## **Energy Tracking and Management: Woodbridge Year 2021**

Introduction: The following is a summary of the Woodbridge's Utility Data Assessment. All data collected is within the 2008-2021 and is compiled by the consultants with excel and inputted on Energy Star as well. Both data sets are provided. One the first excel sheet (Building Portfolio 2021), each building is organized by a 12-month total usage, monthly average, and percentage change is displayed for both electric and gas and provided a general view of the facility energy usage. Decrease usage from the prior year's usage is presented as a positive percentage, while an increase is presented as a negative value. The comparative trend lines are typical for a humid subtropical climate, showing high peaks in the mid to late summer and a substantial drop in October.

## Assessment:

While Woodbridge tracks all of its facilities including newly added buildings, the overall analysis tracks data collected from electric and gas utility bills from the following buildings in accordance with 2008 baseline:

- Town hall
- Community Center
- Pump Station
- Main Library
- Fords Branch Library
- Iselin Library
- Henry Inman Branch Library
- Health Center
- Barron Arts Center
- Evergreen Senior Center
- Sycamore Center

In 2021, the electric usage demonstrated typical usage similar to the prior year 2020, but saw a large drop from 2019 to 2020 largely thanks to covid. Some buildings saw limited usage or were closed to the public, while other operated normally. Overall, there has been a reduction of usage over the 5-year span, especially from the peak total in 2018 as the facilities and its occupants become more efficient

Similar to the electricity usage, gas usage has significantly decreased over the years. Additionally, the weather normalization below, via weatherdatadepot.com, demonstrates a milder winter by 9% and a hotter summer by 7%, which adjusts to 2% overall from the previous year.



## Monthly Degree Day Comparison (Weather Station: $\underline{\mathsf{WBRX}}$ )

	Base Year (2019)			Comparison Year (2020)			Comparisor	Comparison Percentages		
Month	HDD	CDD	TDD	HDD	CDD	TDD	HDD	CDD	TDD	
<u>January</u>	1021	0	1021	838	0	838	-17%		-17%	
<u>February</u>	805	0	805	742	0	742	-7%		-7%	
March	740	0	740	538	0	538	-27%		-27%	
April	296	15	311	453	0	453	53%		45%	
May	132	57	189	202	47	249	53%	-17%	31%	
June	10	208	218	8	262	270		25%	23%	
July	0	447	447	0	481	481		7%	7%	
August	0	325	325	0	381	381		17%	17%	
September	10	153	163	42	145	187		-5%	14%	
October	210	30	240	235	3	238	11%		0%	
November	681	0	681	421	1	422	-38%		-38%	
December	868	0	868	848	0	848	-2%		-2%	
Annual Total	4773	1235	6008	4327	1320	5647	-9%	7%	-6%	