

Public Facilities Needs Assessment

City of Waterloo, Wisconsin

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Introduction

The City of Waterloo is located in Jefferson County with a Year 2000 census population of approximately 3,300 residents. It is located in the northwestern portion of the county at the intersection of Wisconsin State Trunk Highway 19 (STH 19) and Wisconsin State Trunk Highway 89 (STH 89). The city is home to several successful businesses including TREK Bicycle, McKay Nursery, and Sheehy Mail Contractors.

With the migration of employment stretching east of Madison into municipalities such as Sun Prairie and Cottage Grove, the City is anticipating increased growth in the coming years. Currently, approximately 300 residential dwelling units in various developments are in the process of approval. As a result of this projected growth, the expansion, upgrade, and modernization of existing infrastructure will be needed to accommodate the projected growth. Thus, the City is considering imposing impact fees to future developments to generate a portion of monies needed for the infrastructure improvements.

The scope of this report will encompass the following tasks: perform a public facilities needs assessment which will inventory and evaluate existing public facilities, project the increase in population for the City of Waterloo to Year 2015, analyze future capital improvements needed to accommodate growth, and determine associated costs to construct these improvements. This methodology is in accordance with Wisconsin Statute 66.0617, which illustrates the impact fee implementation process. These statutes are provided in Appendix A of this report.

Public Facilities Needs Assessment

Generally, six groups of capital improvements are needed to accommodate growth in most municipalities, including the City of Waterloo. These groups are listed below:

- Parks and Recreation
- Public Safety
- Public Works
- Sanitary Sewer System
- Storm Water System
- Water System

It should be noted that a recent study was performed for Waterloo Water and Light and included a cost estimate analysis of the sanitary sewer systems and water supply systems; therefore, this report will not evaluate and analyze improvements to the capacity and storage of these systems. Moreover, it is our understanding that no immediate public safety improvements will be needed during the time period analyzed; therefore, public safety will not be considered in this report.

Parks and Recreation

The City of Waterloo has approximately 49 acres reserved for parks and recreation, with the focal point of this use being Fireman's Park located in the north central part of the City. Based on national publications and data, it is suggested that ten acres of park and recreation space should be reserved for every one thousand residents of a municipality. Given the approximately 3,300 people that currently reside in the City, adequate park and recreation land has been reserved for the current population.

Public Works

The City is in the process of replacing and upgrading its aging infrastructure to accommodate new residents. This process will continue as growth is anticipated in the City. Projects such as the reconstruction of STH 89 and Knowlton Street will replace and upgrade existing utilities and pavements as well as improve safety for the local collector and arterial roadway system.

It is anticipated that with the future growth to the area, facilities will continue to be expanded and upgraded to serve these developments. In addition to the expansion and upgrade of underground utilities, transportation needs such as roadway extensions and widening and intersection improvements. Also, additional equipment and storage facilities will be needed to provide proper maintenance of City infrastructure.

Sanitary Sewer System

While the capacity of this utility was analyzed in a previous study, this report will analyze the City's collection system. The City's sanitary sewer collection system is aging and undersized to accommodate growth in the area. Because of this, several collection lines will need to be upgraded in size while other collection lines will need to be extended to serve new developments.

Storm Water System

As the City of Waterloo continues to expand, many of the roadways that are constructed provide an urban cross-section, which necessitates the need for an adequate storm water system. In addition, many open spaces and vacant parcels within the City also require storm water systems and practices to provide adequate storm water flow as well as reduce the amount of storm water produced. Currently, one particular area of concern is a drainageway that runs from the south end of the City to the Mauneha River. This drainageway has been prone to flooding due to its lack of maintenance and little improvement to increase water flow. With development, the amount of storm water that will utilize this drainageway will likely increase, compounding the existing conditions already experienced by residents that front the drainageway.

Population Projections

The projection of population growth to the City of Waterloo is an important step in determining the impact of future growth on the community. This estimate will help determine the allocation of future infrastructure needs to the existing and future residents. From this, an impact fee for future residents will be allocated on a 'per dwelling unit' basis. To determine a realistic population projection, three methodologies were utilized, which are listed below:

- Wisconsin Department of Administration (DOA) population projections which are based on U.S. Census Data.
- Historical population data of the City, obtained from the U.S. Census Bureau
- Planned/proposed developments within the City in addition to historical data of known building permits

A detailed analysis of these methodologies is shown in Appendix B of this report and is illustrated in graph form in Appendix C.

From the analysis, it is estimated that the population of Waterloo will increase by 299 residents (8.8 percent) from 2005 to 2015 according to the DOA population projections. Based on historical population data, the population would increase by 434 residents (12.5 percent) during this time period. From projections based on known planned/proposed developments and an assumption of full build out in ten years, the population would increase by 994 residents (29.1 percent) during this same time period. Given that the Madison metropolitan area is currently, and will continue to, experience significant residential and commercial growth, the proximity of Waterloo to this region will make it more desirable for future residents. This condition will allow Waterloo to grow at a more rapid rate than DOA or historical census projections. Therefore, for purposes of this report, it is assumed that the population of Waterloo will increase by thirty percent over the next ten years.

Analysis

Development within the City of Waterloo will place new demands on the existing infrastructure. To accommodate this growth, extensions, upgrades, and new utilities will be needed. The following will list and summarize infrastructure projects needed to accommodate growth, project and allocate costs for these improvements, and equate the impact fee that should be imposed on development.

Projects

Parks and Recreation

As previously stated, the City currently has adequate land reserved for park and recreation areas for public use. However, only one major public park has active recreation facilities for the community to use throughout the year, Fireman's Park. In addition, much of the projected growth in the community will take place in the south end of the city which is not conveniently accessible. With the increase of the City's population anticipated, it is likely that an additional park of similar size and amenities will be needed to accommodate future use and event opportunities. Thus, it was assumed that a new ten-acre park would be developed in the City (likely on the south side) to accommodate future residents.

Public Works

The City of Waterloo has instituted an aggressive program of upgrading its local street system over the past ten years; it is now planning on upgrading several major collector/arterial roadways. Two roadways that are currently being planned for reconstruction are McKay Way and STH 89. In addition, due to the increase of traffic that will occur because of these developments, it is likely that improvements may also be needed at major intersections in the City, such as STH 19 with STH 89 and McKay Way. Improvements at these locations may include exclusive turning lanes, traffic signalization, and roadway widening.

Sanitary Sewer System

To provide sanitary sewer utilities to the new development areas, it is necessary to extend these utilities from their existing termini. In addition, to provide sufficient capacity for both existing and future uses, existing sanitary sewer pipes will need to be upgraded (enlarged) to handle these increased flows. Thus, extensions of sanitary infrastructure will be needed along STH 89 and McKay Way as well as the upgrade of existing infrastructure along STH 89 and Washington Street. To serve potential development in the southern portion of the City, an interceptor line is proposed to be located along the drainageway to the Maunasha River from CTH "O" northward to STH 19/89.

Storm Water System

As stated before, many reconstructed streets within the City of Waterloo are providing urban cross-sections with underground storm water systems to accommodate these needs. However, as new developments utilize existing storm water facilities, this system may become overwhelmed due to the increase in usage; therefore, other 'major' storm water facilities should be constructed to accommodate the storm water needs of anticipated growth. In addition, both the STH 89 project and the McKay Way project will extend storm sewer capacity to new areas of the community which are anticipated to need new service as a result of additional growth. The drainageway to the Maunasha River will also require improvements due to additional upstream development.

Cost Allocation and Calculations

A summary of improvements that are expected to be needed to accommodate growth in the City of Waterloo in the next ten years is shown in **Table 1**. While some improvements are required to benefit growth only, other improvements will benefit both existing and future residents of the City. Therefore, costs for each improvement were allocated to new development using one of two criteria:

- 100% allocation for the improvement will benefit new development only or is caused by new development
- A percentage allocation based on the projected increase in residents to the City compared to the existing population (which equates to thirty percent)

Table 1
IMPACT FEE COST ALLOCATION AND CALCULATION

Improvement	Estimated Cost	Cost Allocation	Estimated Cost
<i>Parks and Recreation</i>			
New 10-acre Park	<u>\$412,000</u>	30%	<u>\$123,600</u>
Total for Improvements	\$412,000		\$123,600
		IMPACT FEE	\$310.87
<i>Public Works</i>			
McKay Way Improvements	\$277,000	30%	\$83,100
STH 89 Improvements	\$170,000	30%	\$51,000
Intersection Improvements	<u>\$150,000</u>	30%	<u>\$45,000</u>
Total for Improvements	\$597,000		\$179,100
		IMPACT FEE	\$450.45
<i>Sanitary Sewer System</i>			
STH 89 Upgrade & Extension	\$86,000	100%	\$86,000
McKay Way Extension	\$60,000	100%	\$60,000
Washington Street Upgrade	\$76,000	30%	\$22,800
South Side Interceptor	<u>\$325,000</u>	30%	<u>\$97,500</u>
Total for Improvements	\$547,000		\$266,300
		IMPACT FEE	\$669.77
<i>Storm Sewer System</i>			
McKay Way Improvements	\$123,000	30%	\$36,900
Drainageway Acquisition	<u>\$147,000</u>	30%	<u>\$44,100</u>
Total for Improvements	\$270,000		\$81,000
		IMPACT FEE	\$203.72
Total for All Improvements	\$1,826,000		\$650,000
		IMPACT FEE	\$1,634.81
Impact fee – Per Dwelling Unit			

The cost for each improvement was allocated as the responsibility of future development. From this, the improvements for each group was tabulated and then converted to an impact fee per dwelling unit. This conversion was based on dividing the cost by the number of future residents to the City (994), then multiplying by 2.5 residents per dwelling unit, which is based on national standards.

As can be seen in **Table 1**, the amount of responsibility that new developments will have on future projects was primarily forty-one percent of total cost. This condition is due to the fact that much of the City's existing infrastructure is aging and would require replacement even if the identified growth would not occur. Thus, the impact fee per dwelling unit to account for their responsibility in improving infrastructure was equated to \$1,634.81.

Conclusion

This report assessed an impact fee to future dwelling units to be located in the City of Waterloo. The impact fee was based on existing infrastructure conditions and improvements needed to accommodate both existing and future residents.