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**STORM WATER
SERVICE CHARGE STUDY**

VILLAGE OF ELM GROVE
WAUKESHA COUNTY, WISCONSIN

JULY/2004

INTRODUCTION

The Village of Elm Grove has experienced major flooding in neighborhoods along Underwood Creek and throughout the Village since the 1870's. The most recent flood events occurred in 1973, 1997 and 1998 which were in excess of the 100-year recurrence interval level. . These events resulted in the loss of human life and in millions of dollars of loss in the form of property damage and lost revenues to downtown businesses. The ongoing threat of flooding, along with the requirement of flood insurance for several downtown property owners and businesses, have resulted in downtown vacancies and a low rate of investment in property improvements.

The Village hired Earth Tech in March of 2003 to complete a preliminary engineering analysis of flood management alternatives and to recommend one alternative for final design and construction. In conjunction with the preliminary engineering project, the Village also retained the Taurean Group to explore funding alternatives to implement the recommended flood management plan. The preliminary financial analysis identified three primary sources of funding for the plan: grants/partnerships, Tax Incremental Financing, and storm water utility service charges. In December 2003, the Village Board adopted Comprehensive Resolution No. 120203 in support of implementing the recommended flood management alternative outlined in the preliminary engineering report, including the implementation of a TIF district for the downtown and creation of a storm water utility and service charges. Final design of the approved flood management plan is underway and construction is expected to commence in 2005. In addition, the Village is also in the process of creating Tax Incremental District No. 2.

In January 2004, the Village retained Ruckert & Mielke, Inc. to assist with the creation of a storm water management utility for the Village, including the preparation of a service charge rate study and utility ordinance. This report describes findings of the service charge rate study, including the planning area, anticipated storm water management activities and estimated costs, the storm water service charge concept, alternative charging structures, and a recommended plan and implementation steps for adopting service charges.

PLANNING AREA

The planning area for this study includes all of the land within the Village of Elm Grove, approximately 3.96 square miles.

STORM WATER MANAGEMENT ACTIVITIES AND COSTS

Flood Management

Implementation of the flood management plan is expected to comprise the majority of the Village's storm water management program costs over the next 20 years. The following improvements will be constructed in 2005 through 2007 as part of the flood control plan:

Village Park Floodwater Storage—Wet floodwater storage will be constructed in the northeast corner of the Village Park. A portion of this storage will remain wet at all times, with the entire area filling with water during a flood. Native wetland species will be planted within the site, enhancing the park's existing wetland.

Removal of Concrete Channel Liner—Concrete lining the bottom of Underwood Creek in Village Park will be removed and the Creek will be reconstructed in a more natural state.

Dry Floodwater Storage—Dry floodwater storage will be constructed at the former Legion Post and TV John sites (1195 Legion Drive and 13555 Juneau Boulevard) and at the Villager Apartments – Sleepy Hollow Motel sites (12600 and 12650 Bluemound Road). These sites will remain dry most of the time, filling with water during a flood event.

Underground Overflow Culvert—An underground overflow culvert will be constructed underground beginning at the Legion Post property, running under Legion Drive, across Watertown Plank Road, through the Elm Grove Terrace Condominium property, and through the Department of Public Works yard. This culvert will be used to divert storm water around downtown during a flood event.

Operation and Maintenance

The Village currently provides and will continue to provide many routine operation and maintenance activities to manage the quantity and quality of storm water runoff within the Village. These activities may include street sweeping, leaf collection, catch basin cleaning, mowing, maintenance, repair and replacement of storm sewers, culverts, catch basins, ditches and detention ponds.

Administration and Regulatory Compliance

Planning, engineering, management and supervision of the routine operation and maintenance activities described above will require a portion of the time of the Village Manager, Village Engineer, Planning and Zoning Administrator, Assistant Planner, Clerk, Accountant, Assessor, Building Inspector, Attorney, Public Works Director, Public Safety Officials and others. Such activities may include budget preparation, review of appeals to charges, response to drainage complaints, supervision of operation and maintenance labor, development of storm water management policies, review and computation of storm water service charges, billing, accounting and auditing of utility funds.

In addition to administering the flood project, operation and maintenance activities, the Village, like many other communities in Wisconsin, is subject to increasing regulatory requirements. In 2000, the Village applied for a Wisconsin Pollution Discharge Elimination System (WPDES) permit, otherwise known as a Municipal Storm Water Discharge Permit, in compliance with Chapter NR216, Wis. Admin. Code. Under this storm water permit the Village will be required to undertake several activities designed to monitor and control pollution from storm water runoff pollution, including: 1) field screening of major outfalls from the Village storm water system to surface waters to detect illicit connections to the storm sewers or illicit dumping of pollutants; 2) computations of estimated total pollutant loadings from all major outfalls in the Village; 3) storm water sampling from representative areas in the Village to monitor pollutants; 4) water-quality analysis and in-stream monitoring of the biological community and habitat in receiving waters; 5) wet weather screening of storm water quality to identify areas that may be significant contributors of pollutants to the municipal separate storm sewer system; 6) development of a storm water management program including a wide variety of best management practices

designed to decrease pollutants in storm water runoff; 7) development of a program to detect and remove illicit discharges to the storm water system; 8) information and education programs to facilitate the proper management of materials and behaviors that may pollute storm water, including: used oil, toxic materials, yard waste, lawn care and car washing; and 9) submittal to the DNR of an annual report containing an assessment of the storm water management program and the effectiveness and adequacy of the best management practices implemented.

A second set of storm water discharge rules that applies to the Village of Elm Grove is contained in Chapter NR 151 of the Wis. Admin. Code, which took effect on October 1, 2002. NR 151 includes performance standards to control polluted runoff from agricultural lands, non-agricultural lands, and transportation sources. The non-agricultural standards include implementation of erosion and sediment control practices on construction sites, post-construction best management activities for new development and redevelopment sites, and certain requirements for reduction in pollutant loadings from developed urban areas. Under these standards, the Village will be required to reduce the amount of solid particles in storm water runoff from land within the Village by 20 percent by 2008 and by a total of 40 percent by 2013.

STORM WATER SERVICE CHARGE ALTERNATIVES

Wisconsin Statutes 66.0821 specifically authorizes Wisconsin municipalities to impose service charges on properties to fund storm water management activities and infrastructure. Service charges are fundamentally different than the traditional method of property taxes, in that service charges are based on proportionate use of the service, rather than property value. Within this general requirement that service charges be reasonably related to the amount of use of a service that a given property makes or is likely to make, municipalities have a relatively high amount of flexibility to design service charge structures to suit local objectives.

While the local municipality has flexibility in determining its storm water service charge rates, the rates must still be reasonable and the impacts on property owners and municipal staff should be considered carefully. The particular service charge rate structure that is developed has important implications for equity and fairness, the amount of storm water costs recovered from different classes of property, local municipal staff workload, revenue stability, and the ability of the local government to influence private storm water management efforts. Therefore, it is important to understand a full range of alternative service charge structures before selecting the preferred alternative. This section of the report describes a range of alternative rate structures and the general implications of each.

Alternative Storm Water Service Charge Structures

Development of an appropriate storm water service charge rate structure requires knowledge of three things: the nature of the storm water management system and its drainage basins; the nature of the costs to be recovered; and the characteristics of the property on which the charges are to be imposed. While there are many alternative rate structures, rate structures can generally be described by three key characteristics: 1) the level of specificity to which charges are computed for individual parcels; 2) the number and kinds of property characteristics by which charges are determined; and 3) the number and kinds of categories into which storm water costs are allocated

1. Specificity of Charges

The first basic characteristic is the level of specificity to which charges are computed for individual parcels. The level of specificity used in computing charges may range from having only a few categories of parcels (i.e. residential, industrial, retail, institutional), with uniform charges for all parcels within each category, to computing a distinct charge for each individual parcel based on the measured or estimated characteristics of that specific parcel. In between these two extremes lies a combination approach that is used by the majority of municipalities. In the combination approach, all single-family residential properties are assumed to have relatively uniform storm water runoff and are all assigned the same charge. Individual charges are computed for nonresidential parcels based on the actual characteristics of each parcel. There are additional variations to these three basic alternatives, for example developing more than one category of residential parcels to account for large variations in lot and home sizes.

2. Property Characteristics Used for Classification

Wisconsin Statutes 66.0821(4)(c) provides the following guidelines for classifying properties:

“For purposes of making equitable charges for all services rendered by a storm water and surface water sewerage system to users, the property served may be classified, taking into consideration the volume or peaking of storm water or surface water discharge that is caused by the are of impervious surfaces, topography, impervious surfaces and other surface characteristics, extent and reliability of mitigation or treatment measures available to service the property, apart from measures provided by the storm water and surface water sewerage system, and any other considerations that are reasonable relevant to a use made of the storm water and surface water sewerage system.”

Most municipalities in Wisconsin simply charge parcels according to the amount of measured or estimated impervious surface area on each parcel. However municipalities may opt to include other factors when classifying parcels. A few communities, including the City of Madison, include a factor for the amount of pervious surface area on each parcel. In addition, topography and surface characteristics such as soil type and vegetative cover may be factored in. Such characteristics are taken into account by the engineering methods and models used to estimate total storm water volume, peaking rates, and pollutant loadings for purposes of planning and designing storm water management systems. It is important to note, however, that while such data is used for designing storm water management systems, it is typically used at the level of an entire watershed or subwatershed. It is much more difficult to obtain and use such data to estimate storm water runoff for individual parcels, and is therefore not a common practice to include factors such as topography and soil types in the computation of storm water service charges.

3. Allocation of Storm Water Costs

The fourth characteristic that describes a service charge rate structure is the number and kinds of categories into which storm water costs are allocated. Different types of storm water management costs are caused by different factors. Certain administrative costs, for example, are either fixed, or are directly related to the number of parcels served. The costs of maintaining the

storm sewer system, ditches, and culverts are related to the number and size of these types of facilities, which in turn are related to the total land area served and the volume and peak rates of storm water runoff. Other operation and maintenance costs, such as street cleaning, catch basin cleaning, and maintenance of wet detention ponds, are related to the amount of pollutants in storm water runoff, which depends on the land use type and amount of area.

Most communities simplify their storm water service charges by assuming that the primary factor for storm water costs is the volume of runoff. Therefore, storm water costs are typically allocated solely on the basis of total storm water runoff from each parcel. However, as described above, certain storm water management costs are related to factors other than volume, and could therefore be allocated on another basis, such as the number of parcels served or the relative amount of pollutants generated by each parcel.

Summary

The choices made in each of the decision areas described above determine the general type of service charge rate structure that is developed. Within each general structure, there are additional slight variations in the way that the structure may be applied to the specific community. The alternatives described above yield a total of 12 types of service charge rate structures, which are summarized in Table 1. The table lists the rate structures generally from the least complicated to the most complicated structure. In Wisconsin, Alternative 5 is the most common method, although Alternatives 6 – 8 are also used in some communities. In other states, where storm water utilities and service charges are more common, some municipalities and multiple-municipality utility districts use some of the more complicated rate structures.

Service Charge Recommendations

It is recommended that the Village of Elm Grove implement rate structure Alternative 5. This rate structure has the following general characteristics:

1. A few broad categories for residential properties and individual charges computed for nonresidential properties—This alternative allows for both administrative ease and equity. Since residential properties have relatively less variation in terms of lot size and building size, they can be grouped into a few categories. Nonresidential properties, however, may differ from one another considerably. Therefore, computing individual charges for each nonresidential property results in fairer charges. Since nonresidential properties comprise a much smaller percentage of total properties than residential, individual charges may be computed for nonresidential properties without significant administrative effort.
2. Properties classified on the basis of impervious surface area only—Storm water charges based on impervious surface area only are the most common type of service charges in Wisconsin, and have been upheld by the Wisconsin Public Service Commission (PSC). The recommended capital improvements will be designed to control flooding caused by the volume and peaking rate of storm water runoff. The volume and peaking rates of storm water runoff, while related to other factors such as total area, soil types and surface

vegetation, are most directly related to impervious surface area. Therefore, it is reasonable to charge in proportion to impervious surface area.

3. Storm water costs allocated only to quantity of storm water runoff—The Village may, but is not required to, allocate administrative, water quality or other costs on a basis other than proportionate share of storm water runoff. Since the majority of the proposed storm water service charge revenues will be used to fund capital costs for the Village's flood management plan, it is not necessary to allocate costs to administration, water quality or other components at this time. If the Utility budget changes significantly in the future such that a significant portion of the costs are related to administrative or water quality services, the service charge structure could be modified at that time to allocate the other categories of cost according to other factors.

Within this general type of rate structure, there are some variations that the Village could consider with respect to the number and type of categories for residential properties. The following alternatives were proposed and considered for classifying multi-family dwelling units:

1. Classify multi-family units as commercial properties and compute storm water charges based on actual impervious area for each multi-family residential property.
2. Classify multi-family units as a separate category of residential property, but assign a fraction of one Equivalent Runoff Unit (ERU) per dwelling unit. The number of ERUs per unit would be determined based on the average amount of impervious area per multi-family unit, compared to the average amount per single-family unit.
3. Classify multi-family units as residential and establish a base number of ERUs per unit based on the average amount of *building* footprint per unit. For each multi-family property the parking lot and garage area would also be measured, and a number of ERUs would be assigned for those areas. The total number of ERUs per multi-family property would be the base ERU per unit times the number of units, plus the additional ERUs for any parking lot or garage areas. This methodology would account for the potentially substantial difference in impervious area between apartments with underground parking and those with outside or garage parking.

The first alternative is recommended for classifying multi-family residential properties, including condominium properties, with a minimum charge of 0.5 ERU per unit.

The service charge concepts, alternative rate structures and recommendations described above were reviewed with the Public Works/Utility Committee of the Village of Elm Grove.

SERVICE CHARGE RATE ANALYSIS

Storm Water Management Program Costs

An estimate of 2005 storm water management program costs and service charge revenue requirements was prepared for this study, as shown in Tables 2 through 4.

Table 2 shows a list of flood control improvements and estimated costs. As shown in the table, the total cost of flood control improvements is estimated to be approximately \$12.0 million, including planning and engineering, property and easement acquisitions, and construction, excluding financing costs.

The Village plans to finance the flood control plan with a combination of grants, TIF, and storm water utility charges, as shown in Table 3. The current grant funding totals \$3,375,000, leaving a net of \$8,665,360 to be funded by the Village. The TIF project plan includes \$5,061,558 of funding for flood control elements. Therefore, the net cost to be funded by the utility charges is estimated to be \$3,603,802. The Village anticipates financing the improvements with a 20-year bond issue. Based on the interest rates obtained for the Village's most recent bond issues, the total annual debt service for the improvements is estimated at \$65,500,475 per year, of which \$379,952 is to be funded with tax incremental revenues and \$270,522 is to be funded with storm water service charges and other revenues.

The total projected revenue requirements for the Utility are shown in Table 4. In addition to the debt service for flood management improvements, the Village estimates expenditures of approximately \$245,000 per year for administrative and public works labor, consulting services, auditing and legal services, the Public Works/Utility Committee and routine construction and maintenance of the existing storm water system. Total revenue requirements for the Utility are estimated to be \$895,475. Approximately \$379,952 of this requirement is expected to be funded by tax incremental revenues from TID No. 2. Another \$286,500 will be funded through a transfer from the Village General Fund. Approximately \$229,023 will be funded with storm water service charges.

Customer Base

As described above, the recommended service charge rate structure includes a relatively simple user charge. The user charges are to be computed based on impervious surface area on each property, with a uniform charge for single-family residential units, individual charges computed for nonresidential and multi-family residential development, and no charges for parcels without any impervious surface area.

In order to determine an appropriate schedule of rates to allocate costs fairly and generate sufficient revenues for the Utility, it was necessary to determine the land use and impervious surface area of every parcel in the Village. A preliminary database was prepared in 2000 to provide estimated impervious areas for the initial financial analysis performed in conjunction with the preliminary flood control plan. The County tax database was obtained listing all parcels in the Village by tax key, property owner, property address, zoning and parcel area in acres. A parcel map of the Village was overlaid with a digital topographic map obtained from Waukesha County, showing digitized building and driveway outlines. Digital aerial orthophotographs of the Village taken in 2000 were also used to capture new development since the date of the topographic map. The outlines of buildings and pavement were drawn in digitally on this map to create polygons within each parcel, which were identified as areas as building, pavement or open space. The digital parcel polygons were used to compute the impervious surface area of each parcel and summarize this information in the parcel database. For purposes of this rate study, the

preliminary database was reviewed for accuracy and was updated with information obtained from building permits issued since 2000.

Table 5 summarizes the existing parcels and land uses in the Village of Elm Grove. As shown, the majority of parcels in the Village, 76.3 percent, are single-family residential. Another 17.5 percent are multi-family residential or condominium parcels, and 4.0 percent are nonresidential parcels. Only 2.3 percent of parcels in the Village are undeveloped, and many of these parcels are the second lot of a double residential lot owned by a single property owner. Residential parcels with small amounts of impervious area were considered undeveloped if the impervious area was from buildings or pavement associated with a dwelling unit on an adjacent parcel owned by the same property owner.

In order to charge a uniform rate to all single-family and duplex residential units, an Equivalent Runoff Unit (ERU) was computed. An ERU is defined as the amount of impervious area on a typical single-family residential parcel. Each single-family and duplex residential dwelling unit will be assigned one (1) ERU, while other parcels will be assigned a number of ERUs based on the actual impervious area of the parcel.

An ERU is usually computed by taking the average impervious area per lot for all or a representative sample of the single-family residential parcels in a community. In the Village of Elm Grove, a relatively few extremely large single-family residences skew the average impervious area, as shown in Figure 1. The impervious areas of most single-family parcels are clustered around the median value of 4,660 square feet per parcel, rather than the average value of 5,136 square feet. Therefore, it was determined that 4,660 square feet represents a more typical parcel. Therefore, one ERU was defined as 4,660 square feet of impervious area.

ERUs were computed for all other parcels in the Village according to the following methodology:

Condominium residential—The actual impervious area of the parcel was divided equally among the number of dwelling units. The impervious area per unit was divided by 4,660 square feet to determine the number of ERUs per unit. This figure was then rounded to the nearest 0.50 ERUs for each dwelling unit.

Example computation for a 4-unit condominium development:

Property Address	Total Parcel Impervious Area	Impervious Area per Unit	ERUs per Unit	Assigned ERUs per Unit
15190 MARILYN DR	13,634	$13,634 / 4 = 3,409$	$3,409 / 4,660 = 0.731$	0.50
15180 MARILYN DR	13,634	$13,634 / 4 = 3,409$	$3,409 / 4,660 = 0.731$	0.50
15170 MARILYN DR	13,634	$13,634 / 4 = 3,409$	$3,409 / 4,660 = 0.731$	0.50
15160 MARILYN DR	13,634	$13,634 / 4 = 3,409$	$3,409 / 4,660 = 0.731$	0.50

Multi-family residential—The actual impervious area of the parcel was divided by 4,660 square feet and rounded to the nearest 0.50 to determine the number of computed ERUs. If this figure was less than 0.50 ERUs per dwelling unit, a minimum number of ERUs was assigned based on 0.50 ERU per dwelling unit.

Example computation for a 4-unit apartment building:

Property Address	Total Impervious Area	Computed ERUs	No. of Units	Assigned ERUs
15245 MARILYN DR	10,629	$10,629 / 4,660 = 2.281$	4	2.5

Nonresidential—The actual impervious area of the parcel was divided by 4,660 square feet and rounded to the nearest 0.50 to determine the number of ERUs.

Example Computation for a nonresidential property:

Property Address	Total Impervious Area	Computed ERUs	Assigned ERUs
13475 WATERTOWN PLANK RD	11,631	$11,631 / 4,660 = 2.50$	2.5

In total, there are currently 3,494.0 ERUs in the Village, as shown in Table 6.

Recommended Service Charge Rates

Based on the service charge revenue requirements, as shown in Table 4 and the total number of ERUs, it is recommended that the Village adopt a service charge rate of \$65.50.50 per ERU per year. Each single-family and duplex residential dwelling unit in the Village would pay a total annual charge of \$65.50, while other parcels would pay a multiple of this amount based on the number of ERUs assigned to the parcel. The recommended rate should allow the Village to collect approximately \$229,000 in service charge revenues in 2005.

BILLING

Under Wisconsin Statutes 66.0809, a municipality may collect utility service charges monthly, bimonthly, or quarterly, and may collect such charges in advance. If, as of June 21, 1996, the municipality had a practice of collecting utility charges using a billing period other than listed above, it may continue to collect utility charges using that billing period.

The Village currently bills sewer user charges on an annual basis for residential customers, and on a quarterly basis for commercial customers. Since the storm water service charges will, in most cases, be less per customer than the sewer user charges, the Village could consider billing all storm water service charges on an annual basis. However, if the charges for commercial customers are significant, it may be easier for those customers to budget for and pay a charge that is billed on a quarterly basis.

APPEALS AND CREDITS

As with any charge imposed by a municipality, there may be property owners that object to their charge. There are likely to be three types of objections brought to the Village: objections to the computation of the charge; objections to the entire methodology and rate structure; and requests for an adjustment or credit based on on-site detention/retention facilities. The first two types of objections should be handled through an appeals process, as they are based on a claim that the Village's rate structure or the manner in which it was applied to the particular parcel is somehow incorrect or discriminatory. The third type of objection does not claim that the rate structure or the computed charge is incorrect, but rather that there are special circumstances that warrant a reduction in the charge. For these types of cases, the Village may consider a policy for allowing credits to parcels under certain, carefully defined circumstances.

With respect to appeals, it is recommended that the Village provide for an appeals period each year after property owners are notified of the charges. During this appeals period, property owners could submit information supporting their claim that the charges are incorrect. Village staff would review the information and make recommendations regarding any adjustments that they believe are warranted. After the appeals period is closed, the committee or commission charged with reviewing charges would review the appeals and the recommendations from staff and determine the adjustments. A user may also complain to the Wisconsin Public Service Commission (PSC) that the rates, rules or practices are unreasonable or unjustly discriminatory. The PSC investigates these complaints, and if there appears to be sufficient cause, will conduct a public hearing on the matter.

In addition to the appeals provisions, some communities also allow credits for properties that have reduced use of the municipal storm sewerage system due to on-site detention facilities or natural features that cause the property to drain away from the municipal system. The Village storm water management ordinance requires that the peak flow discharge rates for storm water runoff from a new development or redevelopment site must be at or below the peak flow discharge rates of the property in its existing condition (i.e. prior to the new development or redevelopment). If the Village adopts storm water service charges that are based on impervious area only, there are two primary alternatives for the provision of credits, as follows:

1. Even if property owners are required to reduce post-development peak runoff rates below what they would otherwise be, the total volume of water that must be handled by the Village's storm sewer system will not be reduced. Therefore, the Village could choose not to offer credits.
2. There may be some benefit to the Village's system from having the peak rates of runoff from individual properties reduced. However, the Village's ordinance only requires that the peak rate of runoff from any property be maintained at its current level. The Village has to, at a minimum, plan for the volume and peak rate of runoff from the area within its drainage basin under existing conditions. Therefore, there is no benefit to the Village's system unless a property owner does more than is required by the ordinance. The Village could therefore choose to offer credits only for those properties that provide more detention than is required by ordinance.

It is recommended that the Village offer credits only to property owners that provide on-site mitigation that reduces the peak rate of storm water runoff below the level required by Village ordinance. The property owner should request a credit in writing and the owner at the owner's expense should supply all engineering studies, drawings, maps and other documentation. In addition, credits should be conditioned upon the property owner maintaining the facilities in proper working order.

IMPLEMENTATION

Like a sanitary sewer utility, the storm water utility is an unregulated utility, which means that the municipality, not the Public Service Commission (PSC), determines the amount of the service charge rates. A municipality may adopt service charges by resolution without approval from the PSC or any other governmental agency. Wisconsin statutes allow for the PSC involvement in service charge matters for unregulated utilities only in the case of formal complaints. If a user of the service or a holder of bonds secured by the service charges complains to the PSC that the rates are unreasonable, discriminatory or inadequate, the PSC will investigate the complaint and may hold a public hearing. The burden of proof is on the complainant to prove that the existing rates are unreasonable or unjustly discriminatory. If the PSC determines that the rates are unreasonable or unjustly discriminatory, it may order the utility to change its methods for charges in the future. However, the Commission is not authorized to make retroactive rate adjustments.

In order to implement the recommendations of this report and impose service charges to fund the Utility in 2005, the following implementation plan is recommended:

<u>Task:</u>	<u>Target Date:</u>
1. Public Works/Utility Committee review of the proposed ordinance establishing a storm water utility and service charges	May 17, 2004
2. Legislative Committee review of proposed ordinance	June 3, 2004
3. Village Board review and comment on draft ordinance	June 22, 2004
4. Combined open house for the stormwater utility and flood management project	June 29, 2004
5. Public hearing	July 27, 2004
6. Adoption of the ordinance, with any amendments	July/August, 2004
7. Adoption of the service charge rate schedule by resolution of the Village Board	July/August, 2004
8. Notification of property owners of the adopted rates and the computed charge for their parcel	August, 2004
9. Modification the Village's utility billing system to include the storm water service charges	August-September, 2004

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Table 1
Village of Elm Grove Storm Water Utility
General Categories of Storm Water Service Charge Rate Structures

Specificity of Charges	Property Characteristics	Cost Allocation	Alternative No.
Categories	Impervious Only	Quantity Only	1
		Multiple Components	2
	Impervious Plus	Quantity Only	3
		Multiple Components	4
Category plus Individual	Impervious Only	Quantity Only	5
		Multiple Components	6
	Impervious Plus	Quantity Only	7
		Multiple Components	8
Individual Charges	Impervious Only	Quantity Only	9
		Multiple Components	10
	Impervious Plus	Quantity Only	11
		Multiple Components	12

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Table 2
Village of Elm Grove Storm Water Utility
Flood Control Plan and Estimated Costs

	Total	Tax Incremental Financing
Flood Control - Construction		
Excavated storage in Village Park	\$935,076	\$650,000
Excavated storage at Legion Post - TV John Property	\$133,040	\$100,000
Excavated storage at Village Apts - Sleepy Hollow	\$728,811	\$250,000
Naturalization of Underwood Creek within Village Park	\$75,000	\$50,000
Overflow culvert construction	\$3,528,000	\$1,000,000
Department of Public Works yard swale	\$75,000	\$50,000
Remove TAPCO bridge	\$11,111	\$11,111
Remove Villager Apartments bridges	\$22,222	\$22,222
Subtotal	\$5,508,260	\$2,133,333
Property Acquisitions - Easements		
Villager Apartments	\$3,203,875	\$0
Sleepy Hollow Motel	\$1,180,625	\$1,180,625
TV John Building	\$370,100	\$370,100
Overflow culvert easements	\$40,000	\$40,000
Subtotal	\$4,794,600	\$1,590,725
Planning	\$800,000	\$400,000
Financing	\$937,500	\$937,500
Total Storm Water Costs 1	\$12,040,360	\$5,061,558

Source: Tax Incremental District No. 2 Project Plan, March 2, 2004

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Table 3
Village of Elm Grove Storm Water Utility
Estimated Capital Costs and Financing

Funding Sources:		
Flood Control Project Costs	\$12,040,360	
Less Grants	<u>(\$3,375,000)</u>	
Net Project Costs	\$8,665,360	
TIF Share	\$5,061,558	58%
Utility Share	<u>\$3,603,802</u>	42%
Net Project Costs	\$8,665,360	100%
Debt Service		
Net Project Costs	\$8,665,360	
Bond Issuance and Discount	<u>\$174,807</u>	
Total Principal Amount	\$8,840,167	
Annual P&I (20 yr, 4%)	\$650,475	
TIF Share	\$379,952	
Utility Share	\$270,523	

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Table 4
Village of Elm Grove Storm Water Utility
Projected Revenue Requirements

Administrative and DPW Labor	\$160,000
Consulting Services	\$20,000
Legal and Audit	\$5,000
Public Works/Utility Committee	\$20,000
Infrastructure Construction and Maintenance	\$40,000
Debt Service	\$650,475
Total Annual Budget	<u>\$895,475</u>
TIF Share of Storm Water Debt	(\$379,952)
Transfer from General Fund	(\$286,500)
Net Annual Utility Revenue Requirements	\$229,023

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Table 5
Village of Elm Grove Storm Water Utility
Summary of Existing Parcels and Land Uses

Land Use Category	Parcels		Acreage	
	Number	Percent	Number	Percent
Single Family	1,963	76.3%	1,249	73.3%
Condominium	432	16.8%	43	2.5%
Multi-family	17	0.7%	13	0.8%
Non-residential	104	4.0%	349	20.5%
Undeveloped	58	2.3%	50	2.9%
Total	2,574	100.0%	1,704	100.0%

Figure 1
Village of Elm Grove Storm Water Utility
Frequency Distribution of Impervious Area
Single-Family Residential

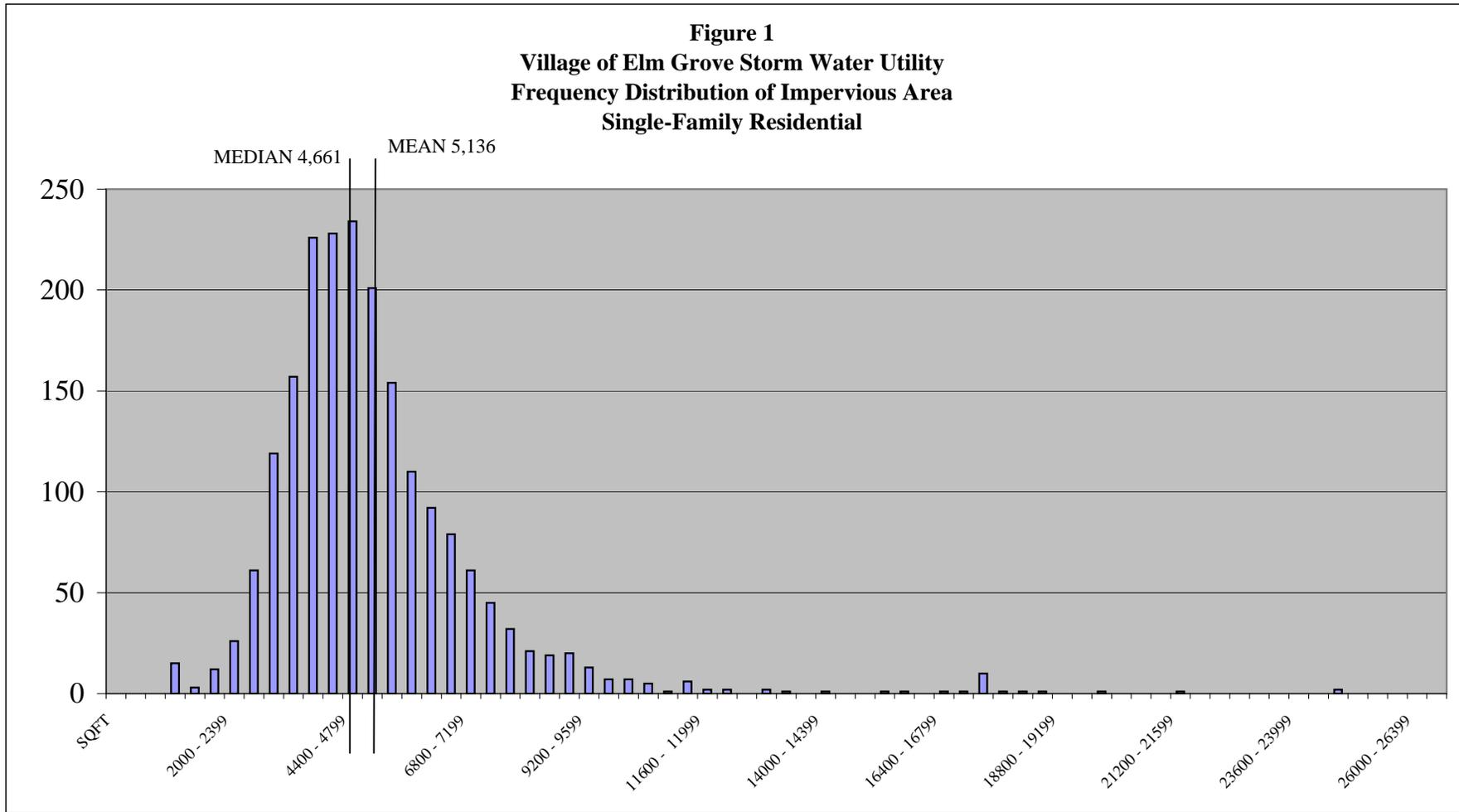


Table 6
Village of Elm Grove Storm Water Utility
Summary of Existing Equivalent Runoff Units

Land Use Category	Equivalent Runoff Units (ERUs)	Percent
Single Family	1,963.00	56%
Condominium	229.00	7%
Multi-family	41.00	1%
Non-residential	1,261.00	36%
Undeveloped	-	0%
Total	3,494.00	100%

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Table 7
Village of Elm Grove Storm Water Utility
User Charge Computation

Annual Revenue Requirements	\$229,023
Estimated ERU's	3,494.00
Annual Charge per ERU	\$65.50