


ANALYSIS OF NATURALLY OCCURRING AFFORDABLE HOUSING

A. INTRODUCTION

1. Purpose of Study

As the County tries to understand how the naturally occurring affordable housing units, mostly housing units with their total assessed values or monthly gross rents affordable to households earning at 80% of the AMI and below, are distributed throughout the County, RKG conducted this study to identify and document the naturally occurring affordable housing by tenure in the Prince William County. It should be noted that naturally occurring affordable housing in this study is identified using market-rate values and rent rates, and therefore is different from those “Affordable Housing” projects which are government assisted or subsidized. This study is valuable for identifying the clusters of naturally occurring affordable housing units as well as the lack of them geographically among the four housing submarkets, which helps the County to formulate targeted policies for each submarket to preserve and increase their affordable housing stock.

2. Methodology

The consultant identified the ownership homes (single-family detached homes, duplexes, and townhouses) in the County’s property assessment database and adjusted their 2020 total assessed values to 2021 levels using the inflation rate. Then the consultant compared the values of these ownership homes to the maximum home values that households at the five different AMI bands could afford using the HUD FY2021 income limits for the County. It should be noted that for ownership housing in this section, the HUD FY2021 income limits were used to compare to the adjusted 2021 assessed home values, while in the Housing Affordability Analysis section, the HUD FY2019 income limits were utilized to compare to the American Community Survey 2019 5-Year Estimates data. The purpose of this approach is to ensure that income levels and home values from the same year are compared against each other. The homes were then categorized as affordable to households earning 30% of AMI and below, 31% to 50% of AMI, 51% to 80% of AMI, 81% to 100% of AMI, or 101% of AMI and above in both the FHA lending and the conventional loan lending scenarios. For example, in the FHA lending scenario, the maximum home value that a household earning 30% of the AMI and below (\$34,850) could afford is \$147,151. The consultant then identified all the homes with a total value at or under \$147,151 and marked them as “30% of AMI and Below” in the FHA scenario. RKG then mapped these homes by the different AMI bands in ArcGIS.

On the rental side, as the property assessment database does not contain information on the monthly gross rents of rental units, RKG used the rental affordability gap analysis by submarket based on the American Community Survey (ACS) 2019 5-Year Estimates which is the latest available data to examine the geographic distribution of naturally occurring affordable rental units in the County. RKG also identified 17 multi-family apartment properties from the four submarkets in the property assessment data and gathered their most current monthly rent levels by bedroom type online as supplementary information. The main source used is Apartments.com and these properties' websites.

B. SUMMARY OF FINDINGS

- There is a Limited Supply of Ownership Homes Affordable to Households Earning Under 50% of AMI in the County
The majority of the ownership homes in the County are affordable to households earning 80% of the AMI (\$74,100) and above, with 76% and 54% of homes falling under this range in the FHA and conventional lending scenarios, respectively. In comparison, only 5.3% of homes in the FHA scenario and 18.9% of homes in the conventional lending scenario are affordable to households earning at 50% of AMI (\$58,050) and below in the entire County.
- There is a Geographic Disparity In the Distribution of Naturally Occurring Affordable Homes in the County
The Greater Manassas submarket has proportionally more homes affordable to households earning below 50% of AMI, with 14.7% and 40.4% of homes falling in this band in the FHA and conventional lending scenarios, respectively. This is followed by the I-95 Corridor submarket. However, the Northwest submarket has proportionally fewer naturally occurring affordable homes, with only 1.1% to 2.8% of homes falling in this range.
- There is a Shortage of Rental Units Affordable to Households Earning Under 50% of the AMI, with Supply-Demand Gaps Most Prominent in the I-95 Corridor and the Greater Manassas Submarkets
Only 24.3% of the rental units in the County are affordable to households earning at or below 50% of AMI (\$54,600), charging at or below \$1,365 per month. In addition, the supply of rental units affordable to households earning at or below 30% of AMI compared to the demand is the lowest in the I-95 Corridor, which means rental units in this price range can only meet 15.5% of the demand in this submarket. This is followed by the supply-demand ratio of 17.9% for rental units below 30% of AMI in the Greater Manassas submarket.
- RKG's Rent Survey Suggests that Households Earning at or Below 50% of the AMI Have Limited Affordable Rental Options
According to RKG's rent survey with 17 rental properties across the County, a two-bedroom unit charges \$2,025 monthly on average, which is only affordable to households earning above 80% of AMI. Households earning at or below 50% of AMI

may be limited to housing units in older properties sometimes with less desirable physical conditions as they could not afford other options without being cost-burdened.

C. NATURALLY OCCURRING AFFORDABLE HOUSING ANALYSIS

1. Naturally Occurring Affordable Ownership Homes

In both the FHA lending and conventional loan lending scenarios, the majority of the ownership homes in the County are affordable to households earning 80% of the AMI (\$74,100) and above, with 76% and 54% of homes falling under this range in the FHA and conventional lending scenarios, respectively. In comparison, only 5.3% of homes in the FHA scenario and 18.9% of homes in the conventional lending scenario are affordable to households earning at 50% of AMI (\$58,050) and below in the entire County. The Greater Manassas submarket has proportionally more homes affordable to households earning at or below 50% of AMI, with 14.7% and 40.4% of homes falling in this range in the FHA and conventional lending scenarios, respectively. This is followed by the I-95 Corridor submarket, with 6.2% of homes in the FHA scenario and 26.7% of homes in the conventional lending scenario affordable to households earning at 50% of AMI and below. In contrast, the Northwest submarket has proportionally fewer naturally occurring affordable homes for households earning at or below 50% of AMI, with only 1.1% (FHA scenario) to 2.8% (conventional lending scenario) of homes falling in this band (Table 4-1).

This finding resonates with those from the affordability gap analysis. The maps below illustrate how the ownership homes distribute geographically by different AMI ranges. As homebuyers usually choose FHA-backed mortgage loans for a lower percentage of down payments, the FHA lending scenario is more common, and therefore, home distribution by AMI in the FHA lending scenario is shown below (Map 4-1 to 4-4).

In both the FHA and conventional loan lending scenarios, there are generally fewer homes affordable to households earning at or below 30% of AMI (\$34,850), and they tend to cluster around the northern end of the Greater Manassas submarket, around the center of the Central PWC submarket along Highway 234, and in the south of the I-95 Corridor submarket along Route 1, just north to Quantico (Map 4-1).

There are stronger concentrations of naturally occurring homes affordable to households earning 31% (\$34,851) to 50% of AMI (\$58,050) on the northern tip of the Greater Manassas submarket, on the south side of the I-95 Corridor submarket along Route 1 near Quantico, in areas west to I-95 and east to Route 1 in the I-95 Corridor submarket, around the center of the Central PWC submarket west to Highway 234, as well as on the north side of the Northwest submarket (Map 4-2).

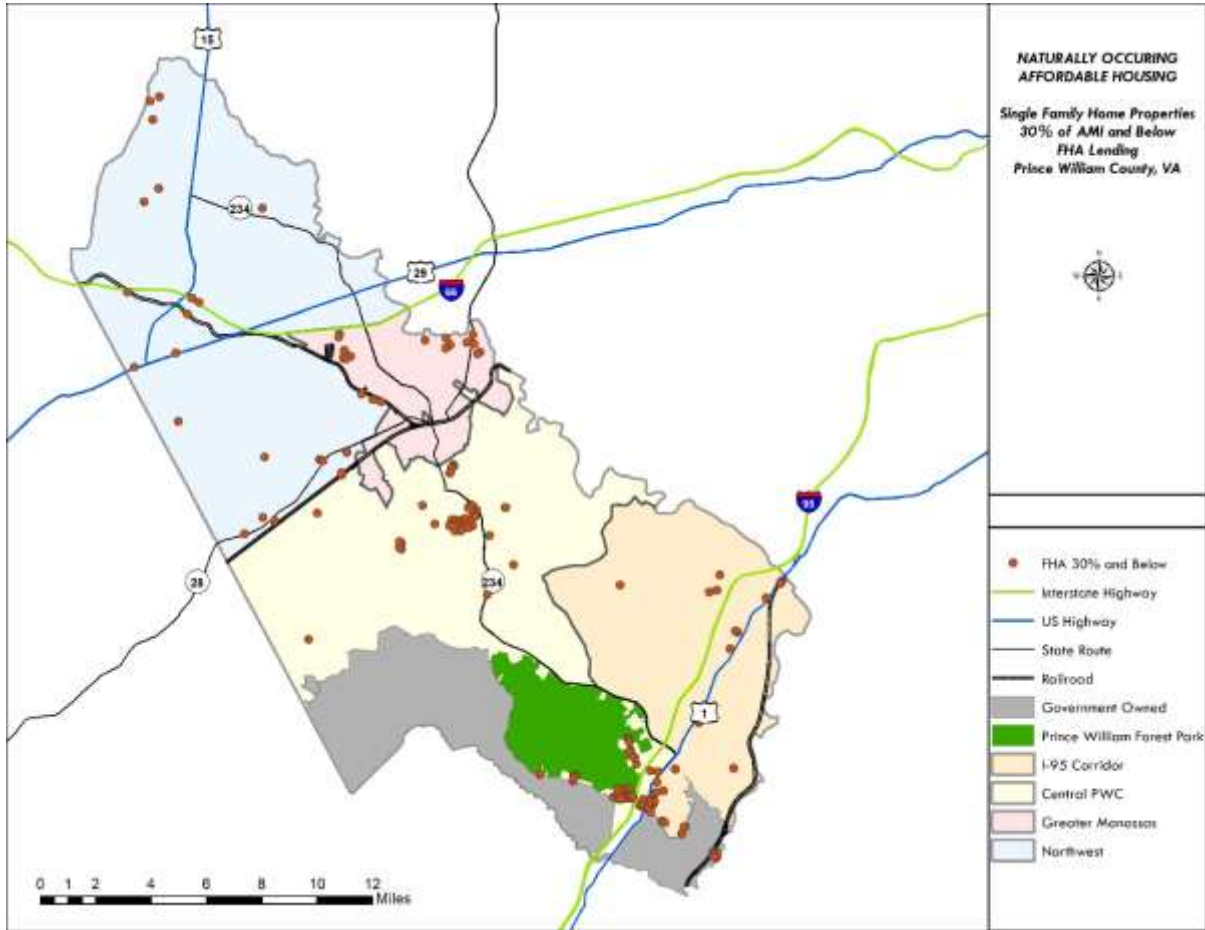
Table 4-1

**Affordability of Housing Units by HUD AMI Income Threshold, Property Assessment Records
 Prince William County (Excluding Quantico) and Submarkets, VA**

AMI Threshold	Upper Income Limit	FHA-Eligible Units			Conventional Loan-Eligible Units		
		Single Family			Single Family		
		Max. Home Value	Count	Percent	Max. Home Value	Count	Percent
County Total (Quantico Excluded)							
Total			119,830	100.0%		119,830	100.0%
30% of AMI (Extremely Low Income) and Below	\$34,850	\$147,151	220	0.2%	\$179,091	515	0.4%
31%-50% of AMI (Very Low Income)	\$58,050	\$245,111	6,111	5.1%	\$298,314	22,126	18.5%
51%-80% of AMI (Low Income)	\$74,100	\$312,880	22,780	19.0%	\$380,793	32,171	26.8%
81%-100% of AMI	\$116,100	\$490,221	56,765	47.4%	\$596,627	52,131	43.5%
101% of AMI and Above			33,954	28.3%		12,887	10.8%
Northwest Submarket							
Total			30,291	25.3%		30,291	25.3%
30% of AMI (Extremely Low Income) and Below	\$34,850	\$147,151	28	0.1%	\$179,091	75	0.2%
31%-50% of AMI (Very Low Income)	\$58,050	\$245,111	307	1.0%	\$298,314	781	2.6%
51%-80% of AMI (Low Income)	\$74,100	\$312,880	921	3.0%	\$380,793	4,204	13.9%
81%-100% of AMI	\$116,100	\$490,221	12,989	42.9%	\$596,627	18,422	60.8%
101% of AMI and Above			16,046	53.0%		6,809	22.5%
Greater Manassas Submarket							
Total			9,396	7.8%		9,396	7.8%
30% of AMI (Extremely Low Income) and Below	\$34,850	\$147,151	16	0.2%	\$179,091	44	0.5%
31%-50% of AMI (Very Low Income)	\$58,050	\$245,111	1,363	14.5%	\$298,314	3,748	39.9%
51%-80% of AMI (Low Income)	\$74,100	\$312,880	3,252	34.6%	\$380,793	4,265	45.4%
81%-100% of AMI	\$116,100	\$490,221	4,558	48.5%	\$596,627	1,261	13.4%
101% of AMI and Above			207	2.2%		78	0.8%
Central PWC Submarket							
Total			18,284	15.3%		18,284	15.3%
30% of AMI (Extremely Low Income) and Below	\$34,850	\$147,151	127	0.7%	\$179,091	261	1.4%
31%-50% of AMI (Very Low Income)	\$58,050	\$245,111	651	3.6%	\$298,314	1,232	6.7%
51%-80% of AMI (Low Income)	\$74,100	\$312,880	1,123	6.1%	\$380,793	3,125	17.1%
81%-100% of AMI	\$116,100	\$490,221	8,617	47.1%	\$596,627	10,550	57.7%
101% of AMI and Above			7,766	42.5%		3,116	17.0%
I-95 Corridor Submarket							
Total			61,859	51.6%		61,859	51.6%
30% of AMI (Extremely Low Income) and Below	\$34,850	\$147,151	49	0.1%	\$179,091	135	0.2%
31%-50% of AMI (Very Low Income)	\$58,050	\$245,111	3,790	6.1%	\$298,314	16,365	26.5%
51%-80% of AMI (Low Income)	\$74,100	\$312,880	17,484	28.3%	\$380,793	20,577	33.3%
81%-100% of AMI	\$116,100	\$490,221	30,601	49.5%	\$596,627	21,898	35.4%
101% of AMI and Above			9,935	16.1%		2,884	4.7%

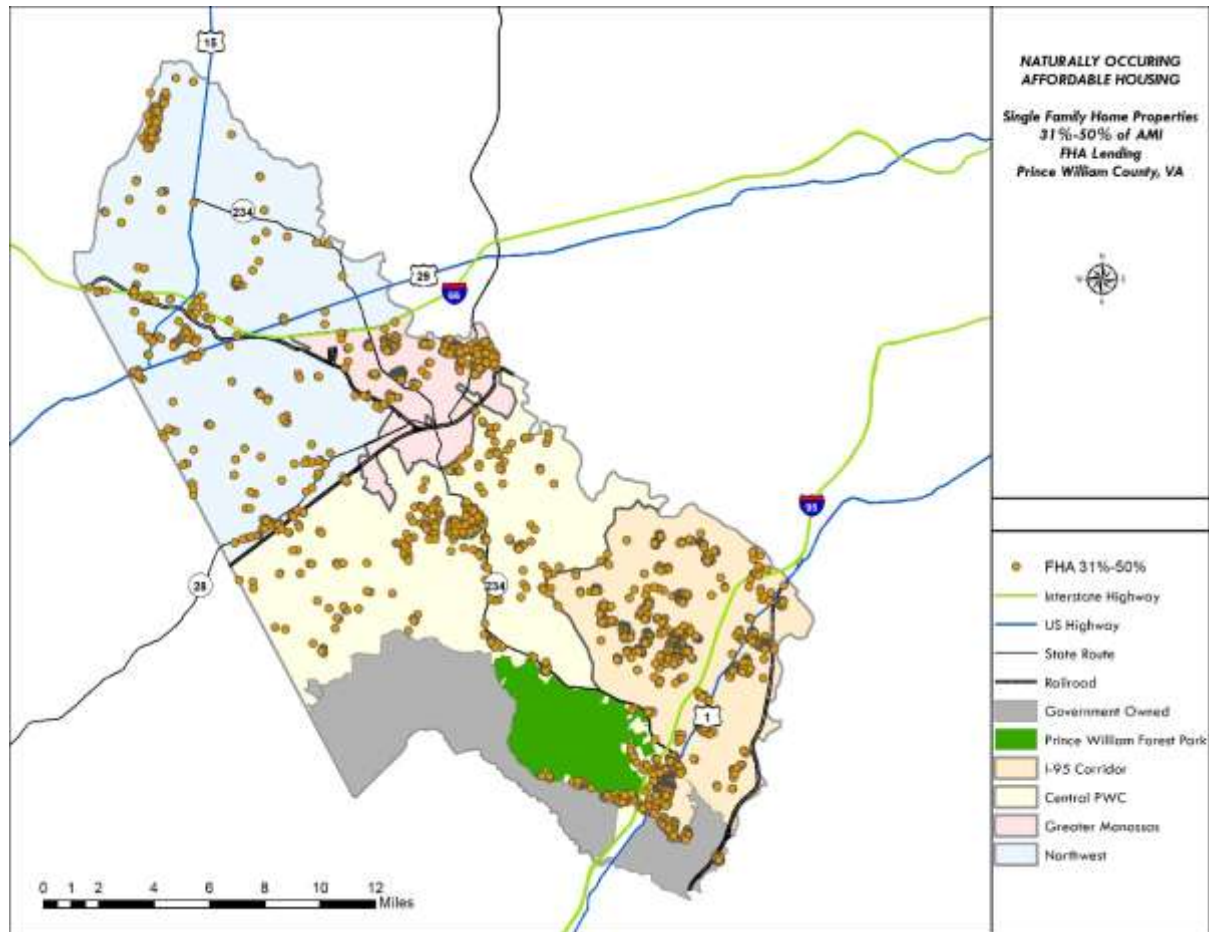
Source: HUD AMI 2021, Prince William County Property Assessment and RKG Associates, Inc., 2021

Map 4-1 - 30% AMI and Below (FHA Scenario)



Source: HUD, Prince William County Property Assessment, RKG Associates, Inc., 2021

Map 4-2 - 31% to 50% AMI (FHA Scenario)



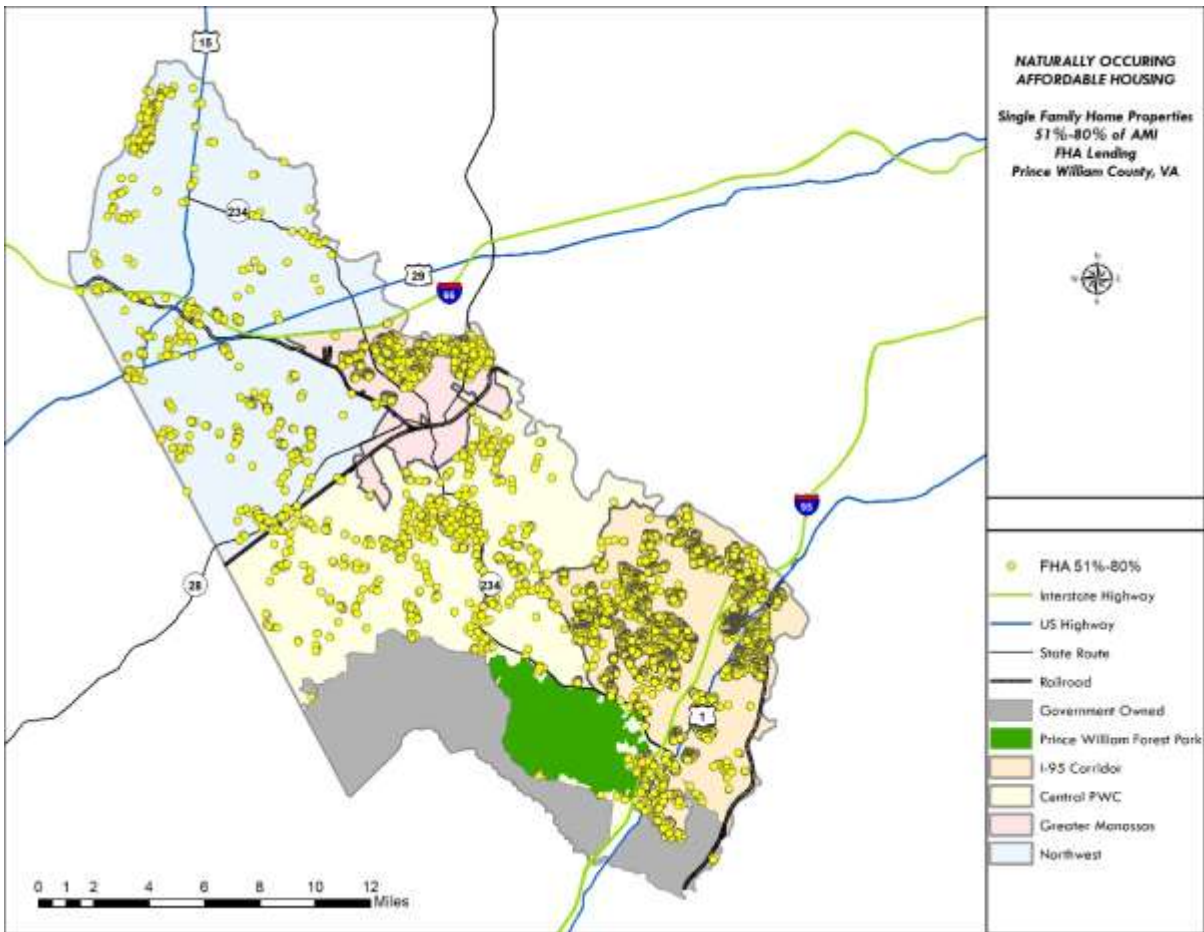
Source: HUD, Prince William County Property Assessment, RKG Associates, Inc., 2021

There are more apparent clusters of homes affordable to households earning 51% (\$58,051) to 80% of AMI (\$74,100) in the Greater Manassas submarket and the I-95 Corridor submarket in general, though there are also some homes that fall under this range in the other two submarkets (Map 4-3).

This suggests that naturally occurring affordable homes in the County are not evenly distributed among the four submarkets, and there are generally more affordable homes on the north side of the Greater Manassas submarket and in the I-95 Corridor submarket. In comparison, there are fewer homes affordable to households earning at or below 50% of AMI in the Northwest and the Central PWC submarkets.

However, though there are more naturally occurring affordable homes in the I-95 Corridor and the Greater Manassas submarkets, it should also be noted that the ownership housing supply-demand gap is also severe in the I-95 Corridor submarket as discussed in the previous sections, as well as in the Northwest and the Greater Manassas submarkets. The County should consider preserving naturally occurring affordable homes in these areas, especially those that are more likely to be bought out and converted into other uses, as well as increasing

Map 4-3 - 51% to 80% AMI (FHA Scenario)

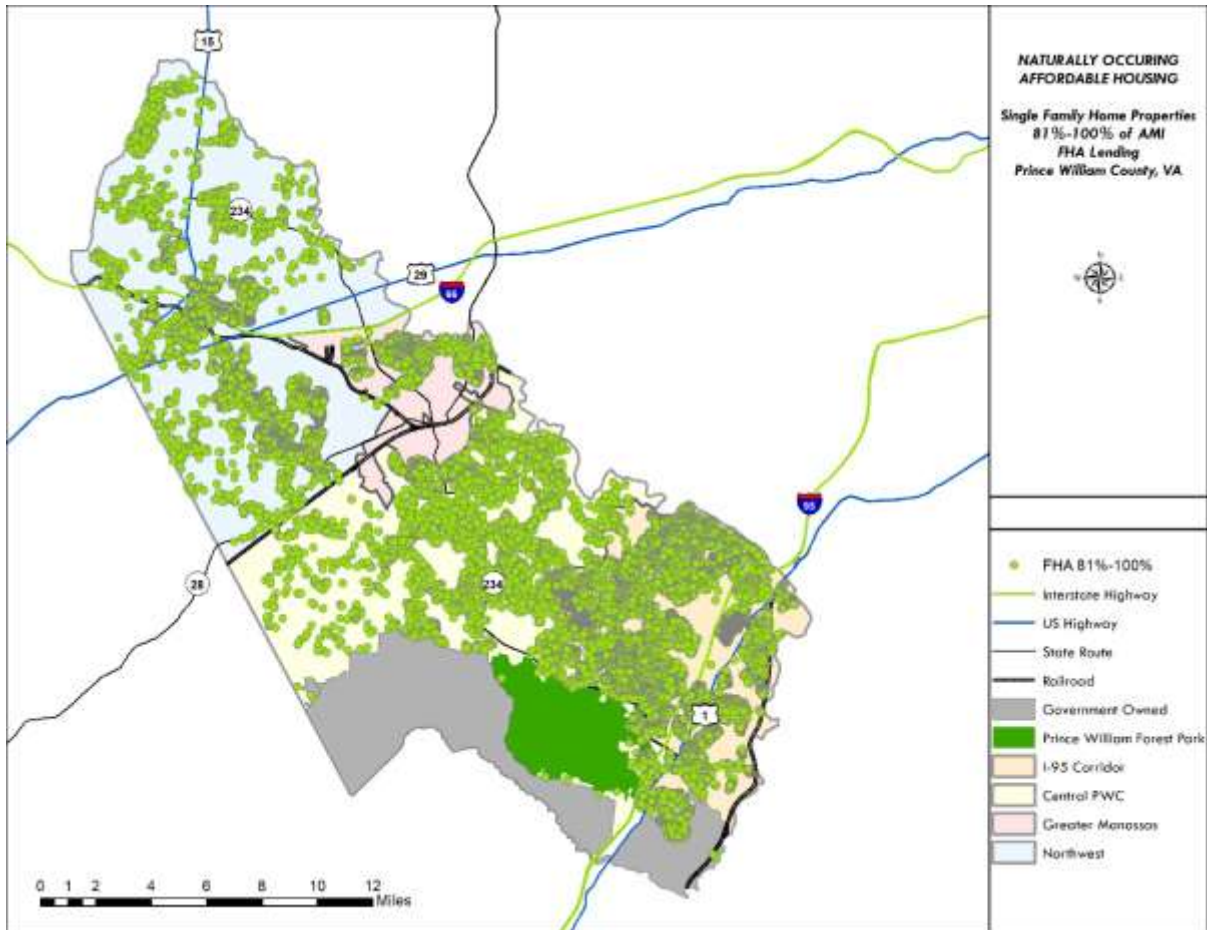


Source: HUD, Prince William County Property Assessment, RKG Associates, Inc., 2021

the supply to accommodate the unmet demand. The County could also identify homes with low assessed improvement values which are usually underdeveloped or older properties with poor physical conditions and consider redeveloping them into residential uses with higher densities to preserve and increase the affordable housing stock.

Once you get above the 80% AMI affordability level, into what many refer to as “workforce housing,” which extends to 120% AMI, we observe much greater housing availability. Map 4-4 illustrates just the bottom half of that range (80% to 100%). Housing units available to households making 100% AMI (\$116,100) increase to \$596,000+ on the for-sale market under the FHA financing scenario.

Map 4-4 81% - 100% of AMI, FHA



Source: HUD, Prince William County Property Assessment, RKG Associates, Inc., 2021

2. Naturally Occurring Affordable Rental Units

As discussed in the rental housing affordability gap analysis using the HUD FY2019 income limits, only 24.3% of the rental units in the County are affordable to households earning at or below 50% of AMI (\$54,600), charging at or below \$1,365 per month. Among these naturally occurring affordable rental units, 54.8% of them are in the I-95 Corridor submarket, followed by 38% in the Greater Manassas submarket. The Central PWC submarket only has 5% and the Northwest submarket has the fewest at 2.1% of rental units charging at or below \$1,365 per month. This resonates with the fact that there are proportionally more rental properties in the Greater Manassas and the I-95 Corridor submarkets.

Throughout the County, the supply of rental units affordable to households earning at or below 30% of AMI (\$32,800) is only 16.7% of the demand. While the I-95 Corridor and the Greater Manassas submarkets have more affordable rental units, there are also higher demands in these two areas. The supply of rental units affordable to households earning at or below 30% of AMI compared to the demand is the lowest in the I-95 Corridor, which means

rental units in this price range can only meet 15.5% of the demand in this submarket. This is followed by the supply-demand ratio of 17.9% for rental units below 30% of AMI in the Greater Manassas submarket. There are also larger numbers of rental units in shortage for the most vulnerable households (households earning at or below 30% of AMI) in the I-95 Corridor and the Greater Manassas submarkets in addition to their low supply-demand ratios. Therefore, the County should preserve and increase more affordable rental units in these two submarkets which also have proportionally more households with lower household income levels (Table 4-2).

Table 4-2
Rental Housing Supply (with Cash Rents) and Demand by HUD AMI Income Threshold, ACS 2019 5-Year Estimates
Prince William County (Excluding Quantico) and Submarkets, VA

AMI Threshold	Upper Income Limit	Max. Affordable Monthly Rent	Rental Supply (No. of Renter-Occupied Units with Cash Rents)		Rental Demand (No. of Renter Households)		Gap Count	Supply as a % of Demand
			Count	Percent	Count	Percent		
County Total (Quantico Excluded)								
Total			41,542	100.0%	42,656	100.0%	(1,114)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$820	1,595	3.8%	9,525	22.3%	(7,930)	16.7%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,365	8,491	20.4%	8,398	19.7%	93	101.1%
51%-80% of AMI (Low Income)	\$69,850	\$1,746	12,475	30.0%	5,211	12.2%	7,264	239.4%
81%-100% of AMI	\$109,200	\$2,730	16,562	39.9%	9,298	21.8%	7,264	178.1%
101%-120% of AMI	\$131,040	\$3,276	1,492	3.6%	3,245	7.6%	(1,753)	46.0%
121% of AMI and Above			927	2.2%	6,979	16.4%	(6,052)	13.3%
Northwest								
Total			3,706	100.0%	3,846	100.0%	(140)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$820	81	2.2%	414	10.8%	(333)	19.6%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,365	133	3.6%	467	12.1%	(334)	28.5%
51%-80% of AMI (Low Income)	\$69,850	\$1,746	709	19.1%	417	10.8%	292	169.9%
81%-100% of AMI	\$109,200	\$2,730	1,943	52.4%	947	24.6%	996	205.3%
101%-120% of AMI	\$131,040	\$3,276	490	13.2%	348	9.1%	142	140.7%
121% of AMI and Above			350	9.4%	1,253	32.6%	(903)	27.9%
Greater Manassas								
Total			14,096	100.0%	14,471	100.0%	(375)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$820	698	5.0%	3,910	27.0%	(3,212)	17.9%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,365	3,137	22.3%	3,340	23.1%	(203)	93.9%
51%-80% of AMI (Low Income)	\$69,850	\$1,746	5,081	36.0%	1,886	13.0%	3,195	269.4%
81%-100% of AMI	\$109,200	\$2,730	4,951	35.1%	2,830	19.6%	2,121	175.0%
101%-120% of AMI	\$131,040	\$3,276	88	0.6%	831	5.7%	(743)	10.6%
121% of AMI and Above			141	1.0%	1,674	11.6%	(1,533)	8.4%
Central PWC								
Total			1,688	100.0%	1,836	100.0%	(148)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$820	85	5.0%	481	26.2%	(396)	17.7%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,365	421	24.9%	190	10.4%	231	221.4%
51%-80% of AMI (Low Income)	\$69,850	\$1,746	248	14.7%	192	10.4%	56	129.5%
81%-100% of AMI	\$109,200	\$2,730	633	37.5%	451	24.6%	182	140.4%
101%-120% of AMI	\$131,040	\$3,276	205	12.1%	183	10.0%	22	111.7%
121% of AMI and Above			96	5.7%	339	18.5%	(243)	28.3%
I-95 Corridor								
Total			22,052	100.0%	22,503	100.0%	(451)	
30% of AMI (Extremely Low Income) and Below	\$32,800	\$820	731	3.3%	4,721	21.0%	(3,990)	15.5%
31%-50% of AMI (Very Low Income)	\$54,600	\$1,365	4,800	21.8%	4,400	19.6%	400	109.1%
51%-80% of AMI (Low Income)	\$69,850	\$1,746	6,437	29.2%	2,716	12.1%	3,721	237.0%
81%-100% of AMI	\$109,200	\$2,730	9,035	41.0%	5,070	22.5%	3,965	178.2%
101%-120% of AMI	\$131,040	\$3,276	709	3.2%	1,883	8.4%	(1,174)	37.7%
121% of AMI and Above			340	1.5%	3,713	16.5%	(3,373)	9.2%

Source: HUD AMI 2019, ACS 2019 Estimates, Prince William County Property Assessment and RKG Associates, Inc., 2021

As stated, the consultants also surveyed 17 multi-family apartments in the County and obtained their most current rent rates by bedroom type, with samples from each submarket. Across the 17 properties, one-bedroom units average \$1,727 monthly, two-bedroom units average \$2,025 per month, and three-bedroom units average \$2,602 monthly. These rent rates are affordable to households earning between 50% and 100% of the AMI. However, it should be noted that the household size of three is used in this study to represent renter households in the County. Therefore, a three-person household would need at least a two-bedroom unit, which charges \$2,025 monthly on average and is only affordable to households earning above 80% of AMI according to RKG’s rent survey. In addition, the survey reveals that old properties generally charge lower rents, which is not surprising. This suggests that households earning at or below 50% of AMI may be limited to housing units in older properties sometimes with less desirable physical conditions as they could not afford other options without being cost-burdened (Table 4-3).

Table 4-3
Monthly Rent of Surveyed Multi-Family Properties, 2021
Prince William County, VA

Total		Built Before 2000		Built 2000-2009		Built 2010-2020	
Type	Avg. Rent	Type	Avg. Rent	Type	Avg. Rent	Type	Avg. Rent
1b	\$1,727	1b	\$1,484	1b	\$1,945	1b	\$2,096
2b	\$2,025	2b	\$1,840	2b	\$2,020	2b	\$2,461
3b	\$2,602	3b	\$2,188	3b	\$2,453	3b	\$2,789

Source: Apartments.com, Property Sites, and RKG Associates, Inc., 2021

3. Residential Property Value Analysis

In order to identify areas within the County where housing rehabilitation or redevelopment of the existing affordable housing supply is necessary, the consultants conducted an assessed value analysis the County’s housing supply. Countywide building improvement value averages were calculated for single-family detached homes, single-family attached homes (duplexes and townhouses), condominiums, apartments, and other residential properties (including mobile homes, senior housing, and group quarters). Then the 2020 assessed improvement values per square foot of residential properties in the County were compared to these averages/SF by type, and a value-to-average ratio was calculated for each housing property.

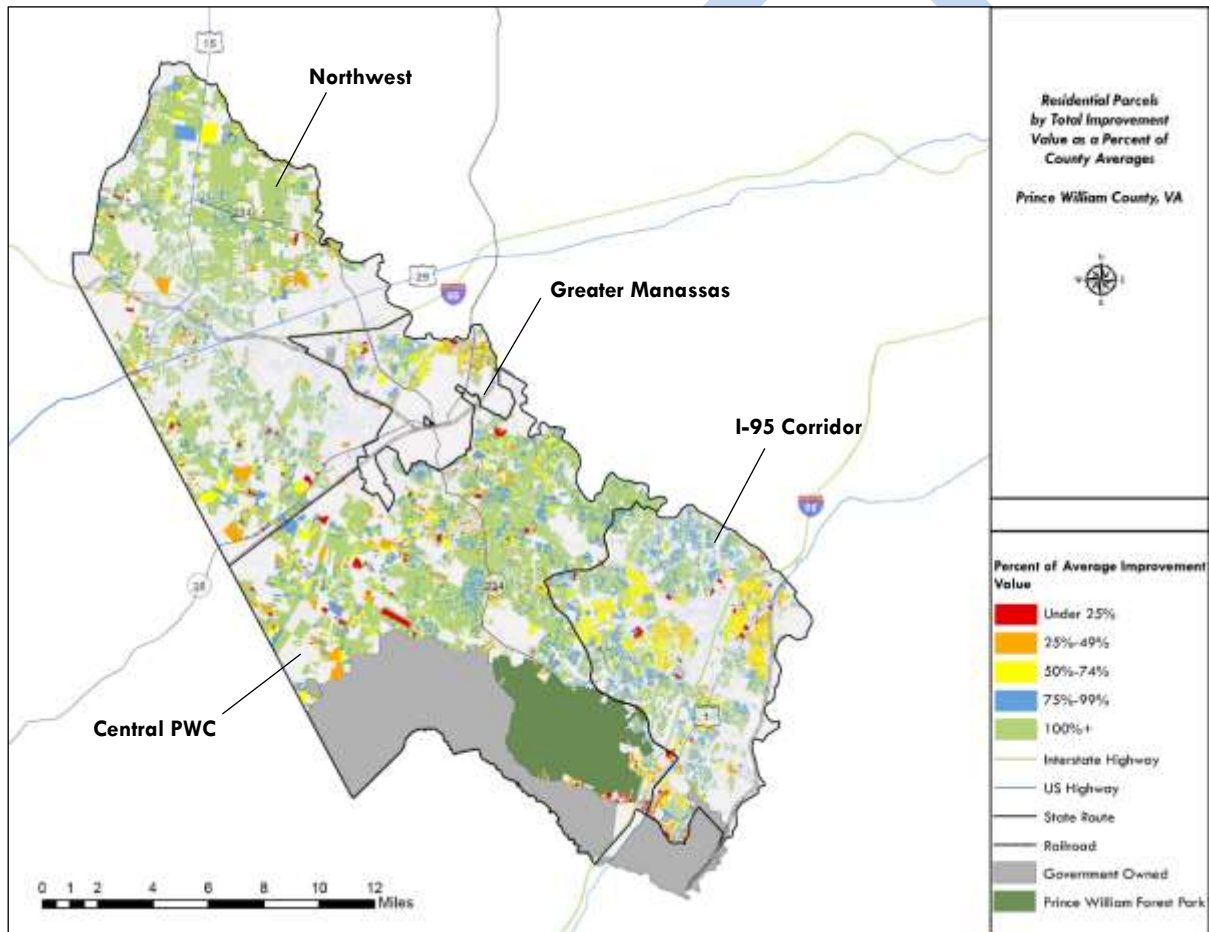
Residential properties with assessed improvement values per square foot under 50% of the County-wide averages typically have evidence of condition issues that are reflected in their lower assessed values. Only building values were used in this analysis and all values were converted to per square foot costs. Land values were removed to isolate the building values and all values were then converted to per square foot values to allow comparisons between large homes and small homes of different types. Because it would be unfair to compare average single family home values to mobile homes, each residential type was compared to the median value for its own residential type. Single-family detached homes were compared against the average value of all single-family homes in the county. The same was applied to townhomes, condominiums, and other housing types.

Based on the analysis, those housing units with building assessed values under 25% of the County averages, should be considered an immediate priority for housing rehabilitation or more comprehensive redevelopment activities. Overall, there are not that many properties that fall into that category, and virtually no large clusters. The biggest clusters of residential

properties under 75% of average assessed values per square foot are located in the I-95 submarket; mostly along either side of the U.S. Route 1 corridor, north of Dale and Rippon Boulevards. Residential values in the 51% to 75% range are typically older in age and may need renovations to prevent further decline but are not a large concern. Other clusters exist in the Manassas submarket along Route 28 in the City of Manassas Park, where there is a cluster of properties priced under 75% of average assessed value per square foot. Another loose cluster of properties valued under 50% are located north of Route 28 in Nokesville, but those properties are dispersed among a more rural setting.

The value-to-average ratios were then mapped in ArcGIS to show the geographic distribution of housing properties that may need redevelopment or preservation across Prince William County, and the result is shown in the following map (Map 4-5).

Map 4-5



Source: Prince William County Property Assessment, RKG Associates, Inc., 2021

In Prince William County, approximately 3.2% of the residential properties had building improvement values under 25% of the County median values. Roughly 5.4% are assessed between 25% and 49%. The Northwest submarket generally has a lower share of its housing with a value-to-average ratio under 50%. In comparison, the Central PWC submarket has proportionally more residential properties with value-to-average ratios under 25%, followed by the Greater Manassas submarket. The Greater Manassas submarket also has proportionally more housing stock with value-to-average ratios of 25% to 49% (Table 4-4).

**Table 4-4
 Residential Property Improvement Values Against County Averages
 Prince William County Submarkets, VA, 2020**

	Under 25%	25%-49%	50%-74%	75%-99%	100%+
Northwest	0.9%	1.9%	2.9%	11.6%	82.7%
Central PWC	4.8%	4.1%	10.6%	25.6%	54.9%
Greater Manassas	3.8%	11.2%	21.2%	35.3%	28.4%
I-95 Corridor	3.7%	5.8%	26.7%	30.6%	33.2%
Total	3.2%	5.4%	18.8%	26.3%	46.4%

Source: Prince William County Property Assessment Data and RKG Associates, Inc., 2021

