\$6,000	\$6,120	\$6,240	\$6,370	\$6,490	\$6,610	\$6,730	\$6,850	\$6,970	\$64,380	\$6,438
Highway Personnel (\$303K)	33				\$100,000	\$100,000	\$102,000	\$104,040	\$106,120	\$108,240	\$110,360	\$112,480	\$114,600	\$116,720	\$1,074,560	\$107,456
Highway Promotions (2) (\$8.4K)	50				\$4,200	\$4,200	\$4,280	\$4,380	\$4,450	\$4,540	\$4,630	\$4,720	\$4,810	\$4,900	\$45,110	\$4,511
New Highway Position (\$45K)	30				\$22,500	\$22,500	\$23,000	\$23,500	\$24,000	\$24,500	\$25,000	\$25,500	\$26,000	\$26,500	\$243,000	\$24,300
2nd New Highway Position (\$45K)	30				\$11,000	\$11,000	\$22,500	\$23,000	\$23,500	\$24,000	\$24,500	\$25,000	\$25,500	\$26,000	\$216,000	\$21,600
New Summer Highway Position (\$9.6K)	75				\$7,200	\$7,200	\$7,300	\$7,500	\$7,600	\$7,800	\$8,000	\$8,200	\$8,400	\$8,600	\$77,800	\$7,780
Benefits																
Social Security					\$32,000	\$32,000	\$32,640	\$33,290	\$33,960	\$34,640	\$35,300	\$36,030	\$36,740	\$37,460	\$344,060	\$34,406
Health Insurance					\$44,200	\$44,200	\$45,090	\$45,990	\$46,910	\$47,850	\$48,810	\$49,790	\$50,790	\$51,990	\$475,620	\$47,562
Dental Insurance					\$4,000	\$4,000	\$4,080	\$4,160	\$4,250	\$4,330	\$4,410	\$4,490	\$4,570	\$4,650	\$42,940	\$4,294
Optical Insurance					\$1,000	\$1,000	\$1,020	\$1,040	\$1,060	\$1,080	\$1,100	\$1,120	\$1,140	\$1,160	\$10,720	\$1,072
Life Insurance					\$1,250	\$1,250	\$1,275	\$1,300	\$1,330	\$1,360	\$1,390	\$1,420	\$1,450	\$1,480	\$13,505	\$1,351
Disability Insurance					\$3,000	\$3,000	\$3,060	\$3,120	\$3,180	\$3,250	\$3,320	\$3,390	\$3,460	\$3,530	\$32,310	\$3,231
Pension					\$46,000	\$46,000	\$46,920	\$47,860	\$48,820	\$49,790	\$50,770	\$51,760	\$52,790	\$53,770	\$494,480	\$49,448
Other																
Outside Engineering					\$100,000	\$100,000	\$75,000	\$75,000	\$75,000	\$75,000					\$500,000	\$50,000
Legal Consultation					\$5,000	\$5,000	\$5,000	\$4,000	\$3,000	\$3,000	\$3,100	\$3,200	\$3,300	\$3,400	\$38,000	\$3,800
Uniforms & Protective Equipment					\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,700	\$1,800	\$1,900	\$2,000	\$16,400	\$1,640
Operating Supplies					\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,100	\$5,200	\$5,300	\$5,400	\$51,000	\$5,100
Training & Seminars					\$4,000	\$4,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,100	\$2,200	\$2,300	\$2,400	\$25,000	\$2,500
Postage					\$3,000	\$3,000	\$3,200	\$3,400	\$3,600	\$3,600	\$3,700	\$3,800	\$3,900	\$4,000	\$35,200	\$3,520
Meetings & Conventions					\$600	\$600	\$600	\$600	\$600	\$600	\$630	\$660	\$690	\$720	\$6,300	\$630
Mileage					\$350	\$350	\$300	\$300	\$300	\$350	\$375	\$400	\$425	\$450	\$3,600	\$360
Dues, Memberships, & Subscriptions					\$500	\$500	\$500	\$500	\$550	\$550	\$575	\$600	\$625	\$650	\$5,550	\$555
Cell Phones/Pagers	33				\$1,400	\$1,400	\$1,450	\$1,500	\$1,550	\$1,600	\$1,650	\$1,700	\$1,750	\$1,800	\$15,800	\$1,580
Subtotal					\$506,550	\$506,550	\$497,675	\$505,180	\$512,720	\$521,310	\$454,720	\$463,140	\$471,610	\$480,250	\$4,919,705	\$491,971
Operation and Maintenance																
Storm Sewer Maintenance					\$40,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000	\$355,000	\$35,500
Catch Basin Cleaning & Maintenance					\$15,000	\$10,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$7,000	\$81,000	\$8,100
Street Sweeping					\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$7,500	\$75,000	\$7,500
Curb and Gutter Repair					\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$100,000	\$10,000
Road Repair (for culvert repair)					\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$16,000	\$160,000	\$16,000
Ditch Maintenance					\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$120,000	\$12,000
Brush Removal					\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$60,000	\$6,000
Culvert Replacement					\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$36,000	\$360,000	\$36,000
Televising					\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$40,000	\$4,000
Easement Acquisition					\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$60,000	\$6,000
Public Works Yard Maintenance					\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$25,000	\$2,500
GIS Maintenance & Updates					\$300	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$4,800	\$480
Computer/Program Maintenance					\$500	\$500	\$1,000	\$500	\$500	\$500	\$500	\$500	\$500	\$500	\$5,500	\$550
Vehicle Maintenance (\$65K)	33				\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$21,500	\$215,000	\$21,500
Subtotal					\$177,300	\$167,500	\$165,000	\$164,500	\$164,500	\$164,500	\$164,500	\$164,500	\$164,500	\$164,500	\$1,661,300	\$166,130

City of Pewaukee
Storm Water Utility Program Budget

TABLE 5-1 STORM WATER UTILITY CASH FLOW ANALYSIS						2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	10-year Total	10-Year (11-20)	
Category						Year	Year	Year	Year	Year	Year	Year	Year	Year	Year	Annual Cost	Average	
						1	2	3	4	5	6	7	8	9	10		Annual Cost	
NR 216 Permit Required Stormwater Management																		
Pond Inspections/Field Inventory						\$5,000	\$10,000	\$10,000	\$5,000	\$4,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$49,000	\$4,900	
Illicit Discharge Inspections						\$1,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500	\$24,000	\$2,400	
Erosion Control Inspections						\$1,500	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$28,500	\$2,850	
Storm Sewer As-builts & Mapping						\$25,000	\$30,000	\$10,000	\$7,500	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$102,500	\$10,250	
Municipal Yard Storm Water Pollution Prevention Plan						\$3,500	\$1,000	\$1,000	\$1,100	\$1,200	\$1,300	\$1,400	\$1,500	\$1,600	\$1,700	\$15,300	\$1,530	
Information & Education - County Fee						\$2,500	\$2,600	\$2,700	\$2,800	\$2,900	\$3,000	\$3,100	\$3,200	\$3,300	\$3,400	\$29,500	\$2,950	
Information & Education						\$500	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$9,500	\$950	
Incentive Program for Resident Participation						\$0	\$1,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$2,000	\$17,000	\$1,700	
Donations to Environmental Groups who Aid in Permit Compliance						\$2,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$56,000	\$5,600	
Permit Fees						\$1,000	\$1,500	\$1,500	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000	\$11,000	\$1,100	
Annual Report						\$600	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$800	\$7,800	\$780	
Subtotal						\$43,100	\$59,400	\$40,500	\$32,700	\$29,400	\$28,600	\$28,800	\$29,000	\$29,200	\$29,400	\$350,100	\$35,010	
Capital - Equipment																		
Cruz Air	40					\$0	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$25,000	
Street Sweeper	100					\$230,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$230,000	\$23,000	
Dump Truck (\$60-65K)	25					\$0	\$15,000	\$16,250	\$0	\$0	\$16,250	\$0	\$0	\$0	\$0	\$47,500	\$4,750	
Skidsteer (\$40K)	25					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$10,000	\$1,000	
Loader (\$80K) (\$150K new)	25					\$20,000	\$0	\$0	\$0	\$0	\$0	\$37,500	\$0	\$0	\$0	\$57,500	\$5,750	
Field Truck (\$30K) (2)	25					\$0	\$7,500	\$7,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$15,000	\$1,500	
Back Hoe (\$45K)	25					\$0	\$0	\$11,250	\$0	\$0	\$0	\$12,000	\$0	\$0	\$0	\$23,250	\$2,325	
Bucket Truck (\$95K)	25					\$0	\$23,750	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$0	\$123,750	\$12,375	
Chipper (\$40K)	50					\$0	\$0	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$2,000	
Boom Mower (\$55K)	25					\$0	\$0	\$0	\$0	\$13,750	\$0	\$0	\$0	\$0	\$0	\$13,750	\$1,375	
Highway Mower (\$55K)	25					\$0	\$0	\$0	\$0	\$0	\$13,750	\$0	\$0	\$0	\$0	\$13,750	\$1,375	
Broom (\$10K)	25					\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,500	\$0	\$2,500	\$250	
GPS Units	50					\$15,000	\$15,000	\$1,000	\$1,000	\$1,000	\$1,000	\$15,000	\$15,000	\$1,200	\$1,200	\$66,400	\$6,640	
Desk Computer	80					\$4,000	\$0	\$0	\$4,000	\$0	\$0	\$4,000	\$0	\$0	\$4,000	\$16,000	\$1,600	
Field Laptop Computer	100					\$2,500	\$2,500	\$0	\$0	\$3,000	\$0	\$0	\$3,000	\$0	\$0	\$11,000	\$1,100	
Computer Software	100					\$10,000	\$1,000	\$1,000	\$1,000	\$11,000	\$1,000	\$1,100	\$1,100	\$12,000	\$1,200	\$40,400	\$4,040	
Storage Building	50					\$0	\$5,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$105,000	\$10,500	
Containment Areas (salt, street sweepings, stockpiles)	50					\$0	\$0	\$75,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$7,500	
Subtotal						\$281,500	\$319,750	\$212,000	\$26,000	\$28,750	\$18,250	\$83,350	\$19,100	\$115,700	\$16,400	\$1,120,800	\$112,080	
Capital - Projects																		
		Rate	Term (yrs)	Start Year	Total													
Comprehensive SWMP		5%	10	2011	\$180,000	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$233,108	\$23,311	
Flooding Mitigation		5%	10	2013	\$800,000	\$0	\$0	\$103,604	\$103,604	\$103,604	\$103,604	\$103,604	\$103,604	\$103,604	\$103,604	\$103,604	\$828,829	\$82,883
TMDL Reduction Projects		5%	10	2015	\$370,000	\$0	\$0	\$0	\$0	\$47,917	\$47,917	\$47,917	\$47,917	\$47,917	\$47,917	\$287,500	\$28,750	
Springdale Estates Pond (RNP-4)		5%	10	2011	\$1,020,000	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$132,095	\$1,320,947	\$132,095	
New Pond (RNP-2)		5%	10	2014	\$430,000	\$0	\$0	\$0	\$55,687	\$55,687	\$55,687	\$55,687	\$55,687	\$55,687	\$55,687	\$389,809	\$38,981	
Retrofit Pond (P24-2)		5%	10	2011	\$180,000	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$23,311	\$233,108	\$23,311	
Enhance Ponds (P15-1 & P15-3)		5%	10	2017	\$110,000	\$0	\$0	\$0	\$0	\$0	\$0	\$14,246	\$14,246	\$14,246	\$14,246	\$56,982	\$5,698	
Lexington Drive Pond (Waukesha?)**		5%	10	2014	\$625,000	\$0	\$0	\$0	\$80,940	\$80,940	\$80,940	\$80,940	\$80,940	\$80,940	\$80,940	\$566,583	\$56,658	
Woodside Road Ditch Enclosure*		5%	10	2017	\$460,000	\$0	\$0	\$0	\$0	\$0	\$0	\$59,572	\$59,572	\$59,572	\$59,572	\$238,288	\$23,829	
Lexington Drive Ditch Enclosure**		5%	10	2014	\$610,000	\$0	\$0	\$0	\$78,998	\$78,998	\$78,998	\$78,998	\$78,998	\$78,998	\$78,998	\$552,985	\$55,298	
Springdale Road Ditch Enclosure		5%	10	2011	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Hill n Dale Flood Control		5%	10	2011	\$110,000	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$14,246	\$142,455	\$14,246	
Meadowbrook Farms Flood Control		5%	10	2011	\$150,000	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$194,257	\$19,426	
Lindsay Road Curb/Ditch Improvement		5%	10	2015	\$60,000	\$0	\$0	\$0	\$0	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$46,622	\$4,662	
Hillside Grove Storm Sewer		5%	10	2016	\$170,000	\$0	\$0	\$0	\$0	\$0	\$22,016	\$22,016	\$22,016	\$22,016	\$22,016	\$110,079	\$11,008	
Oak Street/Peninsula Drive Road Raising		5%	10	2022	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Public Works Yard Bio-Infiltration Swale		5%	10	2013	\$60,000	\$0	\$0	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$7,770	\$62,162	\$6,216	
Wagner Park Ponds		5%	10	2019	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,426	\$19,426	\$38,851	\$3,885	
South Park Drainage		5%	10	2019	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$19,426	\$19,426	\$38,851	\$3,885	
Emerald Acres (new culvert under RR)		5%	10	2013	\$150,000	\$0	\$0	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$19,426	\$155,405	\$15,541	
New Pond (RNP-5)* - Water Quality Alternate Project		5%	10	TBD	\$370,000													
Enhance Pond (P20-1) - Water Quality Alternate Project		5%	10	TBD	\$85,000													
Enhance Gun Club Pond (P14-5) - Water Quality Alternate Project		5%	10	TBD	\$775,000													
New Pond (P25-1 Northmound Termini) - Water Quality Alternate Project		5%	10	TBD	\$780,000													
Subtotal						\$212,388	\$212,388	\$343,187	\$558,812	\$614,499	\$636,515	\$710,333	\$710,333	\$749,184	\$749,184	\$5,496,822	\$549,682	
Annual Totals						\$1,220,838	\$1,265,588	\$1,258,362	\$1,287,192	\$1,349,869	\$1,369,175	\$1,441,703	\$1,386,073	\$1,530,194	\$1,439,734	\$13,548,727	\$1,354,873	
End of Year Balance						\$111,202	\$185,422	\$274,298	\$341,954	\$354,366	\$354,385	\$288,700	\$284,845	\$143,722	\$98,575			

Notes:
 (1) * Woodside Drive Ditch Enclosure & Pond RNP-5 should be simultaneous projects.
 (2) ** Lexington Drive Ditch Enclosure & Pond should be simultaneous projects.
 (3)

6.0 IMPLEMENTATION

Implementation and integration of a storm water user fee system would require the following five (5) actions:

1. Adopt an ordinance establishing the user fee system.
2. Establish procedures to bill and collect the user fee revenues.
3. Establishing a credit program.
4. Integrate the new storm water funding mechanism into the existing city systems.
5. Public Education Program Implementation.

6.1 Storm Water User Fee Ordinance

A storm water user fee ordinance establishes the user fee system as the principal funding mechanism for the city's storm water management program. Establishing a storm water utility does not require approval by the Public Service Commission. The ordinance outlines the structure for computing the fees for each of the customer classifications and specifies procedures for collecting fees and dealing with delinquent bills.

Nonpayment must be addressed in the ordinance. In most communities, the unpaid balance becomes a lien against the parcel in the same way that unpaid water bills become a lien against the parcel. It is important to have and enforce a policy on the non-payment of fees. A fair method for customers to appeal the fee charged against them must accompany this policy.

The responsibilities and authorities of staff that would run the fee system and related services are specified in the ordinance. Certain duties and authorities, such as setting the Billing Unit charge rate or adjustment of fees, may also be described in the ordinance but rates are typically set by an accompanying resolution.

6.2 Billing and Collection

The storm water fee is typically added to existing utility bills issued for water and wastewater/sanitary sewer service charges. The City of Pewaukee has an established potable water and sanitary sewer billing system. It is currently the intent of the city to add any approved storm water utility fee to the city's existing sewer/water billing system. Customers not currently receiving a sewer bill would receive a bill with only a storm water fee assessed.

6.3 Utility Credit and Rebate Program

The city's storm water management system has been constructed and maintained for the health and safety of everyone in the city. The city's storm water management program is a city-wide responsibility.

Utility rates are established to cover the following component costs of the city's storm water management program:

- Administration
- Engineering and Planning
- Operation/Maintenance
- Regulatory Conformance and Enforcement
- Capital Improvements

The fact that storm water systems are constructed in fulfillment of a regulatory requirement is typically not sufficient justification for granting credit. This includes the storm water discharge requirements of the City of Pewaukee and storm water permitting required under the WDNR's NR 216 storm water permitting program. However, these factors can be considered when establishing a credit program.

In communities where ordinances require the construction of storm water facilities (usually ponds), the intent is to maintain the status-quo and not to correct existing drainage problems that would reduce the capital improvements required by the city.

However, property owners who take part in meeting the city's storm water management obligations through the installation and maintenance of specific water quality or quantity devices may be eligible for a credit or one-time rebate.

6.3.1 Credits

Credits, if awarded, should be based on an estimate of the avoided cost (direct cost savings) to the city's storm water management program or in those cases where a customer is not receiving all/some of the services. Credit should be awarded on a case-by-case basis. Credits result in a reduction of the storm water utility fee on an on-going basis, assuming that the situation or best management practice(s) that allowed the credit initially are found to remain in place.

Credit should be considered only if the system constructed results in:

- The city having to perform maintenance less frequently, or
- The city being able to avoid/downsize construction of a city-identified capital improvements project, or
- Private facilities are oversized by either managing storm water runoff to city standards from off-site properties or are more restrictive than required by the city's storm water ordinance (with prior approval of the city).

The city should adopt a system of granting credits following the criteria and procedures listed below:

1. The applicant must provide documentation that demonstrates that the credit is warranted.
2. Existing or proposed storm water management systems must be properly designed, constructed, and maintained in accordance with all appropriate regulations.
3. There should be a maintenance agreement between the city and the applicant/owner.
4. The amount of the credit should be relative to the corresponding service to the maximum extent practicable. Guidance on credit limits and requirements should be established at the onset of the program.
5. Water quality devices can obtain full or partial credit based on the efficiency of the devices compared to the minimum requirements established by the city in a documented program.
6. Similarly, water quantity (flood management) devices can obtain full or partial credit based on the efficiency of the devices compared to the minimum requirements established by the city in a documented program.
7. Continuing credit should be based on a periodic demonstration on the part of the applicant that the private storm water management system is being operated and maintained properly.
8. Credits should be considered for riparian owners (based on recent court cases in the State of Wisconsin) only for cases within the city where receiving waters do not include maintenance or other expenditures within the storm water management program.
6. Credits should be considered for customers who are served by sewer systems that are not owned or managed by the city.

6.3.2 Rebates

Rebates, unlike credits, are a one-time financial reimbursement for the purchase and installation of certain approved devices or features such as rain barrels and rain gardens. These do not result in an on-going reduction of storm water utility fees and are created to be an incentive to owners to install practices.

6.4 Maintenance of Utility

A storm water database requires continual updating. New development, redevelopment, and changes in a non-residential parcel's impervious area must be recorded in a timely manner. In many communities, the tracking of this information starts when a building permit is issued or other events take place. The confirmation of the information should be included as a normal part of the city's inspections.

A logical place to track changes and store the supporting documentation for the storm water fee would be in the city's GIS. The city's GIS can maintain more detailed information than is typically available within utility billing software programs. The City Engineering Department can have the GIS coverages and databases updated at the time that a project comes in for a building permit/site plan review or other event. Reports can be generated from GIS and passed on to the utility billing division that is responsible for maintaining the utility billing records. This gives control of the information to those in city government who are responsible for it. It also makes all of the detailed information for any given customer's parcel available to anyone needing it.

As the storm water user fee system is put into place, each of the involved departments will have to familiarize its staff with the concepts, procedures, and practices of the utility. Some communities have found a "dry run" of the new tasks useful. For inspections, this may involve defining a quick checklist for impervious area changes and familiarizing staff with the checklist and how the information is to be communicated. The city should decide how to allocate account numbers to storm water-only accounts, if necessary. The city will need to develop the data structures and data rules for the new storm water fee database to ensure all the necessary data is obtained and tracked properly. The initial establishment of this data should involve test runs and procedure refinement. The city must determine the person, entity, or department ultimately responsible for overseeing the exchange of information to ensure that the new system is properly maintained.

6.5 Public Education

Implementing any new program or procedure requires good communication among staff, elected officials, and the public at large (both citizens and commercial businesses). This is especially true when discussing storm water services which largely go unnoticed in communities and is largely misunderstood, if understood at all. It is essential that the issues concerning storm water and the need to adequately fund this program are clearly conveyed to the community.

Fairness and equity of a storm water utility needs to be stressed and it needs to be recognized that this type of funding mechanism affects a shift in how and who is charged for storm water related services. Businesses with large impervious areas will pay proportionally more for these services. Tax exempt properties (churches, government, and schools) will now pay a fee where no fee was paid before since these charges are currently on the tax bill.

APPENDIX A

Draft Storm Water Utility Ordinance

ORDINANCE NO. 10-09

**AN ORDINANCE TO CREATE CHAPTER 26 OF
THE CITY OF PEWAUKEE MUNICIPAL CODE
REGARDING STORM WATER UTILITY**

WHEREAS, the Common Council of the City of Pewaukee has determined that it is necessary and appropriate to create a storm water utility; and

WHEREAS, the Common Council is vested with authority to create such a utility by Chapters 62 and 66 of the Wisconsin Statutes, including, but not limited to the following: §§ 62.04, 62.11, 62.16, 62.18, 66.0621, 66.0627, 66.0809, 66.0811, and 66.0821.

WHEREAS, the Common Council has found that the management of storm water and other surface water discharges within and beyond the City of Pewaukee is a matter that affects the health, safety and welfare of the City, its citizens and businesses, and others in the surrounding area. Failure to effectively manage storm water affects surface water runoff, creates erosion of lands, damages businesses and residences, and creates sedimentation and other environmental damage in the City Pewaukee. In addition, storm water management can affect the sanitary sewer utility operations of the City by, among other things, increasing the infiltration and inflow to the sanitary sewer.

NOW THEREFORE, at a regular meeting of the Common Council of the City of Pewaukee, held on the 7th day of September, 2010, a quorum of the members of the Common Council being present and a majority voting in favor thereof, the Common Council does hereby ordain as follows:

- (1) Chapter 26 of the Municipal Code of Ordinances is created to read as follows:

26.00 FINDINGS AND NECESSITY.

The City Council finds that the management of storm water and other surface water discharges within and beyond the City of Pewaukee is a matter that affects the health, safety and welfare of the City, its citizens and businesses, and others in the surrounding area. Failure to effectively manage storm water affects the sanitary sewer utility operations of the City by, among other things, increasing the infiltration and inflow to the sanitary sewer. In addition, surface water runoff creates erosion of lands, damages businesses and residences, and creates sedimentation and other environmental damage in the City Pewaukee. In order to protect the health, safety and welfare of the public, the City of Pewaukee is exercising its authority to establish a Storm Water Utility for storm water management services. The City is acting under the authority of Chapters 62 and 66 of the Wisconsin Statutes, including, but not limited to the following: §§ 62.04, 62.11, 62.16, 62.18, 66.0621, 66.0627, 66.0809, 66.0811, and 66.0821.

26.01 OPERATION AND DIRECTOR.

The Storm Water Utility will be operated under the direction of the Engineering Department. The operation of the Storm Water Utility shall be under the supervision of the Common Council. The director of the Storm Water Utility will be the City Engineer.

26.02 AUTHORITY.

The City, acting through the storm water utility, may without limitation due to enumeration, do all those acts permitted to a storm water utility the aforementioned Wisconsin Statutes including the following:

- a. Acquire, construct, lease, own, operate, maintain, extend, expand, replace, clean, dredge, repair, manage and finance such facilities as are deemed by the City to be proper and necessary for storm and surface water management. These facilities may include, without limitation due to enumeration, surface and underground drainage facilities, sewers, watercourse, retaining walls, ponds, streets, roads, ditches and such other natural or manmade facilities as will support a storm water management system.
- b. Undertake operations or activities, or provide any services deemed by the City to be proper and necessary for storm and surface water management; and
- c. Maintain compliance with all regulatory requirements for storm and surface water management.

26.03 DEFINITIONS.

For the purpose of this Ordinance, the following definitions shall apply: words used in the singular shall include the plural; words used in the present tense shall include the future tense; the word "shall" is mandatory and not discretionary; the word "may" is permissive. Words not defined herein shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Dictionary.

- a. *Appropriate Fee.* Any or all of the fee components as established by the Common Council.

- b. *Director.* The City Engineer or his/her designee.
- c. *Developed Parcel.* A parcel shall be considered developed pursuant to this Ordinance if it has measurable impervious surfaces of at least 267 square feet.
- d. *Dwelling Unit.* Any residential space identified for habitation by the City Building Code.
- e. *Equivalent Runoff Unit (ERU).* The statistical average horizontal impervious area of a representative sample of developed “single-family” properties within the City of Pewaukee.
- f. *Impervious Area or Impervious Surface.* A horizontal surface that has been compacted or covered with a layer of material so that it is highly resistant to infiltration by rainwater. This includes, but is not limited to streets, roofs, sidewalks, parking lots and other similar surfaces as well as semi-impervious surfaces such as compacted gravel, stone or clay.
- g. *Multifamily Parcel.* Any residential lot or parcel identified for habitation with three or more dwelling units under single ownership including manufactured home parks and apartments.
- h. *Other Developed Parcel.* Any developed lot or parcel that is not a single-family or two-family (duplex) parcel including, but not limited to, transient rentals (such as hotels and motels), commercial, industrial, institutional, governmental, parking lots, and other properties containing impervious surfaces.
- i. *Residential Development.* Any developed lot or parcel exclusively for residential purposes including, but not limited to, single-family homes, two-family (duplex) homes, manufactured homes, condominiums, and multifamily apartment buildings.
- j. *Single-Family Parcel.* Any residential lot or parcel identified for habitation with exactly one dwelling unit.
- k. *Two-Family (Duplex) Parcel.* Any residential lot or parcel identified for habitation with exactly two dwelling units.
- l. *Undeveloped Parcel.* Any lot or parcel that has not been altered from its natural state by the addition of impervious surfaces of not more than 267 square feet.

26.04 APPLICABILITY.

- a. This ordinance is applicable to all lands, lots or parcels within the City of Pewaukee and;
- b. This ordinance is applicable to lands outside the City of Pewaukee by written agreement approved by the Common Council which include the acceptance of storm water utility fees as established from time to time pursuant to the terms of this ordinance and subject to all other legal requirements.

26.05 CUSTOMER CLASSIFICATION.

For purposes of imposing the storm water charges, all applicable lands, lots and parcels shall be assigned a customer classification by the Director.

- a. *Customer Classification Establishment.* The following four (4) customer classifications and three (3) residential tiers are established:
 1. Single-Family
 - (a) Tier 1 (Rs-1, Rs-2, Rs-3)
 - (b) Tier 2 (Rs-4, Rs-5)
 - (c) Tier 3 (Rs-6, Rs-7)
 2. Two-Family (Duplex)
 3. Other Developed
 4. Undeveloped

- b. *Customer Classification Modification.* The City Common Council may, by ordinance, modify the aforementioned customer classifications or establish additional customer classifications to provide a fair and reasonable distribution of the costs of the Storm Water Utility.

26.06 CHARGE METHODOLOGY.

The following Charge Methodology is established for the purpose of imposing storm water charges:

- a. *Charge Component Establishment.*

There shall be three charge components that may be used to share the costs of the storm water Utility. These charge components are:

 1. Base Charge (BC). The BC may be imposed on all lands, lots and parcels in the City. The Base Charge will be designed to reflect the fact that all parcels benefits from the storm water management activities of the City and/or that all parcels contribute storm water runoff (quantity burden) and pollution (quality burden) that must be managed by the City. The BC may be designed to collect the administrative costs and other appropriate expenses of the storm water utility operations and maintenance. The BC may be based on the size of a parcel, impervious area, or other method.
 2. Equivalency Charge (EC). The EC may be imposed on all parcels with impervious area. The EC will be designed on an ERU comparative basis.
 3. Special Charge (SC). The SC may be imposed on parcels that are in an area specially benefited and served by a particular storm water management facility or service. This charge will be developed to reflect

the relative burden of each parcel in a particular area that may not be appropriate to allocate to all parcels throughout the City. The SC will be calculated on an ERU comparative basis unless dictated otherwise by resolution or ordinance.

- b. *Charge Component Modification.* The City Common Council may, by ordinance or resolution, modify the aforementioned charge components or establish additional charge components to provide a fair and reasonable distribution of the costs of the Storm Water Utility.
- c. *ERU Establishment.* The value one (1.0) ERU is established to be equivalent to 5,339 square feet of impervious area.
- d. *Impervious Area Determination.* The Director shall be responsible for determining the impervious area of parcels as necessary to establish and maintain this storm water utility, based on the best available information, including, but not limited to, data supplied by the City Assessor, aerial photography, the parcel owner, tenant or developer. The Director may require additional information as necessary to make the determination.
- e. *Storm Water Fees.* The City Common Council may, by resolution, set or adjust the Base Charge, Equivalent Charge and the Special Charge fees to recover the cost of the storm water management program. Storm water fees will be kept on file with the City Clerk and the Director. The fee for any individual parcel shall be the sum of all applicable charge components.
- f. *Billing Methodology.* The fee applicable to a parcel as established hereunder shall be billed to the parcel owner in the same manner as the water utility fees. The parcel owner shall be responsible for payment of the Storm Water Utility fee. A bill may be sent to a parcel that is not receiving other services from the City of Pewaukee. Late payment, failure to pay, and checks returned for insufficient funds shall be subject to the same penalties as established and documented by the City of Pewaukee for water utility fees. Unpaid charges may be assessed as a lien against the parcel pursuant to Sections 66.0821(4)(d) and 66.0809, Wisconsin Statutes.

26.07 ADJUSTMENTS, REBATES, AND CREDITS.

The City Common Council shall adopt, by resolution the criteria for providing adjustments, rebates, and credits. The application fee schedule for Adjustments, Rebates, and Credits will be established by the City Common Council through resolution.

- a. *Adjustments.* Adjustments may be considered at the request of parcel owners to correct the amount of impervious area upon which the bill is based, correct or update the parcel customer classification, or other items of consequence, upon the presentation of site specific information.
 - 1. *Adjustment Procedure.* Any parcel owner may apply for an adjustment to update or correct the information assigned to the parcel if the parcel owner believes there to be some information that is inaccurate. The following procedure for applying for an adjustment is established.
 - (a) A request for an adjustment may be submitted at any time. All such requests shall be submitted to the Director on forms

provided by the City, together with all supporting information and any application fees.

- (b) The Director may require the parcel owner, at parcel owner's expense, to provide supplemental information.
 2. *Granting of Adjustments.* When an application for an adjustment is deemed complete by the Director, the Director shall have sixty (60) days from the date that the complete application is accepted to:
 - (a) Grant the adjustment in whole;
 - (b) Grant the adjustment in part; or,
 - (c) Deny the adjustment.
 3. Adjustments applied for and granted in whole or in part, shall be applied to the next billing cycle following the date on which a complete application for the adjustment has been filed with the City of Pewaukee. The Director shall provide a letter to the owner documenting the award or denial of the adjustment as well as the grounds upon which the decision was based. The applicants may appeal such determination following the appeals process described in Sec. 26.08.
- b. *Rebates.* Parcel owners that install and properly maintain a rain garden or a rain barrel may be eligible for a one time rebate. Rebates may be updated or amended from time to time by the Director.
 1. *Technical and Procedural Criteria.* The Director shall establish specified technical and procedural criteria by which rebates will be granted. Copies of such technical and procedural criteria will be maintained by and be available from the Engineering Department.
 2. *Rebate Procedure.* Any parcel owner may apply for a rebate if, based on a review of available Technical and Procedural Criteria, the parcel owner believes there to be grounds for receiving a rebate. The following procedure for applying for a rebate is established.
 - (a) Parcel owners must make application to the Director on forms provided by the Director for such purpose.
 - (b) The application for any rebates must be in writing and must include the information necessary to document the eligibility for the rebate, accompanied by any application fee, and be in the format established by the Director. Incomplete applications will not be accepted by the Director.
 - (c) Where applicable as a condition for granting rebate, applicants must have an approved maintenance agreement on file with the Director.
 3. *Granting of Rebates.* When an application for a rebates is deemed complete by the Director, the Director shall have sixty (60) days from the date that the complete application is accepted to:

- (a) Grant the rebate in whole;
 - (b) Grant the rebate in part; or,
 - (c) Deny the rebate.
- 4. Rebates applied for and granted in whole or in part, shall be applied to the next billing cycle following the date on which a complete application for the rebate has been filed with the City of Pewaukee. The Director shall provide a letter to the owner documenting the award or denial of the rebate as well as the grounds upon which the decision was based. The applicants may appeal such determination following the appeals process described in Sec. 26.08.
- c. *Credits.* Credits may be considered for parcels that either receive a reduced level of storm water management service or result from privately owned and properly constructed and maintained storm water mitigating measures that allow the City of Pewaukee to realize a cost savings in some portion of their storm water management program.
 - (a) *Credit Policy.* The Director shall establish a credit policy and procedural criteria by which credits will be granted. Copies of such credit policy and procedural criteria will be maintained by and be available from the Engineering Department.
 - (b) *Credit Procedure.* Any parcel owner may apply for credit if, based on a review of available credit policy, the parcel owner believes there to be grounds for receiving credit to their storm water fee. The following procedure for applying for credit is established.
 - (a) Parcel owners must make application to the Director on forms provided by the Director for such purpose.
 - (b) The application for any credit must be in writing and must include the information necessary to document the eligibility for the credit, accompanied by any application fee, and be in the format established by the Director. Incomplete applications will not be accepted by the Director.
 - (c) Where applicable as a condition for granting credits, applicants must have an approved maintenance agreement on file with the Director.
 - (c) *Granting of Credits.* When an application for a credit is deemed complete by the Director, the Director shall have sixty (60) days from the date that the complete application is accepted to:
 - (a) Grant the adjustment in whole;
 - (b) Grant the adjustment in part; or,
 - (c) Deny the adjustment.
 - (d) Credits applied for and granted in whole or in part, shall be applied to the next billing cycle following the date on which a complete application for the credit has been filed with the City of Pewaukee. The Director shall

provide a letter to the owner documenting the award or denial of the adjustment as well as the grounds upon which the decision was based. The applicants may appeal such determination following the appeals process described in Sec. 26.08.

- (e) *Regular Review of Credit.* The Director may review the credit and the basis thereof periodically, and may terminate the credit if grounds are found to do so. If such credit is terminated, the parcel owner will be notified in writing of the grounds for revoking the credit. The owner may appeal such determination following the appeals process or, may, if possible, correct the deficiencies that caused the termination and reapply for the credit.

26.08 APPEALS.

Appeals regarding the stormwater utility charges levied herein or any Adjustment, Rebate, or Credit requests shall be made to the Public Works Commission of the City of Pewaukee. The Public Works Commission shall make the determination of the charges within the scope of this chapter after considering all the facts in each case. If the finding of the Public Works Commission is not acceptable the appeal may be elevated to the Common Council.

26.09 BUDGET EXCESS REVENUES.

The City shall separately account for the Storm Water Utility finances. The Storm Water Utility shall prepare an annual budget, which is to include all operation and maintenance costs, costs of borrowing, capital costs and other costs related to the operation of the storm water utility. The budget is subject to approval by the City Common Council. Any excess storm water revenues over expenditures in a year will be retained by the Fund for subsequent years' needs of the storm water utility.

26.10 LIBERAL INTERPRETATION.

This ordinance shall be interpreted liberally to secure the ends sought hereby.

26.11 SEVERABILITY.

- a. If any provision of this ordinance is found to be unlawful or unenforceable, the remaining provisions shall remain in effect.
- b. All ordinances or parts of ordinances conflicting with the provisions of this ordinance are repealed to the extent of such conflict.
- c. This ordinance shall take effect on and after its passage and publication.

Passed and Adopted by the Common Council of the City of Pewaukee September 7, 2010.

CITY OF PEWAUKEE

Scott Klein, Mayor

ATTEST:

Kelly Tarczewski, City Clerk

Date published: _____.

Appendix B

Draft Storm Water Utility Rate Resolution

RESOLUTION NO. 10-__-__

RESOLUTION ESTABLISHING STORM WATER UTILITY RATES

WHEREAS, the Common Council has established a Storm Water Utility within the City of Pewaukee pursuant to Ordinance No. 10-09; and

WHEREAS, in the establishment of the aforementioned Storm Water Utility, three charges have been established, including the Base Charge (BC), the Equivalency Charge (EC), and the Special Charge (SC); and

WHEREAS, the initial rate has not been set by the Ordinance.

NOW, THEREFORE, BE IT RESOLVED, that effective **September 7, 2010**, the monthly rates shall be as follows:

- A. Base Charge (BC) = \$0.00
- B. Equivalency Charge (EC) = \$10.00 per Equivalent Runoff Unit (ERU)
- C. Special Charge (SC) = \$0.00

The number of ERUs on a parcel is determined as follows:

- a. Developed Single-Family Residential Parcels
 - 1. All residential parcels are placed into three (3) tiers based on the zoning classification of the parcel.
 - a) Tier 1 (zoning categories Rs-1, Rs-2, and Rs-3) are assigned 1.3 ERUs per developed parcel.
 - b) Tier 2 (zoning categories Rs-4 and Rs-5) are assigned 1.1 ERUs per developed parcel.
 - c) Tier 3 (zoning categories Rs-6 and Rs-7) are assigned 0.75 ERUs per developed parcel.
- b. Developed Two-Family (Duplex) Residential Parcels
 - 1. All Two-Family residential parcels are assigned 1.1 ERUs per developed parcel.
- c. All Other Developed Parcels that are not either Single-Family or Two-Family (Duplex) Residential Parcels
 - 1. Are calculated by dividing the total square footage of measured impervious area on the parcel by the square footage of one (1.0) ERU which equals 5,339 square feet as defined in the Storm Water Utility Ordinance. The number of ERUs shall be rounded to the nearest one-tenth (0.1).
 - 2. In the instance where more than one parcel share common interest in impervious area (such as with some condominium developments), the impervious areas on

all related parcels shall be evenly divided amongst all property owners unless another distribution is established by ownership.

- d. Undeveloped Parcels (parcels with less than 267 square feet of impervious surface)
 - 1. Are assigned zero (0.0) ERUs
 - 2. Special considerations for single-family and two-family (duplex) residential parcels
 - (a) In the instance where a Developed Single-Family or Two-Family Residential Dwelling is situated on more than one parcel, a single parcel shall be identified as the primary and assigned the appropriate tier for that parcels zoning classification. The remaining parcel(s) shall be set to zero (0.0) ERUs.
 - (b) In the instance where a Developed Single-Family Residential Parcel does not contain a dwelling unit and is not associated with an adjacent parcel under common ownership that does contain a dwelling unit, but does contain other impervious surfaces of 267 square feet or greater, the parcel shall be treated in the same manner as Other Developed Parcels as described above.

Introduced and adopted at a regular meeting of the Common Council of the City of Pewaukee, this 7th day of September, 2010, a quorum of the Common Council being present.

CITY OF PEWAUKEE

Scott Klein, Mayor

ATTEST:

Kelly Tarczewski, Clerk/Treasurer

Appendix C

Draft Storm Water Utility Credits Resolution

RESOLUTION NO. 10-__-__

RESOLUTION ESTABLISHING STORM WATER UTILITY CREDITS AND REBATES

WHEREAS, the Common Council has established a Storm Water Utility within the City of Pewaukee pursuant to Ordinance No. 10-09; and

WHEREAS, in the establishment of the aforementioned Storm Water Utility, available credits and rebates need to be established; and

WHEREAS, available credits and rebates have not been defined by the Ordinance.

NOW, THEREFORE, BE IT RESOLVED, that effective September 7, 2010, credits shall be available under the following conditions:

a. Rebates

1. Property owners may be eligible for one-time rebates for Best Management Practices (BMPs) including Rain Barrels, Rain Gardens, and Porous Pavement.
2. Initial available rebates are as follows:
 - (a) Rain Barrel installations are eligible for a rebate of \$25 per rain barrel.
 - (b) Rain Garden installations are eligible for a rebate of \$1.00 per square foot up to \$250.
 - (c) Porous Pavement installations are eligible for a rebate of \$1.00 per square foot up to \$500.
3. BMPs must meet the requirements outlined in the Rebate Policy document maintained by the Director and requested using forms and any other applicable materials provided by the City.
4. Maintenance plans are required for BMP rebate approval.
5. BMPs available for rebate and their corresponding rebate amount are subject to change with technology and other factors. A current list of available eligible rebate BMPs and rebate amounts will be kept on file by the Director.

b. Storm Water Quantity Credit

Parcels with on-site storm water quantity facilities may be eligible for a credit of up to a fifteen percent (15%) percent reduction in the storm water equivalency charge (EC) portion of their fee. For purposes of this subsection the "100-year design storm", "50-year design storm", "25-year design storm," "10-year design storm," "5-year design storm," and "2 year design storm" shall be interpreted based upon twenty-four (24) hour storm events with 100, 50, 25, 10, 5 and 2 year recurrence intervals, based upon generally accepted engineering principles and models and following the guidance of the City's Storm Water Management Ordinance.

1. Facilities designed to reduce the discharge rates as follows and as accepted by the Director may be eligible for a five percent (5%) reduction in the storm water service charge for the parcel under the following conditions:

- (a) If the post-development peak discharge rate of the 100-year design storm event is reduced to the pre-development peak discharge event from the 50-year design storm event.
 - (b) If the post-development peak discharge rate of the 50-year design storm event is reduced to the pre-development peak discharge event from the 25-year design storm event.
 - (c) If the post-development peak discharge rate of the 25-year design storm event is reduced to the pre-development peak discharge event from the 10-year design storm event.
 - (d) If the post-development peak discharge rate of the 10-year design storm event is reduced to the pre-development peak discharge event from the 5-year design storm event.
2. Facilities designed to reduce the discharge rates as follows and as accepted by the Director may be eligible for a ten percent (10%) reduction in the storm water service charge for the parcel under the following conditions:
- (a) If the post-development peak discharge rate of the 100-year design storm event is reduced to the pre-development peak discharge event from the 25-year design storm event.
 - (b) If the post-development peak discharge rate of the 50-year design storm event is reduced to the pre-development peak discharge event from the 10-year design storm event.
 - (c) If the post-development peak discharge rate of the 25-year design storm event is reduced to the pre-development peak discharge event from the 5-year design storm event.
3. Facilities designed to reduce the discharge rates as follows and as accepted by the Director may be eligible for a fifteen percent (15%) reduction in the storm water service charge for the parcel under the following conditions:
- (a) If the post-development peak discharge rate of the 100-year design storm event is reduced to the pre-development peak discharge event from the 10-year design storm event.
 - (b) If the post-development peak discharge rate of the 50-year design storm event is reduced to the pre-development peak discharge event from the 5-year design storm event.
- c. Storm Water Quality Credits

Parcels with on-site storm water quality facilities may be eligible for a credit of up to a twenty-five percent (25%) percent reduction in the storm water equivalency charge (EC) portion of their fee. If storm water runoff from a parcel is treated by a properly constructed and maintained storm water quality best management practice (BMP) such as a retention or detention basin or other applicable water quality facility.

- 1. Credit for constructed storm water BMPs may equal up to twenty-five percent (25%) of the parcel storm water utility equivalency charge (EC) portion of their fee for BMPs that reduce total suspended solids (TSS) by at least eighty percent (80%).
- 2. BMPs treating less than the entire parcel may be considered when assigning the credit percentage.

3. BMPs treating multiple parcels may be considered when assigning the credit percentage.
4. BMP efficiency may be factored into the credit provided and shall be based on total suspended solids (TSS) removal of the BMP using the Source Loading and Management Model (SLAMM) or other methodology accepted by the Wisconsin Department of Natural Resources (WDNR).
5. No water quality BMP credits shall be considered for any “natural” features such as, but not limited to, rivers, wetlands, lakes, floodplains, or water impoundments.

d. Riparian and Isolated Area Credit

Parcels with certain drainage characteristics may be eligible for a credit of up to a fifteen percent (15%) percent reduction in the storm water equivalency charge (EC) portion of their fee.

1. If a parcel owner can show that one or more of the following conditions apply to the parcel in question, the parcel owner may be eligible for a credit to the storm water utility equivalency charge (EC) portion of their fee of up to fifteen percent (15%).
 - (a) If storm water runoff from a parcel discharges directly into the designated waterways and lakes or a tributary to the aforementioned waterways without crossing another parcel under different ownership or entering any portion of the City’s municipal separate storm sewer system (MS4); and the discharge does not result in exceeding federal, state or local water quality standards. (Riparian Credit)
 - (b) If storm water runoff from a parcel infiltrates into the ground without crossing another parcel under different ownership or entering any portion of the City’s municipal separate storm sewer system (MS4); and the discharge does not result in exceeding federal, state or local water quality standards. (Isolated Area Credit)
2. Considerations for providing Riparian and Isolate Area Credits include:
 - (a) Isolated areas shall not include any “natural” features such as, but not limited to, wetlands and lakes.
 - (b) The credit may be prorated by the ratio of the amount of impervious area that is identified as riparian or isolated compared to the total amount of impervious area on the parcel.
 - (c) A parcel owner that is eligible for a riparian or isolated area credit is not eligible for storm water quantity credit as outlined in Section B.
 - (d) A parcel owner that is eligible for a riparian or isolated area credit with engineered BMPs treating the riparian or isolated areas may apply for storm water quality credits as outlined in Section C.

e. General Considerations for providing Credits

1. In considering a request for credit, the Director may, at his or her discretion, separately examine multiple drainage areas on one parcel, or conversely aggregate parcels under the same ownership, and may recommend allowing a credit for a portion of a parcel or for a number of parcels if the characteristics of one or more drainage areas meets the criteria for obtaining credit.
2. In certain situations, the Director may, at his or her discretion, allow credits to parcel owners with BMPs that treat land areas not under common ownership.

3. Facilities must meet the requirements outlined in the Credit Policy document maintained by the Director and requested using forms and any other applicable materials provided by the City.
4. Maintenance plans are required for facility credit approval and the City may require periodic inspection or proof of continued operation/maintenance (not applicable to Riparian and Isolated Area Credits) to maintain credit status.
5. In considering a request for credit, the Director shall consider whether and to what extent the City's storm water management program cost has been lessened by the condition presented by the parcel owner. If the City's storm water management program cost has not been lessened, the request for a credit may be denied. If the City's storm water management program cost has been lessened, the customer may be eligible for a credit.
6. The Director shall develop policy guidance for providing credits to parcel owners that shall be consistently and fairly applied to all applicants for credit.
7. The City of Pewaukee is not required to identify parcels or situations where credit eligibility may apply.
8. The Director, at his or her discretion, may recommend allowing a credit that may result in the storm water utility equivalency charge (EC) portion of the fee to be as low as zero for a parcel for reasons other than as specifically set forth in this section provided that the credit is reasonable and not unjustly discriminatory.
9. An application fee must be submitted with appropriate forms and data as required by the City at the time of any Credit request unless waived by the Director or other City entity in responsible charge. Application and review fees are subject to change from time to time and are set by resolution of the Common Council or other normal means of setting fees. A current fee schedule is available from the Director.

Introduced and adopted at a regular meeting of the Common Council of the City of Pewaukee, this 7th day of September, 2010, a quorum of the Common Council being present.

CITY OF PEWAUKEE

Scott Klein, Mayor

ATTEST:

Kelly Tarczewski, Clerk/Treasurer

ADOPTED:

PUBLISHED: