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2020 Water Impact Fee Study

Report

Village of

Lannon, WI

October 2020





October 15, 2020

Ms. Brenda Klemmer, Clerk
20399 West Main Street
P.O. Box 456
Lannon, WI 53046

Re: 2020 Water Impact Fee Study–Revision 1 Draft
Village of Lannon, Wisconsin

Dear Brenda,

Enclosed is one reproducible copy of the draft 2020 Water Impact Fee Study–Revision 1 Draft. Please make this available for viewing or copying at Village Hall on or before Friday, October 16.

Please call 414-271-0771 with questions.

Sincerely,

STRAND ASSOCIATES, INC.®

Ben W. Wood, P.E.

Enclosure: Report

c/enc: Hector de la Mora, Village Attorney, Von Breisen and Roper

Report for Village of Lannon, Wisconsin

2020 Water Impact Fee Study

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October 2020



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INTRODUCTION

The Village of Lannon, Wisconsin (Village) has operated a municipal water utility since 2008. A separate Water Supply Public Facilities Needs Assessment and Impact Fee Study was completed in January 2008 and amended in March 2008. The original study was set up to collect water impact fees for the critical infrastructure required to complete the water system and included the costs of a second municipal grade well, water tower, and oversizing of local mains to provide transmission between these facilities. This effort resulted in the creation of Impact Fee Zone 1 (commonly referred to as “off-backbone”) and Impact Fee Zone 2 (commonly referred to as “on-backbone”).

The Village installed multiple water main extensions beyond the public facilities identified in the 2008 Impact Fee Study. These extensions were installed in 2008 as bid alternates. These bid alternates were the impetus for the 2018 Water Impact Fee Study, which was adopted by the Village Board in 2018. This provided a formal mechanism for the Village to recover the cost of the 2008 bid alternates. That study resulted in the creation of Impact Fee Zone 3 (commonly referred to as “2008 bid alternates”).

Presently, circumstances related to Village growth and water system expansion have evolved and this study seeks to amend all three impact fee zones to be consistent with the most up to date cost projections and growth projections. Furthermore, the Village Board desires that impact fee zones 2 and 3 be combined so that there is one impact fee for all properties adjacent to local mains (zone 2) and one impact fee for all other properties (zone 1).

Therefore, the Village intends to impose impact fees specific to the areas intended to be served by the water main bid alternates. The purpose of this assessment is to calculate and provide background information necessary to implement the potential impact fees. This study complies with the stipulations of Wisconsin Statute 66.0617.

AUTHORITY TO IMPOSE IMPACT FEES UNDER WISCONSIN STATUTES

Section 66.0617 of the Wisconsin Statutes allows for municipalities, including cities, villages, and towns, to impose impact fees on new land development to finance the capital costs of public facilities. The statute defines which public facilities and costs the impact fees may be used for and the regulations the municipality must follow before imposing the fees.

A. Eligible Facilities

Impact fees can be used to fund the capital costs to construct, expand, or improve public facility projects. The public facilities defined by the statute include highways, traffic control facilities, sewerage facilities, stormwater facilities, water facilities, park facilities, solid waste and recycling facilities, fire protection facilities, law enforcement facilities, emergency medical facilities, and libraries. Facilities required to address or correct existing deficiencies are not eligible.

B. Eligible Costs

Impact fees can be used to pay for the capital costs of new, expanded, or improved public facilities. The statute defines capital costs to include the construction cost (including land) and up to 10 percent of the

construction cost for legal, engineering, and design costs associated with the project. Impact fees are not allowed to pay for the correction of existing deficiencies or O&M costs.

C. Impact Fee Zones

Impact Fee Zones are allowed by the statute so that different impact fees can be applied to different areas so long as the difference is justified. Three impact fee zones exist in the Village as they serve distinctly different geographic areas with varied infrastructure costs. Each impact fee zone is calculated based on the facilities required to serve that zone.

D. Procedural Requirements

Before enacting or amending an ordinance that imposes impact fees, a municipality must perform the following:

1. Prepare a needs assessment for the public facilities for which it is anticipated that impact fees may be imposed. The public facilities needs assessment shall include the following:
 - a. An inventory of existing public facilities, including an identification of existing deficiencies in the quantity or quality of those public facilities for which it is anticipated that an impact fee may be imposed.
 - b. An identification of the new public facilities or improvements and expansions of existing public facilities that will be required because of new land development. This identification shall be based upon an explicitly identified level of service and standards.
 - c. A detailed estimate of the capital costs of providing the new public facilities or improvements and extensions previously mentioned, including an estimate of the effect of imposing impact fees on the affordability of housing within the municipality.
2. Hold a public hearing on the proposed impact fee ordinance or amendment. The public facilities assessment must be available for public inspection and copying at least 20 days before the hearing. The public hearing must be posted as a Class I notice under State Statute Chapter 985.

WATER SUPPLY PUBLIC FACILITIES NEEDS ASSESSMENT

The Village implemented a water supply impact fee in 2008 that was intended to cover the cost of critical facilities (Zone 1) and local 8-inch equivalent diameter water mains (Zone 2). Water main extensions were also installed in 2008 as bid alternates intended to serve future development and service areas that were later incorporated into a local water main impact fee in 2018. The Village installed additional water main in 2019 and seeks to incorporate that cost into this impact fee study. Additional water mains have been installed by developers for which the cost is not necessary to incorporate into the impact fee. The need for additional facilities has been explored recently relative to planned growth. The additional facilities are further discussed in this section.

A. Existing and Required Water Supply Facilities

The 2008 and 2018 Water Impact Fee Studies contemplated that water mains that have already been installed would be paid for by a reasonable projection of customers at the time they connect to the water mains. These studies also identified that the impact fee charged to the customer would include a portion of costs to pay for water system facilities that are required to serve every customer in the system, some of which have not yet been built. These common facilities were the Main Street Transmission Main (the “backbone”), the second source of supply, and an elevated storage facility. The Village completed a 2019 Water System Study and 2020 Preliminary Engineering Report for the expansion of the water system. These studies have recommended updated facilities needs compared to the 2008 and 2018 impact fee studies and will be used as the cost basis for this impact fee amendment.

The revised Impact Fee Zone 1 will be amended to incorporate the following information, which is also presented in Tables 1 and 2. The second well and water tower were previously intended to be funded by the 2008 Water Impact Fee (Impact Fee Zone 1). Now, the water tower and additional future source supply are identified as a Tax Increment District (TID) projects to be funded primarily with TID revenues and approximately 10 percent (\$450,000) of the projected cost will be included in the revised Impact Fee Zone 1. Oversizing of water mains related to the 2008 bid alternates and 2019 water main installation will be incorporated into the revised Impact Fee Zone 1. Additional water main oversizing and looping costs (\$650,000) anticipated to serve future growth areas, such as Lannon Village Hills, will be included in the revised Impact Fee Zone 1.

The revised Impact Fee Zone 2 will be amended to incorporate the following information, which is also presented in Tables 1 and 2. The 2008 Water Main Bid Alternates previously funded by the Impact Fee Zone 3 will now be included in the Impact Fee Zone 2, which is intended to encompass all local 8-inch equivalent diameter water mains installed before 2020. The unrecovered cost of the 2019 local water main installation will also be included in the revised Impact Fee Zone 2. Other water mains that have yet to be installed may be funded by a variety of mechanisms as development progresses.

1. Existing Facilities

Table 1 summarizes the existing water facilities in the Village.

Facility Name	Description	Year Installed	Financing Mechanism	Deficient as of 2020?
Main Street Transmission Main	12-inch Main (2,400 LF); 16-inch Main (1,200 LF)	1997	Village General Fund	No
Well Station No. 1	300 gpm shallow well; 160,000-gallon reservoir, two 530 gpm booster pumps	2006	Developer Contribution	No
Local Water Mains	12-inch Main (1,800 LF), 8-inch Main (1,500 LF)	2008 to 2020	Developer Contribution	No
Main Street Transmission Main Oversizing ("Backbone")	12-inch Main (5,120 LF)	2008	Zone 1 Impact Fee	No
Second Source and Water Tower Property Acquisition, Engineering, and Administration	Funds used to acquire and conduct original design of second source and water tower. Bids were not awarded.	2008	Zone 1 Impact Fee	No
Main Street Local Water Main	8-inch Equivalent Main (5,120 LF)	2008	Impact Fee Zone 2	No
Water Main Extensions (2008 Bid Alternates)	8-inch Equivalent Main (3,200 LF) from 2008 Water Main Bid Alternates	2008	2020 Revised Impact Fee Zone 2	No
Lannon Road Local Main	8-inch Equivalent Main (820 LF)	2019	Water Main Extension Rule and 2020 Revised Impact Fee Zone 2	No

LF=linear foot
gpm=gallons per minute

Table 1 Existing Water Facilities

2. Existing Deficiencies

According to the Wisconsin Department of Natural Resources' (WDNR) 2018 Sanitary Survey, the Village's water system deficiencies are related to operation and maintenance (O&M), not capital infrastructure.

3. Required Facilities

Table 2 describes facilities required to supply water to the service area as the Village continues to add water customers.

Facility Name	Description	Anticipated Year Required	Former Funding Mechanism	Proposed Funding Mechanism	Does This Address Existing Deficiencies?
Second Source of Supply	Lannon Estates Well Acquisition and Upgrades	2021	Impact Fee Zone 1	Impact Fee Zone 1 and In-Kind Contribution	No
Water Tower	Elevated Storage	2023	Impact Fee Zone 1	TID and Impact Fee Zone 1	No
Water Main Extensions to Existing Structures	USDA-RD Water System Expansion Project	2021	None	Special Assessments	No
Water Main Extensions to New Developments	As Needed	As Needed	Developer Contribution	Developer Contribution or TID	No
Transmission Main (2008 Bid Alternates)	12-inch Main Oversizing (3,200 LF) from 2008 Water Main Bid Alternates	2008	None	Impact Fee Zone 1	No
Lannon Road Transmission Main	12- and 16-inch Main Oversizing (820 LF)	2019	None	Impact Fee Zone 1	No
Water Transmission Main to Existing Structures	Lannon Village Hills, and Town Line Road	2030	None	Impact Fee Zone 1	No
Third Source of Supply	Deep Well or Interconnect to Neighbor	2025 to 2030	None	TID and Impact Fee Zone 1	No

USDA-RD=United States Department of Agriculture-Rural Development

Table 2 Required Water Facilities

B. Residential Equivalent Connections (REC) Calculation Methodology

The Village ordinances currently define a REC as a calculation of the amount of water that a particular user is projected to use compared to the average amount of water used by the existing water customer in the Village. Village ordinance section 63-6(2) uses a prescribed table that attempts to project the amount of water by a generic category of business or other use. Further complicating this methodology is the fact that the Village currently has a relatively low number of water customers (approximately 160) compared to the population of the Village (approximately 1,200). Therefore, in order to calculate a REC for a nonresidential customer that wants to connect, a complicated analysis of existing water billing records, sewer records, and other available information are used. As the Village's system is continually adding new customers, the calculation must be analyzed each time a nonresidential user intends to connect.

As an example, the tavern located at West Main Street connected to the system in 2019. The standard table in 63-6(2) indicated that the Village should have charged the tavern approximately 10 RECs that would have resulted in an impact fee charge of nearly \$120,000. The tavern argued that the amount of water expected to be used was far less than the amount resulting from the ordinance's prescribed methodology. This amount was not affordable, which presented a hardship to the tavern that was trying

to convert to safe, municipal water as the private well was contaminated with *E. coli* bacteria. The Village Board approved charging the tavern as a single REC and voted to assess the amount of water used after the first year based on water use records. Much effort was required to arrive at this decision and the Village desires a simpler method of determining RECs for nonresidential users.

The Village is planning to fund the USDA-RD water system expansions primarily with special assessments. On March 26, 2020, the Village Board approved a methodology for special assessing customers based on an equivalent meter basis as an equitable distribution of cost. The essence of the equivalent meter calculation is that customer is charged by the amount of water that the meter can allow to pass through the service pipe that delivers the water to the customer.

The proposed methodology for calculating RECs for the purpose of Impact Fee assessments moving forward is also recommended to be switched to an equivalent meter size methodology. This methodology will alleviate the burden of calculating average and projected water use each time a non-single-family residential connection is made, alleviates the need to review water billing records one year after the connection was made and back-charge the customer for the difference, and this methodology will be consistent with the special assessment methodology.

The proposed REC calculation table is presented in the following.

1. Residential Users–Number of RECs to Replace Table in Village Ordinance Sec. 63-5(2):

Residential User Type	REC
Single-Family Home	1.00
Duplex	2.00
Condominium (two bedrooms or more)	1.00 per unit
Multiple family (two bedrooms or more)	1.00 per unit
Multiple family (one bedroom or less)	0.75 per unit
Boarding Houses	Meter size as shown in 63-6(2), minimum 2.00 total structure, all uses

Table 3 Residential Equivalent Connection Calculation Proposed to Replace Table in Village Ordinance 63-5(2)

2. Nonresidential Users—Number of RECs to Replace Table in Village Ordinance Section 63-6(2)(b):

Meter Size (inches)	Meter Capacity (gpm)	Equivalent RECs
5/8*	25	1*
3/4*	35	1*
1	70	3
1 1/2	200	8
2	310	12
3	500 [†]	20
4	1,250	50
6	2,500	100

*5/8- and 3/4-inch meters are treated as the same size according to the PSCW.
[†]This value is the average capacity of a Compound and Turbo Series Badger Meter.

Table 4 Nonresidential Equivalent REC Calculation

C. Projected System Service Area Analysis

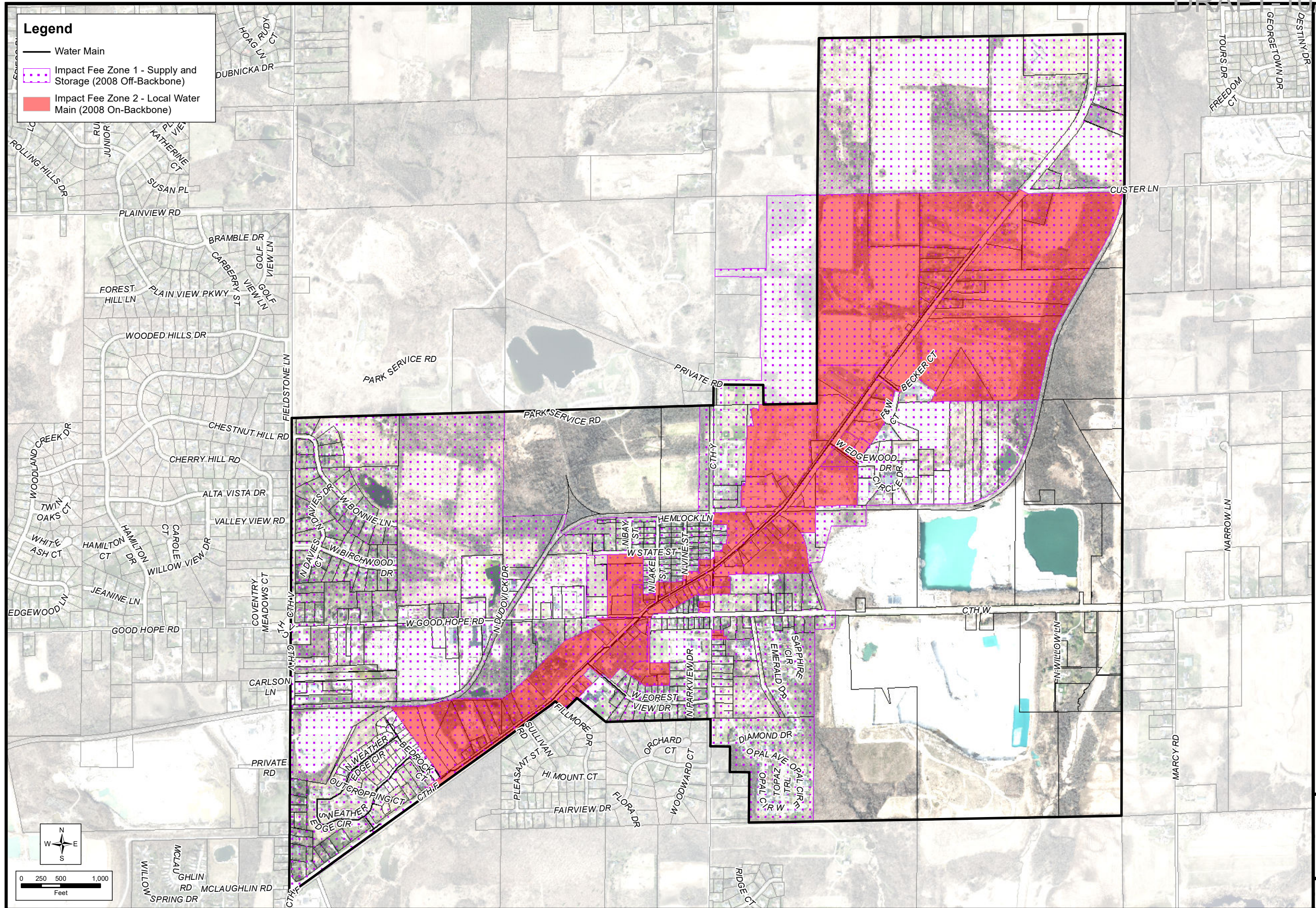
Figure 1 presents the overall water system service area and water impact fee zones. The projection of RECs and the capital costs used to generate the impact fee for Zones 1 and 2 will be modified in this water impact fee. In each case, the current balance of the capital cost for each zone will be compared to the projection of anticipated remaining connections.

The future number of RECs was estimated by identifying future developable land area with GIS and multiplying it by a density of three RECs per acre as recommended in the Village's 2017 Comprehensive Land Use Plan Amendment. Nonresidential properties were assumed to be 1 REC each unless enough information was known about the property to justify a higher projection.

1. Impact Fee Zone 1—Critical Infrastructure Common to Each Customer (2008 Off-Backbone Impact Fee)

The off-backbone impact fee area (Impact Fee Zone 1) covers the cost of infrastructure that is necessary for the water system to function in a manner that provides benefit to each customer. This includes water transmission mains (either oversizing or looping), additional source supply, and storage. This impact fee is applied to the entire anticipated water service area in the Village.

Figure 2 shows the water service area and projected 2035 growth areas. The 2035 growth areas were identified in the 2019 Water System Study. While the 2035 growth areas may not encompass the entire water service area, it is prudent for the Village to recover the costs associated with Impact Fee Zone 1 infrastructure within a reasonable time frame compared to the duration of the debt that the Village will hold. The year 2035 compares to approximately a 20-year payback period considering that some of the infrastructure has already been built.



**LOCAL WATER MAIN IMPACT FEE AREAS
2020 IMPACT FEE STUDY**

**VILLAGE OF LANNON
WAUKESHA COUNTY, WISCONSIN**



**FIGURE 1
3500.016**

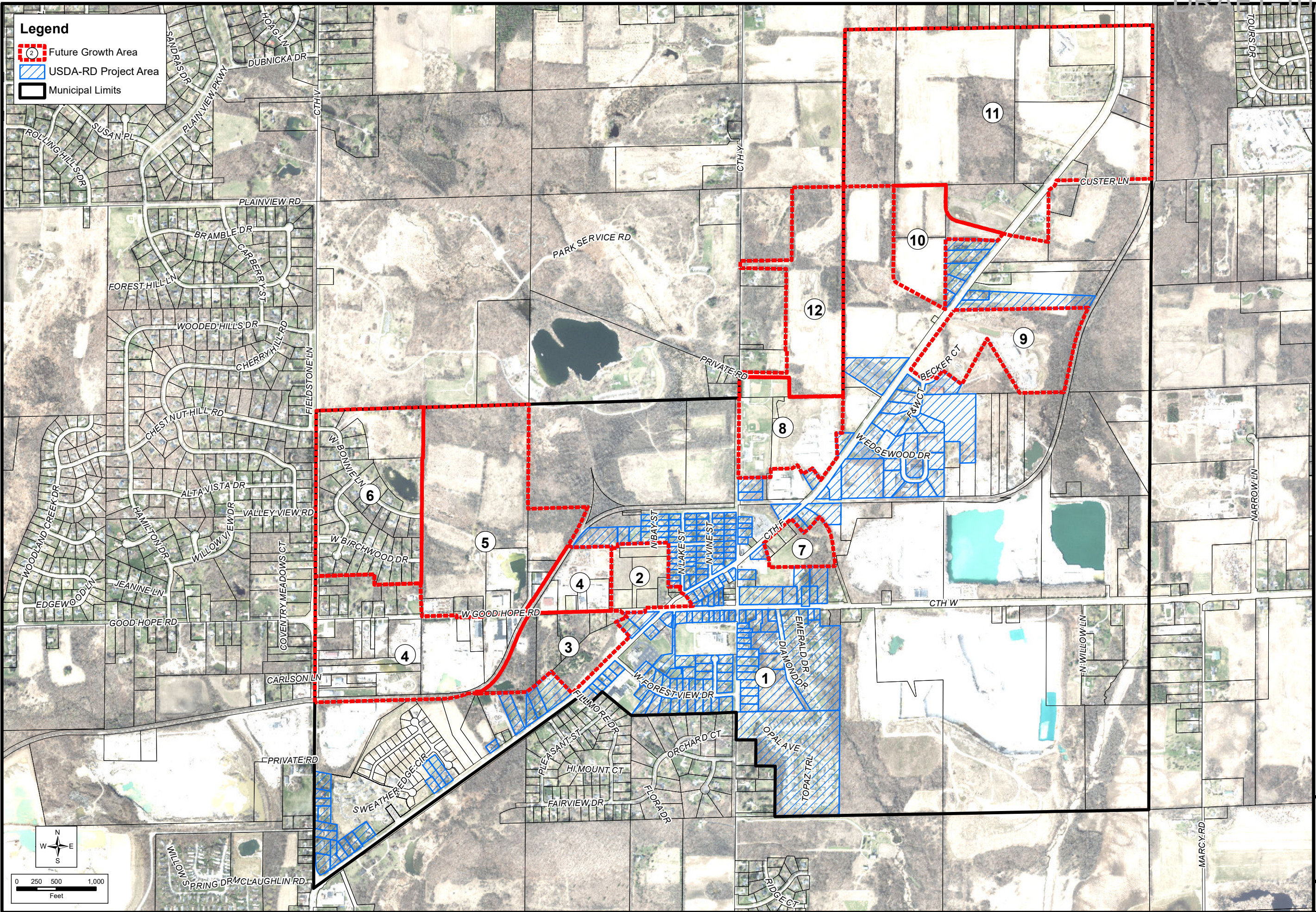


FIGURE 2
3500.016

Table 5 shows the resulting RECs from the 2035 growth projection. The number of RECs shown is comprised of the number of RECs that are remaining. As such, RECs from existing water connections as of September 2020 are not counted.

Area	Description	Residential RECs	Nonresidential RECs	Total RECs
1	USDA-RD Project Area: RECs counted from 2020 Preliminary Engineering Report; Lannon Estates' counted as 20 RECs based on meter size, but Impact Fees are being waived based on in-kind contribution and will not be counted here	179	43	222
2	Barnes and Blaze Property: Projected as three units per acre in 2018 Water Impact Fee Study	38	0	38
3	TID No. 2 Central Residential: Quataro property projected as 20 units; existing buildings counted as one REC each	23	1	24
4	Good Hope Road and Town Line Road: Existing structures counted as one REC; Quarry properties not counted; WE Energies site counted as one REC	10	13	23
5	Cawley Farm: Restoration plan indicates 100 dwelling units; Dudovich Drive counted as three RECs	100	3	103
6	Lannon Village Hills: Existing structures counted as one REC	45	0	45
7	Halquist Greenfield: No growth anticipated by 2035	0	0	0
8	Circle S Storage and Joeek's Park: Circle S counted as one REC because of no anticipated development by 2035; park counted as one REC	0	2	2
9	Rams Contracting: 5.5 acres of commercial development anticipated counted as one REC per acre; contractor's yard will remain	0	6	6
10	Overstone Phase 3: 84 units planned	84	0	84
11	Northeastern Area: Existing structures counted as one REC; three units per acre projected for 68.5 acres of buildable greenspace; church and cemetery not expected to connect by 2035	211	1	212
12	Overstone Menomonee Falls Development: No growth is anticipated by 2035	0	0	0
	Total	690	69	759

Note: Whispering Ridge Estates North, Rock Pointe Village, and Overstone Phases 1 and 2 are considered existing and are not included in this count.

Table 5 Zone 1 REC Summary

2. Impact Fee Zone 2—Local Water Main (2008 On-Backbone, 2008 Bid Alternates, 2019 Water Main)

Figure 3 shows the properties in Impact Fee Zone 2 that remain to be connected to the existing water mains. The tabulation of existing structures that have yet to connect to municipal water in Impact Fee Zone 2 is show on Figure 3.

Impact Fee Zone 2, formerly known from the 2008 Impact Fee Study as the “On-Backbone” area, includes the properties that are adjacent to existing water mains. These existing water mains include the main connecting the Whispering Ridge well to the site of the future water tower, the main installed as part of the 2008 bid alternates that branch off Main Street, and the 2019 Lannon Road water main. Impact Fee Zone 2 includes the local 8-inch equivalent water main necessary to provide service only to the customers in this area.

Table 6 shows the RECs that remain to be connected to the water system. Note that these RECs are a subset of Impact Fee Zone 1. Ultimately, the Impact Fee Zone 2 will add the Impact Fee Zone 1 to the cost of the infrastructure that is in Zone 2.

Impact Fee Zone 2 Properties	Residential RECs	Nonresidential RECs	Total RECs
Existing structures located on water main installed in 2008 as the “backbone”	23	15	38
Quartaro property new growth projected as 20 dwelling units	20	0	20
Circle S property projected as one REC based on no anticipated redevelopment by 2035	0	1	1
Blaze property projected as six RECs based on anticipated growth	6	0	6
Twelve existing structures located on water main installed in 2008 as bid alternates; one REC for Village-owned vacant parcel; The Barnes and RAMs property may not develop during this time frame or before the Impact Fee Zone 3 is paid by other connections	10	3	13
Overstone Condominiums Phase 2 (54 of 83 units have paid impact fees)	29	0	29
Two properties that are located adjacent to the Lannon Road water main extension to the Lannon Elementary School	2	0	2
Total	90	19	109

Table 6 Zone 2 REC Summary

**VILLAGE OF LANNON
WAUKESHA COUNTY, WISCONSIN**



CALCULATION OF IMPACT FEES

The allocation of construction costs and total impact fee per zone are presented in this section.

Table 7 shows the impact fees collected each year and a breakdown of which portion of each impact fee is attributable to each Impact Fee Zone. The values presented are the value at the time the impact fee was collected. The Impact Fees collected include actual building permits issued through September 2020 for new developments. Impact fees were collected in 2018 to 2020 for Impact Fee Zone 3 that will be included in the recalculation of Impact Fee Zone 2. The Rock Pointe Village Impact Fees are included in this tabulation as that developer agreement obligates the developer to pay an agreed total amount of \$1,125,000 that includes \$105,546.06 in sewer connection fees for 18 structures, 135 Zone 2 local water main only impact fees (\$459,270), and the remaining \$685,183.94 is counted toward the Impact Fee Zone 1. The Rock Point Village Fees will not change as the result of this study.

Year	Zone 1	Zone 2	Previous Zone 3 (included in 2020 Zone 2)
2008	(\$13,895)	(\$10,646)	\$0
2009	(\$9,644)	(\$5,564)	\$0
2010	(\$14,313)	\$0	\$0
2011	(\$30,890)	(\$6,076)	\$0
2012	(\$2,752)	(\$6,348)	\$0
2013	\$0	\$0	\$0
2014	(\$146,461)	(\$339,289)	\$0
2015	\$0	\$0	\$0
2016	(\$3,282)	(\$7,570)	\$0
2017	(\$34,290)	\$0	\$0
2018	(\$27,083)	\$0	(\$9,094)
2019	(\$145,922)	(\$8,312)	(\$79,656)
2020	(\$827,014)	(\$66,664)	(\$561,330)

Note: These values represent the amount collected by the Village in the designated year. The value for 2020 includes amounts obligated by Rock Pointe Village in the related developer agreement.

Table 7 Impact Fees Collected by the Village, Value per Year

A. Impact Fee Zone 1—Allocation of Costs and Recommended Impact Fee Schedule

Impact Fee Zone 1 infrastructure includes items necessary to serve every customer in the system. This includes existing and future infrastructure. The existing infrastructure that the Village had previously accounted for in the 2008 Impact Fee Study includes oversizing of the Main Street Transmission Main ("Backbone") completed in 2008 and engineering and site acquisition for future water tower and well supply. Required infrastructure that has to be incorporated into the Impact Fee Zone 1 includes transmission main oversizing to the 2008 bid alternate areas, the 2019 Lannon Road transmission main oversizing, the Lannon Estates Well acquisition and upgrades (\$401,000), and future water main looping

to existing structures on Town Line Road and Lannon Village Hills (\$650,000). Note that the water tower and additional future source supply are identified as a TID projects to be funded primarily with TID revenues and approximately 10 percent (\$450,000) of the projected cost will be included in the revised Impact Fee Zone 1.

1. Impact Fee Zone 1–Remaining Infrastructure Costs

Table 8 presents the impact fee capital expenditures, interest on related debt, and impact fees collected in each year. The balance of these costs in 2020 is \$977,744. The source of the information for the capital cost is described in the following. The impact fees collected:

- The Backbone Transmission main was installed in 2008 and the cost is based on actual bid costs.
- The Second Source and Water Tower cost includes legal, engineering, and property acquisition costs.
- The Transmission Main to Zone 3 includes the oversizing cost of the 2008 water main bid alternates that were installed.
- The Lannon Road Transmission Main includes the oversizing cost from the Lannon Elementary Water Main Extension in 2019.
- The Second Source of Supply reflects the cost opinion to acquire and upgrade the Lannon Estates large capacity well to municipal standards.
- The Water Transmission Main to Existing Structures and Third Source of Supply reflect projected costs for anticipated infrastructure required to serve future areas while maintaining a benefit to the entire system.
- These future costs include 1,000 LF of water main looping on Town Line Road at a \$500 per LF to account for rock removal and surface restoration; 3,000 LF of water main oversizing to future service areas including Townline Road, Lannon Village Hills, and East Main Street; and \$450,000 of cost share in future TID projects for storage and source supply.
- The forecasted cost of the TID projects is in excess of \$4,000,000 and the Impact Fee is planned to contribute approximately 10 percent to share in the common infrastructure.

Table 8 Impact Fee Zone 1–Capital Cost Balance

Year	Capital Description	Capital Expenditure or Obligation	Impact Fees Collected per Year	Interest on Prior Year's Debt	Year End Balance
2008	Water Main Oversizing; Source & Tower Legal, Engineering, Acquisition	\$372,499	(\$13,895)	\$0	\$358,604
2009	Source & Tower Legal, Engineering, Acquisition	\$96,280	(\$9,644)	\$14,344	\$459,584
2010	NA	\$0	(\$14,313)	\$18,383	\$463,655
2011	NA	\$0	(\$30,890)	\$18,546	\$451,311
2012	NA	\$0	(\$2,752)	\$18,052	\$466,611
2013	NA	\$0	\$0	\$18,664	\$485,276
2014	NA	\$0	(\$146,461)	\$19,411	\$358,226
2015	NA	\$0	\$0	\$14,329	\$372,555
2016	NA	\$0	(\$3,282)	\$14,902	\$384,175
2017	NA	\$0	(\$34,290)	\$15,367	\$365,252
2018	NA	\$0	(\$27,083)	\$10,958	\$349,127
2019	Water Main Oversizing	\$82,201	(\$145,922)	\$10,474	\$295,880
2020	Well Acquisition and Upgrade; Future Oversizing, Source, and Storage	\$1,500,001	(\$827,014)	\$8,876	\$977,744

Note: These costs account for the 4.0 percent interest rate on the water utility loan from 2008 to 2017 and the December 2017 refinanced interest rate of 3.0 percent for 2018 and beyond as indicated by Baker Tilly.

2. Impact Fee Zone 1–Impact Fee Schedule

The recommended Impact Fee Zone 1 per REC is calculated in 2020 by dividing the \$977,744 2020 capital cost balance by the 759 projected RECs from Table 5. The remaining schedule from 2021 through 2040 is calculated by applying the Village's water debt refinance interest rate of 3.0 percent. The resulting schedule is shown in Table 9.

Year	Recommended Zone 1 Impact Fee (Supply, Storage, and Transmission)
2020	\$1,288
2021	\$1,327
2022	\$1,367
2023	\$1,408
2024	\$1,450
2025	\$1,493
2026	\$1,538
2027	\$1,584
2028	\$1,632
2029	\$1,681
2030	\$1,731
2031	\$1,783
2032	\$1,837
2033	\$1,892
2034	\$1,949
2035	\$2,007
2036	\$2,067
2037	\$2,129
2038	\$2,193
2039	\$2,259
2040	\$2,327

**Table 9 Zone 1 Recommended
Impact Fee Per REC**

B. Impact Fee Zone 2—Allocation of Costs and Recommended Impact Fee Schedule

Impact Fee Zone 2 infrastructure includes the cost of the 8-inch equivalent water main for the Main Street water main (“Backbone”), the 2008 water main bid alternatives, and the installation of the public water service lateral to serve the properties along the route of the Lannon Road water main extension to serve the Lannon Elementary School.

1. Impact Fee Zone 2—Remaining Infrastructure Costs

Table 10 presents the impact fee capital costs that have been incurred for Zone 2 and shows that the remaining capital cost balance is \$673,643.

Year	Capital Description	Capital Expenditure or Obligation	Impact Fees Collected per Year	Interest on Prior Year's Debt	Year End Balance
2008	Local 8-inch Equivalent Water Mains	\$1,192,618	(\$10,646)	\$0	\$1,181,972
2009	NA	\$0	(\$5,564)	\$47,279	\$1,223,687
2010	NA	\$0	\$0	\$48,947	\$1,272,634
2011	NA	\$0	(\$6,076)	\$50,905	\$1,317,464
2012	NA	\$0	(\$6,348)	\$52,699	\$1,363,814
2013	NA	\$0	\$0	\$54,553	\$1,418,367
2014	NA	\$0	(\$339,289)	\$56,735	\$1,135,813
2015	NA	\$0	\$0	\$45,433	\$1,181,245
2016	NA	\$0	(\$7,570)	\$47,250	\$1,220,925
2017	NA	\$0	\$0	\$48,837	\$1,269,762
2018	NA	\$0	(\$9,094)	\$38,093	\$1,298,761
2019	Local 8-IN Equivalent Water Mains	\$13,970	(\$87,968)	\$38,963	\$1,263,725
2020	NA	\$0	(\$627,994)	\$37,912	\$673,643

Note: These costs account for the 4.0 percent interest rate on the water utility loan from 2008 to 2017 and the December 2017 refinanced interest rate of 3.0 percent for 2018 and beyond as indicated by Baker Tilly.

Table 10 Impact Fee Zone 2—Capital Cost Balance

2. Impact Fee Zone 2–Impact Fee Schedule

The recommended Impact Fee Zone 2 per REC (local water main portion) is calculated in 2020 by dividing the \$673,643 2020 capital cost balance by the 109 projected RECs from Table 6. The Impact Fee Zone 1 is added to the local water main portion to account for supply, storage, and transmission main infrastructure that benefits the entire system. The remaining schedule from 2021 through 2040 is calculated by applying the Village's water debt refinance interest rate of 3.0 percent. The resulting schedule is shown in Table 11.

Year	Zone 2 Local Water Main Portion	Supply, Storage and Transmission Portion (Zone 1 Impact Fee)	Recommended Total Impact Fee Zone 2
2020	\$6,180	\$1,288	\$7,468
2021	\$6,366	\$1,327	\$7,692
2022	\$6,557	\$1,367	\$7,923
2023	\$6,753	\$1,408	\$8,161
2024	\$6,956	\$1,450	\$8,406
2025	\$7,165	\$1,493	\$8,658
2026	\$7,379	\$1,538	\$8,918
2027	\$7,601	\$1,584	\$9,185
2028	\$7,829	\$1,632	\$9,461
2029	\$8,064	\$1,681	\$9,745
2030	\$8,306	\$1,731	\$10,037
2031	\$8,555	\$1,783	\$10,338
2032	\$8,812	\$1,837	\$10,648
2033	\$9,076	\$1,892	\$10,968
2034	\$9,348	\$1,949	\$11,297
2035	\$9,629	\$2,007	\$11,636
2036	\$9,917	\$2,067	\$11,985
2037	\$10,215	\$2,129	\$12,344
2038	\$10,521	\$2,193	\$12,714
2039	\$10,837	\$2,259	\$13,096
2040	\$11,162	\$2,327	\$13,489

Table 11 Zone 2 Recommended Impact Fee Per REC

IMPACT TO AFFORDABLE HOUSING

Calculating the impact on housing affordability is a requirement of Wisconsin Statute 66.0617. The impact to housing cost is calculated in this section according to impact fee zone and includes the analysis of both a \$200,000 home and a \$400,000 home. The \$200,000 value is representative of an approximate median home value for existing single-family homes within the service area. The \$400,000 value is representative of an approximate median home value of both single-family homes recently built in the

Whispering Ridge Estates Subdivision and individual condo units in the Overstone Subdivision that have been built within the last five years. This analysis is only presented for the 2020 impact fee schedules as home values are expected to increase at a similar rate as the annual escalation in the impact fee amount.

A. Impact Fee Zone 1—Supply and Storage (2008 Off-Backbone Impact Fee)

Table 12 presents the impact on housing affordability for Impact Fee Zone 1. Note that those properties located solely in this zone, and not also in a local water main impact fee zone, will still require future local water mains. Those future local water mains may be funded through a developer's water main extension, special assessment, or a future impact fee zone. With a 10 percent down payment, the proposed impact fee would increase the amount to be financed for the house by \$1,159. Assuming an average credit score of 680 and a 3.8 annual interest rate for a 30-year fixed rate mortgage, the impact fee would increase the annual housing costs by approximately \$97 for a \$200,000 home and require an approximate additional \$345 (0.66 percent) of annual income. For a \$400,000 house, the same assumptions indicate the increase in annual housing cost to be approximately \$85, requiring an additional annual income of approximately \$302 (0.29 percent).

	\$200,000 Home		\$400,000 Home	
	Without Impact Fee	With Impact Fee	Without Impact Fee	With Impact Fee
Home Price	\$200,000	\$201,288	\$400,000	\$401,288
Down Payment	\$20,000	\$20,129	\$40,000	\$40,129
Amount Financed	\$180,000	\$181,159	\$360,000	\$361,159
Principal and Interest Payments ¹	\$10,728	\$10,800	\$21,456	\$21,516
Taxes ²	\$2,914	\$2,933	\$5,828	\$5,847
Insurance ³	\$900	\$906	\$1,800	\$1,806
Annual Housing Cost	\$14,542	\$14,639	\$29,084	\$29,169
Income Required ⁴	\$51,936	\$52,281	\$103,871	\$104,173
Additional Annual Housing Cost		\$97		\$85
Additional Income Required		\$345		\$302
Additional Income Required		0.66%		0.29%

Notes:

¹Assumes 3.79-3.82 annual percentage rate, 30-year fixed rate mortgage, 680 credit score (Source: Waukesha State Bank)

²Applies a 14.57 mill rate (Source: Wisconsin Department of Revenue City and Village Property Taxes 2019 Gross Tax Rate)

³Assumes 5 percent

⁴Assumes that housing is 28 percent of income as recommended for a standard conventional mortgage (Source: DollarTimes.com)

Table 12 Impact to Housing Affordability—Impact Fee Zone 1

B. Impact Fee Zone 2–Local Water Main (2008 On-Backbone Fee)

Table 13 presents the impact on housing affordability for Impact Fee Zone 2. With a 10 percent down payment, the proposed impact fee would increase the amount to be financed for the house by \$6,722. Assuming an average credit score of 680 and a 3.96 annual interest rate for a 30-year fixed rate mortgage, the impact fee would increase the annual housing costs by approximately \$982 for a \$200,000 home and require an approximate additional \$4,066 (7.83 percent) of annual income. For a \$400,000 house, the same assumptions indicate the increase in annual housing cost to be approximately \$1,714, requiring an additional annual income of approximately \$6,123 (5.89 percent).

	\$200,000 Home			\$400,000 Home	
	Without Impact Fee	With Impact Fee		Without Impact Fee	With Impact Fee
Home Price	\$200,000	\$207,468		\$400,000	\$407,468
Down Payment	\$20,000	\$20,747		\$40,000	\$40,747
Amount Financed	\$180,000	\$186,722		\$360,000	\$366,722
Principal and Interest Payments ¹	\$10,728	\$11,724		\$21,456	\$23,028
Taxes ²	\$2,914	\$3,023		\$5,828	\$5,937
Insurance ³	\$900	\$934		\$1,800	\$1,834
Annual Housing Cost	\$14,542	\$15,680		\$29,084	\$30,798
Income Required ⁴	\$51,936	\$56,002		\$103,871	\$109,994
Additional Annual Housing Cost		\$1,138			\$1,714
Additional Income Required		\$4,066			\$6,123
Additional Income Required		7.83%			5.89%

Notes:

¹Assumes 3.95-3.97 annual percentage rate, 30-year fixed rate mortgage, 680 credit score (Source: Waukesha State Bank)

²Applies a 14.57 mill rate (Source: Wisconsin Department of Revenue City and Village Property Taxes 2019 Gross Tax Rate)

³Assumes 5 percent

⁴Assumes that housing is 28 percent of income as recommended for a standard conventional mortgage (Source: DollarTimes.com)

Table 13 Impact to Housing Affordability–Impact Fee Zone 2

RECOMMENDED IMPACT FEE SCHEDULE AND ORDINANCE REVISIONS

The following revisions are recommended to the Village Ordinances, subject to Village Attorney review.

A. Section 63-4(1)–Impact Fee Map

The map referenced in the ordinance as Appendix A should be replaced with Figure 1 from this report.

B. Section 63-5(1)–Impact Fee Schedule

The Impact Fee Schedule should be replaced with Table 14 from this report.

Year	Zone 1 Impact Fee (Per REC)	Impact Fee Zone 2 (Per REC)
2020	\$1,288	\$7,468
2021	\$1,327	\$7,692
2022	\$1,367	\$7,923
2023	\$1,408	\$8,161
2024	\$1,450	\$8,406
2025	\$1,493	\$8,658
2026	\$1,538	\$8,918
2027	\$1,584	\$9,185
2028	\$1,632	\$9,461
2029	\$1,681	\$9,745
2030	\$1,731	\$10,037
2031	\$1,783	\$10,338
2032	\$1,837	\$10,648
2033	\$1,892	\$10,968
2034	\$1,949	\$11,297
2035	\$2,007	\$11,636
2036	\$2,067	\$11,985
2037	\$2,129	\$12,344
2038	\$2,193	\$12,714
2039	\$2,259	\$13,096
2040	\$2,327	\$13,489

Note: Annual increase represents the interest rate of the Village's loan as refinanced in December 2017.

Table 14 Recommended Impact Fee Schedule for Inclusion in Section 63-5 of the Village Code of Ordinances

C. Section 63-5(2)–Residential REC Table

The table shown in the ordinance for determining residential RECs should be replaced with Table 3 from this report, which is repeated in the following.

Residential User Type	REC
Single-Family Home	1.00
Duplex	2.00
Condominium (two bedrooms or more)	1.00 per unit
Multiple family (two bedrooms or more)	1.00 per unit
Multiple family (one bedroom or less)	0.75 per unit
Boarding Houses	Meter Size as shown in 63-6(2), minimum 2.00 total structure, all uses

Table 3 Residential Equivalent Connection Calculation Proposed to Replace Table in Village Ordinance 63-5(2)

D. Section 63-6(2)–Non-Residential REC Table

Paragraphs 63-6(2) subsections (a) and (b) should be replaced with the following paragraph, shown in *italics*, and the table should be replaced with Table 4 from this report, which is repeated in the following.

(a) For all nonresidential users of the water system, anticipated water consumption shall be determined from the following table based on the water meter size installed as confirmed by the building inspector.

Meter Size (inches)	Meter Capacity (gpm)	Equivalent RECs
5/8*	25	1*
3/4*	35	1*
1	70	3
1-1/2	200	8
2	310	12
3	500 ^t	20
4	1,250	50
6	2,500	100

*5/8-inch and 3/4-inch meters are treated as the same size according to the PSCW
^tThis value is the average capacity of a Compound and Turbo Series Badger Meter

Table 4 Nonresidential Equivalent REC Calculation

(b) If the village board determines that the information in the table does not accurately reflect the user's anticipated water consumption, the village board may estimate water consumption, in which case the RECs will be determined by dividing the estimated water consumption by the

water consumption for 1 REC. The minimum REC for any property shall not be less than 1.00 REC. If the village board estimates the water consumption apart from the table below, then upon completion of the REC computations, the village shall calculate and impose an interim impact fee under the schedule set out in section 63-5. Since the impact fee determined under subsection (2)(b) of this section is based upon the anticipated impact of the estimated intended usage, the village may recalculate the impact fee based upon the average annual usage by a nonresidential account. The village may review the actual usage during the first 36 months after each nonresidential account at such development has been established with the water utility.

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