

Comparison of Annual Costs Associated With Home Ownership in La Crosse County



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Purpose: The intent of this report is to calculate and consider the true costs of homeownership in various municipalities throughout La Crosse County. While tax rate differences are often cited as a major reason people choose their housing location, tax rate differences do not alone represent the full financial considerations necessary for homeownership. Foreclosure counselors share anecdotal evidence that rural residents seeking lower cost of living expense may be pushed into foreclosure, or seek funding assistance because of unanticipated expenditures associated with wells, well pumps, or sanitary sewer service failures. User charges, may also add to additional expenditures not considered in a projected monthly payment, but are directly tied to homeownership. It is hoped that this review will help illustrate the broad spectrum of location dependent costs associated with owning a home.

Cost Considerations: Properly operating and maintaining a home consists of several factors. Each of these considerations may be different in differing municipalities depending on various expenditures. For example – townships are generally not served by a municipal sewer and water system. While there are always exceptions (Mindoro & St. Joseph Sanitary districts, portions of the town of Shelby), this factor influences additional costs that may not be considered by the general homebuyer. The following expenditures were reviewed to help understand the full range of potential homeowner expenses:

1. Property taxes
2. Private septic system versus municipal sanitary sewer costs
3. Private well system versus municipal water system costs
4. Storm water charges
5. Garbage/Recycling costs

This report will detail these costs, as well as help explain the structure of these costs and how they were calculated. Due to the number of municipalities in La Crosse County, and the total number of potential varying cost considerations, only the following municipalities were considered for comparison purposes: City of La Crosse, City of Onalaska, Village of Holmen, Village of West Salem, Town of Onalaska, and the Town of Farmington. The Town of Onalaska was considered over other towns, as it is on Hwy 53/35 and is considered a relatively urban township, while the Town of Farmington is considered a rural township.

Property Taxes: Local municipal tax rates fluctuate significantly throughout La Crosse County. Municipal net mill rates (combined mill rate for local municipality, school district, Western Technical College, La Crosse County and State of Wisconsin) may fluctuate even within the same municipality, depending on the school district boundary. For example, boundaries of the Holmen school district, the Onalaska school district, the West Salem school district and the Melrose-Mindoro school district all lay within the Town of Farmington. The Town of Onalaska is divided between the Holmen school district the Onalaska school district and the Melrose-Mindoro school district. For ease of computation, only one school district was used in the cost comparison. Annual and monthly tax expenditures were calculated for a home of equal value (\$154,000), which is based on the approximate La Crosse County median housing value (\$153,600 in 2013). Property tax rates were based on 2013 mill rates. An estimated 30 year mortgage with an estimated annualized percentage rate of 4.5% was utilized to determine annual and monthly mortgage related expenses.

Source: <http://www.co.la-crosse.wi.us/zoning/real/docs/MillRates2009-2013.pdf>

Sanitary Sewer Services: Sanitary sewer services differ throughout La Crosse County. All of La Crosse’s villages (Holmen, West Salem, Bangor & Rockland) and cities (La Crosse & Onalaska) are served by a municipal utility system. Wastewater in the City of Onalaska is sent to the City of La Crosse’s wastewater treatment plant, and costs are charged based on annual volumes of wastewater. The Public Service Commission (a quasi-governmental body that oversees the operations of utility districts) maintains a database on its website that illustrates utility rates for public water systems in the state. For comparison purposes, a quarterly volume of 18,750 gallons was used following PSC cost comparison practice. While the quarterly volume sales will fluctuate per user, quarterly pumping volumes for the City of Onalaska and Village of Holmen indicated higher than this average. City of La Crosse and Village of West Salem residential water sales indicated quarterly pumping volumes below this average.

Residential development located within municipal sanitary sewer service areas have differing costs, depending on the sanitary sewer user charge rates. The following table illustrates the four largest municipalities with sanitary sewer systems which represent the greatest concentration of residential development in La Crosse County, and their corresponding annualized sanitary sewer costs. These costs were based on the estimated 18,750 gallons of quarterly water use.

Table 1 - Residential Sanitary Sewer Municipal Charges

Municipality	Base Charge + Rate Per Quarter	Quarterly Water Est.	Estimated Cost Annually
City of La Crosse	\$13.50 + \$1.14/748 gal.	18,750 gallons	$(\$13.50 + \$28.57) \times 4 = \mathbf{\$168.28}$
Village of Holmen	\$15.50 + \$6.60/1000 gal.	18,750 gallons	$(\$15.50 + \$123.75) \times 4 = \mathbf{\$557.00}$
City of Onalaska	\$6.50 + \$2.53/748 gal.	18,750 gallons	$(\$6.50 + \$63.40) \times 4 = \mathbf{\$279.60}$
Village of West Salem	2.01/1,000 gal.	18,750 gallons	$\$37.68 \times 4 = \mathbf{\$150.72}$

Sources:

City of La Crosse: <http://www.cityoflacrosse.org/DocumentCenter/Home/View/2923>

Village of Holmen: http://www.holmenwi.com/index.asp?SEC=3A36BF28-73B1-4486-BA1E-B0FF55C3AA41&Type=B_LIST#D0B08F93-A369-4718-847D-66339B3592F7

City of Onalaska: http://www.cityofonalaska.com/index.asp?Type=B_BASIC&SEC={E8515B73-7FF6-4E32-BB8B-2536CCA1AF69}&DE={ACDBD1FA-44CF-41D1-8B4D-A284CFFB77E6}

Village of West Salem: <http://www.westsalemwi.com/pdf/ordinanceno447.pdf>

In more rural communities where sanitary sewer service is not provided, individual sanitary sewer systems are most commonly used. In order to truly compare annualized living costs, homeowners should understand these systems will eventually require replacement. If properly sited, designed, installed, and maintained, a system should last approximately 20 years. However, depending on use (quantity of water used, amount of oils and grease, chemicals or medications disposed in the system) failure of a private system may be more frequent. Costs associated with a private well and septic system for this analysis was amortized based on the total anticipated expenditure divided by the anticipated life of the system. For good practice, a home owner should be maintaining a reserve fund for the replacement of these systems as part of the ownership costs associated with a home with a private sanitary sewer system.

Two general types of septic systems exist, mound systems (in areas of higher groundwater table or silt/clay soils) and conventional septic systems. Specific design and soil testing is required on each site, even if the proposed system is replacing an existing failed system. In addition, in La Crosse County all septic systems must be pumped at a minimum of every three years to prevent failure. Costs associated with this are on average \$175.00 + \$15.00 County filing fee.

Estimated costs for soil sampling and septic system design: \$750.00 (necessary for replacement of an existing system, or a new system).

Estimated costs for new conventional septic system installation: \$9,000-\$10,000. This cost will be variable ultimately depending on the number of bedrooms in a home. Costs used in this analysis were based on a 3 bedroom home.

Estimated cost for new mound septic system: \$10,000-\$12,000, but could be as high as \$17,000 depending on site conditions and housing size.

In each township compared, low and a high values are calculated due to the potential for each type of system in each municipality.

Table 2 - Residential Sanitary Sewer System Annualized Cost Estimate

Item	Replacement Cost (avg.)	System Life Estimate	Annualized Cost
Conventional septic system	\$9,500.00	20	\$475.00
Mound septic system	\$11,000.00	20	\$550.00
Soil sampling/system design	\$750.00	N/A	\$37.50
Pumping Fee & county charge (3 years minimum)	\$175.00 + \$15.00	N/A	\$63.34

Private Well System versus Public Well System: Well installation is highly variable due to the topography differences in La Crosse County. Well drillers generally charge per foot of well depth drilled and thus private well systems in an area on top of a ridge or bluff will be more expensive than a well drilled in a coulee or river valley. These deeper wells typically are in rock formations that are open holes (no well casing), but require a greater diameter well drilled. Bedrock wells as described would typically have a longer life expectancy due to the bedrock characteristics compared to screen and filter-pak media used in unconsolidated aquifer wells. In addition, well pumps may go bad, which wouldn't require a new well to be drilled – but would be more expensive depending on the depth of well, as the pumps are generally submersible and would require the entire drop pipe removed during pump removal. A well pump's life expectancy is highly dependent on factors such as: overall use, water quality, total elevation difference between well and surface, etc. Private well systems life expectancy is highly variable, again based on overall use, water quality and the geology of the aquifer where the well is developed. Water quality issues such as iron/manganese, calcification or nitrate contamination could reduce the life expectancy of a well. Water filtration systems may be added to help treat some of these conditions, but will add extra costs to running a private well system. Electricity costs are variable with private well systems, and ultimately will be based on the total elevation distance the water must be lifted (higher

amperage pump). Well pumping electricity costs have not been considered in this cost review exercise. In each township compared, low and a high values are calculated for private well costs due to the potential for varying well depths in each municipality.

Table3 - Private Well System Annualized Cost Estimate

Item	Replacement Cost	System Life Estimate	Annualized Cost
Well Pump	\$1,000.00 - \$1,500.00	15 – 20 years (Avg. 17.5)	\$71.43
New Well (60’ - 110’)	\$4,200.00 - \$7,000.00	15 - 30 years (Avg. 22.5)	\$186.00 - \$311.11
New Well (300’ – 500’)	\$22,000.00 - \$25,000.00	30+ years (Avg. 40)	\$587.50

Public water supply systems provide water to users through underground piping infrastructure, elevated storage vessels (water tower), and municipal well or surface water collection. Most public water systems have a water utility that segregates costs of the municipal water system through the municipal water utility. One benefit of a municipal water utility is that every user (residential, commercial, manufacturing and non-profit) pays for their water based on total water used, not the value of their property.

Table 4 - Residential Water Utility Rates (5/8” meter)

Municipality	Base Charge + Rate Per Quarter	Quarterly Water Est.	Estimated Cost Annually
City of La Crosse	\$22.50 + \$1.02/748 gal.	18,750 gallons	$(\$22.50 + \$25.57) \times 4 = \mathbf{\$192.28}$
Village of Holmen	\$15.00 + \$1.88/1000 gal.	18,750 gallons	$(\$15.00 + \$35.25) \times 4 = \mathbf{\$201.00}$
City of Onalaska	\$14.25 + \$1.15/748 gal.	18,750 gallons	$(\$14.25 + \$28.82) \times 4 = \mathbf{\$172.28}$
Village of West Salem	\$9.27 + \$2.16/1,000 gal.	18,750 gallons	$(\$9.27 + \$40.50) \times 4 = \mathbf{\$199.08}$

Sources:

City of La Crosse: <http://www.cityoflacrosse.org/index.aspx?NID=482>

Village of Holmen: : http://www.holmenwi.com/index.asp?SEC=3A36BF28-73B1-4486-BA1E-B0FF55C3AA41&Type=B_LIST#D0B08F93-A369-4718-847D-66339B3592F7

City of Onalaska: http://www.cityofonalaska.com/index.asp?Type=B_BASIC&SEC={E8515B73-7FF6-4E32-BB8B-2536CCA1AF69}&DE={ACDBD1FA-44CF-41D1-8B4D-A284CFFB77E6}

Village of West Salem: Per request

Residential Storm Water Charges: Following the 2006 Wisconsin Department of Natural Resources (NR 216) regulations, urban municipalities in the La Crosse area were mandated to monitor and reduce storm water total suspended solids (TSS) by 40%. Urban municipalities such as La Crosse, Holmen, Onalaska, the Town of Onalaska and West Salem have enacted Storm Water Utilities to help cover additional costs associated with the increased infrastructure, operation and maintenance practices necessary to help meet these requirements. Through a storm water utility, municipalities spread these costs over all storm water generating properties, including non-profit entities, instead of having the costs covered solely through the property tax system. Properties generating storm water are charged based on Estimated Residential User (ERU) rates. An ERU is a municipal

calculated average square footage determined by each individual municipality based on average residential storm water runoff amounts. Municipal storm water utility rates are illustrated in Table 5 below:

Table 5 - Residential Storm Water Utility Charges

Municipality	ERU Rate	Annualized Charge
City of La Crosse	\$13.48/qtr	\$53.92/year
Town of Onalaska	\$1/acre + \$6/qtr	~\$25/year
Village of Holmen	\$11.50/qtr	\$46.00/year
City of Onalaska	\$14.87/ qtr	\$59.48/year
Village of West Salem	\$4.50/qtr	\$18.00/year

Garbage Collection Fees: Revenue generation for garbage/recycling is often an expense covered solely through the property tax bill. However, as more La Crosse County municipalities experience greater residential growth, user fees for residential services such as garbage/recycling have become an option to help offset this primarily residential service so other commercial or manufacturing taxpayers don't have to cover it through the municipal mill rate. Currently, of the municipalities we considered in this study, only the Village of Holmen charges for garbage/recycling collection through user fees. The Town of Onalaska does this through specific garbage bag sales (\$1.30/bag), as does the Town of Farmington (\$1/bag). The Village of Holmen attempts to covers these costs through a user fee included in the water/sewer/storm water/garbage quarterly billing. For this analysis, the Town of Farmington and the Town of Onalaska's garbage bag usage was determined as 1.5 bags weekly for 52 weeks multiplied by the bag charge. Holmen's residential garbage collection fee was based on the quarterly user fee multiplied times four.

Table 6 - Residential Garbage Collection Fees

Municipality	Rate	Annualized Charge
Town of Onalaska	\$1.30/bag	\$101.40/year
Village of Holmen	\$37.00/qtr	\$148.00/year
Town of Farmington	\$1.00/bag	\$78.00/year

Costs Not Considered: Homeowners Insurance Policy costs can contribute to location dependent residential cost variations since different municipalities usually have varying ISO ratings. A municipality's ISO fire rating helps insurance companies manage risk by scoring the municipalities fire fighting capacity. Municipalities with a higher rating (greater risk) will impact homeowners through a more expensive home owners policy. However, following numerous tries, many insurance providers required actual property addresses to verify distance to fire station, distance to hydrants, as well as age of home, building materials used, age of insurer, etc. Unfortunately, this specific of a comparison was not in the scope of this study, and would be hard to standardize due to the variation in age of housing, variation in the values & sizes of these homes, and potential replacement costs associated, among many other variables. Therefore, homeowner insurance policy costs were removed from consideration.

Transportation Costs: While transportation costs may significantly change the economic benefits of living outside of an urban area, it is hard to quantify these amounts, as the ultimate destination of the driver is not known. While the City of La Crosse experiences a significant increase in daytime population (34%) due to the commuting workforce, not all residents from the municipalities compared in this study travel solely into the City of La Crosse. Therefore, although provided below in Table 7 as a generalized annual cost for commuting, the numbers were not considered as part of the summary of total costs associated with each municipality. These costs however should be considered by homeowners deciding on where to reside, as they can make up a significant portion of living expenditures if someone lives outside of the community for which they work.

Table 7 - Commuting Cost Estimates

Distance to Work	Fuel Cost/Gal.	Vehicle Fuel Mileage					
		15	20	25	30	35	40
1 Mile	\$3.35/Gal.	\$111.67	\$83.75	\$67.00	\$55.83	\$47.85	\$41.87
5 Miles	\$3.35/Gal.	\$558.33	\$418.75	\$335.00	\$279.17	\$239.28	209.37
10 Miles	\$3.35/Gal.	\$1,116.67	\$837.50	\$670.00	\$558.33	\$478.57	\$418.75
15 Miles	\$3.35/Gal.	\$1,675.00	\$1,256.25	\$1,005.00	\$837.50	\$717.86	\$628.12
20 Miles	\$3.35/Gal.	\$2,233.33	\$1,675.00	\$1,340.00	\$1,116.67	\$957.14	\$837.50
25 Miles	\$3.35/Gal.	\$2,791.67	\$2,093.75	\$1,675.00	\$1,395.83	\$1,196.42	\$1,046.87

Estimate based on: **(Distance to work x 2) X (5 days/week x 50 weeks)** X Fuel Cost/Gal.
Vehicle Fuel Mileage

Annualized transportation costs (fuel costs only) are displayed in **BOLD**, line up distance to work with average vehicle mileage. This value only represents annual fuel costs for work-related commuting and does not include maintenance costs or vehicular insurance costs. These estimates assume one vehicle per household. If more than one vehicle is used in the household (two workers in household), then this calculation should be computed for each driver based on their trip distance to work.

If drivers consider the costs associated with car insurance, maintenance or any other vehicular expenses, this number would be considerably higher. The IRS mileage reimbursement rate for employees using their personal vehicles for employment attempts to cover these costs. Each year this number is calculated to address changes in fuel costs. Currently (Feb. 2014) the IRS mileage reimbursement rate is: **\$0.56/mile**

Table 8 - Commuting Cost Estimates Using IRS Mileage Reimbursement Rates

Distance to Work	Trip Distance (distance to work x 2)	IRS Mileage Reimbursement Rate	Monthly Cost (50 weeks/12 mo.)	Annual Cost
1 Mile	2 Miles	\$0.56	\$23.32	\$280.02
5 Miles	10 Miles	\$0.56	\$116.67	\$1,400.00
10 Miles	20 Miles	\$0.56	\$233.35	\$2,800.22
15 Miles	30 Miles	\$0.56	\$350.02	\$4,200.33
20 Miles	40 Miles	\$0.56	\$466.70	\$5,600.45
25 Miles	50 Miles	\$0.56	\$583.38	\$7,000.56


Source: <http://www.irs.gov/2014-Standard-Mileage-Rates-for-Business,-Medical-and-Moving-Announced>

Summary of findings: Appendix A includes the summary of charges for the La Crosse County municipalities considered. As indicated earlier, not every La Crosse County municipality was considered due to the number of potential differences between municipalities due to La Crosse County's seventeen (17) municipalities, six (6) school district boundaries, as well as varying boundaries of fire districts, sanitary districts and two (2) lake districts.

As illustrated in Appendix A, total residential living costs varied depending on location. The high value of \$11,950.58 was found in the City of La Crosse. The lowest value calculated of the municipalities considered was the Village of West Salem at \$10,305.25, a difference of \$1,645.32 annually. Monthly, this equates to approximately \$137.11.

Appendix B illustrates the variable portion of residential costs in La Crosse County municipalities. Mortgage costs were removed (as they were held constant in each comparison) to help illustrate differences more clearly.

Appendix A

Annual Costs For Living in the La Crosse Area								
March 2014								
Cost	City of La Crosse (LSD)	Town of Farmington High Est. (M-MSD)	Town of Farmington Low Est. (M-MSD)	Village of Holmen (HSD)	Town of Onalaska High Est. (HSD)	Town of Onalaska Low Est. (HSD)	City of Onalaska (OSD)	Village of West Salem (WSD)
Taxes ⁽²⁾	\$4,606.10	\$2,905.18	\$2,905.18	\$3,306.26	\$2,825.46	\$2,825.46	\$3,349.68	\$3,007.45
Sewer	\$168.28	\$650.84	\$575.84	\$557.00	\$650.84	\$575.84	\$279.60	\$150.72
Water ⁽³⁾	\$192.28	\$658.93	\$382.54	\$201.00	\$382.54	\$257.43	\$172.28	\$199.08
Estimated ERU Stormwater ⁽⁴⁾	\$53.92	\$0.00	\$0.00	\$46.00	\$25.00	\$25.00	\$59.48	\$18.00
Garbage/Recycling	\$0.00	\$78.00	\$78.00	\$148.00	\$101.40	\$101.40	\$0.00	\$0.00
Tax Rate	0.029909709	0.018864817	0.018864817	0.021469195	0.018347131	0.018347131	0.021751183	0.019528922
Annual Mortgage ⁽¹⁾	\$7,490.84	\$7,490.84	\$7,490.84	\$7,490.84	\$7,490.84	\$7,490.84	\$7,490.84	\$7,490.84
Homeowners Policy	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Transportation Costs	Variable	Variable	Variable	Variable	Variable	Variable	Variable	Variable
Total Annual Cost	\$12,511.41	\$11,783.79	\$11,432.40	\$11,749.09	\$11,476.07	\$11,275.96	\$11,351.88	\$10,866.09
Total Monthly Cost	\$1,042.62	\$981.98	\$952.70	\$979.09	\$956.34	\$939.66	\$945.99	\$905.51
Notes:								
Bolded Numbers - Estimate due to variable replacement costs based on well depth and type of sanitary sewer								
(1) Based on a 30 yr Mortgage at 4.5%, w/ 20% downpayment								
(2) Based on \$154,000 home -- \$154,000 * 2013 Tax Rate (http://www.co.la-crosse.wi.us/zoning/real/docs/MillRates2009-2013.pdf)								
(3) Based on 18,750 gal. average (http://psc.wi.gov/utilityInfo/maps/documents/waterStateMap.pdf)								
(4) ERU defined by individual municipalities								
Difference Between High and Low:			\$1,645.32 Per Year			\$137.11 Per Month		
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Appendix B

