2013

Change in Location and Amount of Affordable Housing in Dakota County, Minnesota from 2006 to 2010

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Geography

Minnesota State University, Mankato
Mankato, Minnesota

April 12, 2013

Date:

This thesis paper has been examined and approved.

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ACKNOWLEDGEMENTS

I would like to acknowledge the committee members, Prof. Lopez and Prof. Schmid, for their time and effort in the completion and defense of this thesis which is greatly appreciated. I would especially like to thank Prof. Yuan for her professionalism and patience in helping me complete this thesis.

In addition to the committee members, I would also like to recognize my children and wife for helping me find time to complete a project that has been in the works for a very long time.

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Abstract

The purpose of this research study is to examine the location and amount of affordable housing in Dakota County, Minnesota for the years 2006 and 2010 and the changes occurring between these years. The analysis is segmented. The research utilizes parcel level data for owner-occupied units, and address-based data for rental units and manufactured housing units. This report uses findings to produce analyses, maps and spreadsheets detailing community-level, and county-level data associated with this research. The maps show all 34 communities in Dakota County and the corresponding location and amount of affordable housing in these communities for the time period 2006 and 2010.

The data associated with this analysis are a "snapshot" in time, with the accompanying data corresponding to these time periods. The results of this analysis show the total amount of affordable housing in Dakota County as well as the changes.

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1. INTRODUCTION

During 2006, housing prices nationwide achieved their highest level of value than ever before and housing became increasingly unaffordable to many households. This increase in housing value actually began in 1996, and by 2002, virtually every region in the country had entered into the "housing bubble", which was the increase in housing prices stimulated by the demand for owner-occupied housing and the confidence that the increase of housing prices would continue to rise in the future. Home values more than doubled in the Twin Cities between 1996 and 2006, but that was uneventful compared to places like San Diego, Las Vegas, and Miami, where housing prices more than tripled in value (Senf 2011). The housing market frenzy ended in early 2006 when prices began a steep decline. According to the Minneapolis Case-Shiller home price indices, the Twin Cities housing bubble peaked in 2006 and burst in 2010, with home values in the Twin Cities in 2012 comparable to levels a decade ago, down 50 percent from the peak five years ago (Standard and Poor/Case-Shiller 2012).

Based on this, an assumption could be made that housing would have been more affordable in 2010, when the housing bubble burst, than in 2006 when housing prices were at their highest level. But was this the case? The U.S. Department of Housing and Urban Development considers a housing unit affordable if the household spends 30 percent or less of their income on housing costs (mortgages and insurance for owner-occupied housing units, and rents for rental housing units). If the household spends 30 percent or more on housing cost, the housing unit is considered unaffordable, or also

called “housing cost burdened”, to the occupants of that unit. At the housing peak of 2006, 33 percent of owner-occupied households and 47 percent of rental households were spending 30 percent or more of their household income on housing costs (U.S. Census Bureau 2006). In 2010, these percentages had a modest drop in rates. Thirty-two percent of owner-occupied households and 45 percent of rental households spent 30 percent or more of their household income on housing costs (U.S. Census Bureau 2010). Based on the statistics using 2006 and 2010 U.S. Census Bureau’s American Community Survey (ACS) data would indicate that the differences between 2006 and 2010 were very similar in terms of housing affordability, with households paying roughly the same amount on housing in 2006 and 2010. The ACS is a self-reported survey whereby survey respondents fill out the survey themselves, filling in information related to housing costs and other categories. This can be problematic. For instance, owner-occupied survey respondents are asked how much they think their house is worth. This is basically guess-work on the survey respondent’s behalf, but the submitted response is used in the data collection and manipulation by the U.S. Census Bureau. An alternative to this data collection is to amass data involving housing costs on owner-occupied housing units, rental housing units, and manufactured housing units in manufactured housing parks using alternative data sources.

1.1 Statement of Problem

The primary question being asked in this research study is “did the amount and location of affordable housing change between 2006 to 2010”? The issue of affordable

housing has been around for many years now, yet it remains a hot topic for many people, especially researchers and experts in the housing field. Affordable housing is seen as the most common connection between household income and housing expenses (Kutty 2005). In fact, affordable housing decreases when the price of housing increases faster than household income. When this happens renters and homeowners end up paying a greater portion of their income to housing costs (Joint Center for Housing Studies of Harvard University 2005). In 2006, affordable housing was very hard to procure, due to historically high selling prices and the sheer volume of sales taking place. Many researchers and experts in the housing field were asking, "Where is affordable housing located?" This can be a difficult question to answer. During 2006, housing prices nationwide achieved their highest level of value than ever before and becoming increasingly unaffordable to many households. This increase in housing value actually began in 1996, and by 2002, virtually every region in the country had entered into the "housing bubble", which was the increase in housing prices stimulated by the demand for owner-occupied housing and the confidence that the increase of housing prices would continue to rise in the future. Home values more than doubled in the Twin Cities between 1996 and 2006, but that was uneventful compared to places like San Diego, Las Vegas, and Miami, where housing prices more than tripled in value (Senf 2011). The housing market frenzy ended in early 2006 when prices began a steep decline. According to the Minneapolis Case-Shiller home price indices, the Twin Cities housing market peaked in 2006 and bottomed out in 2010. Home values in the Twin Cities in 2012 are comparable to levels a decade ago, down 50 percent from the peak five years ago (Standard and

Poor/Case-Shiller 2012). It would seem logical that once the housing bubble burst, lower priced housing should be prevalent and more affordable to households.

1.2 Research Assumption

The assumption for this research is that the amount of affordable housing in Dakota County, Minnesota should be greater in 2010 than in 2006. As stated before, the housing market in the Twin Cities peaked in 2006 and bottomed out in 2010. Therefore there should be more affordable housing in 2010 compared to 2006 due to suppressed housing prices.

To examine this assumption, 2006 and 2010 American Community Survey data was utilized. In looking at the data, the median value for an owner-occupied house in Dakota County was $247,900 in 2006 and $243,700 in 2010.While this is a minimal decrease, it does represent a loss of housing value nonetheless. Using the U.S. Bureau of Labor Statistics' Consumer Price Index calculator to take into account for inflation, the $247,900 in 2006 would actually be $268,135 in 2010 dollars, which amounts to a difference of over $20,000.

In looking at median rent prices, the same data sources were used. In 2006, the median rent paid was $821 per month. In 2010, it was $891 per month. Using the U.S. Bureau of Labor Statistics' Consumer Price Index calculator, the 2006 rent level would be $ 882 per month, so the 2006 level and the 2010 are very close in value.

The assumption concerning manufactured housing, also called mobile homes, is that there will be roughly the same amount of affordable housing in 2006 compared to 2010. Manufactured homes are universally considered affordable and therefore should not change from year to year unless there is a depletion of the housing stock. Using the Metropolitan Council's annual Manufactured Housing Parks survey from 2006 and 2010, there was roughly the same amount of manufactured housing in 2006 and 2010, so the amount of affordable housing is about the same for these two years.

1.3 Affordability Background

The term "affordable housing" has more than one definition. For this thesis, the U.S. Department of Housing and Urban Development's standard is used, which associates family income thresholds to a scale of "affordable" housing costs, with families spending 30 percent or less of their income on these housing costs. Data compiled by the U.S. Department of Housing and Urban Development, regional median family income, and current mortgage eligibility guidelines and rental assistance guidelines are used in setting affordability criteria (U.S. Department of Housing and Urban Development 2006). Using this definition, an affordability threshold can be calculated for both 2006 and 2010 for any region in the United States. The price for new owner-occupied housing would be affordable to households at 80 percent of area median family income at the established home mortgage interest rates, with the occupants not paying more than 30 percent of their income on the housing. Units are considered ownership units if they have mortgages associated with them or are owned outright. This

description presumes that a family or non-family household making 80 percent of the region's median income can pay for housing expenses (mortgage payments, taxes, insurance and related housing costs) without spending more than 30 percent of their income on their housing. The median family income for the 7-county Twin Cities metropolitan area in 2006 was $78,500; 80 percent of median was $62,800. Since nearly all homeownership assistance programs are targeted to households at or below 80 percent of median income, this is the upper limit in determining if ownership units are considered affordable (Metropolitan Council 2006a). In 2010, the median family income for the 7-county metropolitan actually went up to $84,000; 80 percent of median was $64,400 (Metropolitan Council 2001).

Rental assistance programs and development are primarily meant to aid households at or below 50 percent of the regional median family income. Rental units were therefore considered affordable to households in the 7-county Twin Cities metropolitan area earning $39,250 in 2006. In 2010, 50 percent of the regional median income was $42,000 (Metropolitan Council 2011). These designations are consistent with the federal Low-Income Housing Tax Credit program's rent limits. Housing expenses for rental units consist of both monthly rents and utilities (Metropolitan Council 2006a).

Using these standards, the affordability threshold in 2006 was $201,800 for owner-occupied units, meaning that owner-occupied units that cost $201,800 or less are considered affordable (Metropolitan Council 2006a). For rental units in 2006, the affordability thresholds were: $687/month or less for an efficiency or single-room occupancy unit; $736/month or less for a one-bedroom unit; $883/month for a two-

bedroom unit; $996/month or less for a three bedroom unit or larger (Metropolitan Council 2006a). This means that any rental unit that has rents at or below these thresholds is considered affordable. Using the affordability standards for 2010, an owner-occupied housing unit was considered affordable if the price was $233,100 or less (Metropolitan Council 2011). For rental units in 2010, the affordability thresholds were: $735/month for an efficiency or single-room occupancy unit; $787/month for a one-bedroom unit; $945/month for a two-bedroom unit; $1,092/month for a three bedroom unit; $1,218 for a four-bedroom or larger unit (Metropolitan Council 2011).

1.4 Objectives

The researcher will explain where affordable housing was located by mapping the location of affordable housing in Dakota County, Minnesota for the year 2006 and 2010, and for the change between these years, using a variety of datasets including: MetroGIS Parcel Dataset, Dakota County's Rental Market Survey from the Dakota County Community Development Agency, GVA Marquette data (proprietary data), HousingLink affordable rental and owner data; Metropolitan Council affordable life-cycle housing threshold data, 2006 and 2010 American Community Survey data.

Determining the location and amount of affordable housing is not always easy. There are barriers in obtaining reliable and useable data sources. These could include incompatible datasets, mismatched methodologies, and numerous conflicting definitions related to affordable housing, and the cost of obtaining proprietary data and the reporting restrictions that accompany them. The researcher for this thesis gathered housing related

data from a variety of data sources without relying solely on Census related housing data. The basic premise of this technique is that Census related data is self-reported in that survey respondents are asked a question and then answer it to the best of their knowledge. For instance, owner-occupied survey respondents are asked how much they think their house is worth. This is basically guess-work on the survey respondent's behalf, but the submitted response is used in the data collection and manipulation by the Census Bureau. Moreover, the housing value breakdown and categories don't align with the affordable owner-occupied housing thresholds outlined before. For instance, the housing value data is consolidated in to the following groups: Less than $50,000; $50,000 to $99,999; $100,000 to $149,999; $150,000 to $199,999; $200,000 to $299,999; $300,000 to $499,999; $500,000 to $999,999; $1,000,000 or more. The same Census survey question is asked regarding rent prices. While the rental survey respondents probably have a better grasp on what their monthly rent is, the categorization and breakout of the data also doesn't align with the rental thresholds listed before. Therefore, the rents are difficult and awkward to manipulate for this study, much the same as the owner-occupied Census data. In addition, there isn't a way to differentiate the rental costs of a 1 bedroom rental unit versus the rental cost of a 2 bedroom rental unit. The published rents are all lumped together regardless of bedroom numbers. For the manufactured housing question on the Census survey, respondents are asked what type of structure they live in. Although "mobile home" is one of the options for this, other options include "RV" and "1-unit, detached" which could confuse the survey respondents into picking something other than "mobile home".

Using the MetroGIS Parcel dataset for Dakota County, the estimated market value from the 2006 and 2010 county parcel datasets will be used to find affordable owner-occupied housing. The state of Minnesota regulates that assessors must assess values to houses at a rate that is between 90 to 105 percent of a home's purchase price if it were for sale (Bjorhus and Webster 2008). This is a little better than the standard for the whole country, which is 90 to 110 percent. As stated before, parcels at or under $201,800 will be considered affordable in 2006 for this study, and for 2010, $233,100 will be the owner-occupied housing price threshold. These parcels must also have a structure on the property, so a housing unit is captured and not vacant land. To do this, the parcel must have a value of $100 or more in the building estimated market value field, and be homesteaded, or in other words, occupied. The spatial geography for this dataset will be at the parcel level.

Rents from 2006 and 2010 are from the Dakota County Community Development Agency (CDA), as well as GVA Marquette and HousingLink data. The rental parcels are address matched with MetroGIS's street centerline data using Arc 10 products. The spatial scale for the rental dataset will be addressed based in a community (geocoded). Some rental and owner-occupied data, as well as median household income data from the 2006 American Community Survey and 2010 Census are used as background information related to affordable housing in Dakota County. Affordable housing in manufactured housing parks is procured from the Metropolitan Council's Manufactured Home Parks dataset.

The spatial scale for this study will be the MCD (minor civil division) level. Various maps show the communities of Dakota County, with the housing data related to affordable owner units, affordable rental units, and manufactured housing units.

1.5 Location of the Study Area

The location of this research is Dakota County in the state of Minnesota. Dakota County is bordered by the confluence of two major rivers (the Mississippi and Minnesota) that form the county's northern and eastern borders (Dakota County Historical Society 2012). Dakota County is part of the 7-county Twin Cities metropolitan area (Figure 1.2) and consists of 34 communities (Figure 1.3). The communities in Dakota County include: Apple Valley, Burnsville, Castle Rock Township, Coates, Douglas Township, Eagan, Empire Township, Eureka Township, Farmington, Greenvale Township, Hampton, Hampton Township, Hastings (part of the city is in Washington County), Inver Grove Heights, Lakeville, Lilydale, Marshan Township, Mendota, Mendota Heights, Miesville, New Trier, Nininger Township, Northfield (part the of city is in Rice County also), Randolph, Randolph Township, Ravenna Township, Rosemount, Sciota Township, South St. Paul, Sunfish Lake, Vermillion, Vermillion Township, Waterford Township, and West St. Paul.

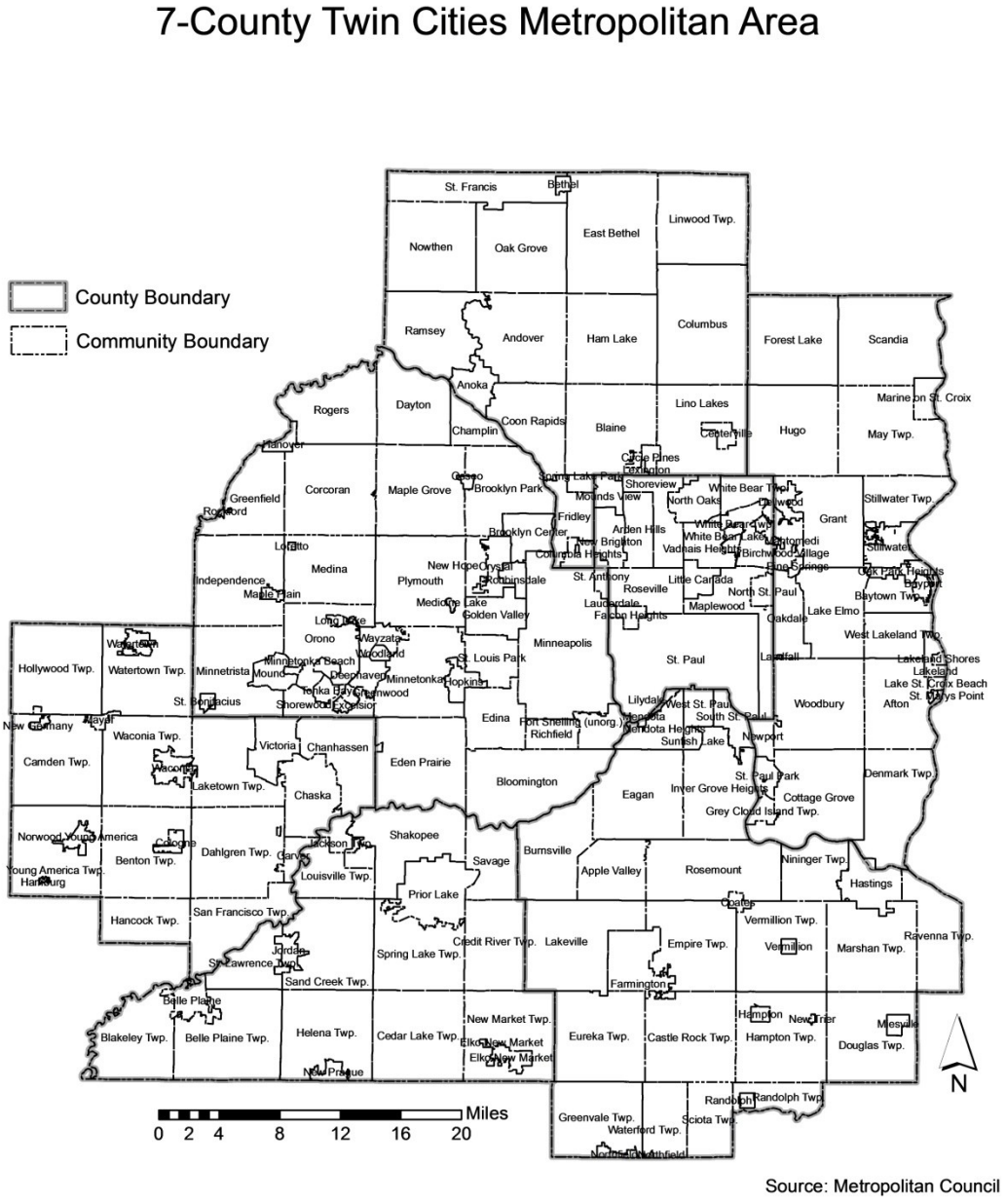


Figure 1.1: Map of the 7-County Twin Cities Metropolitan Area

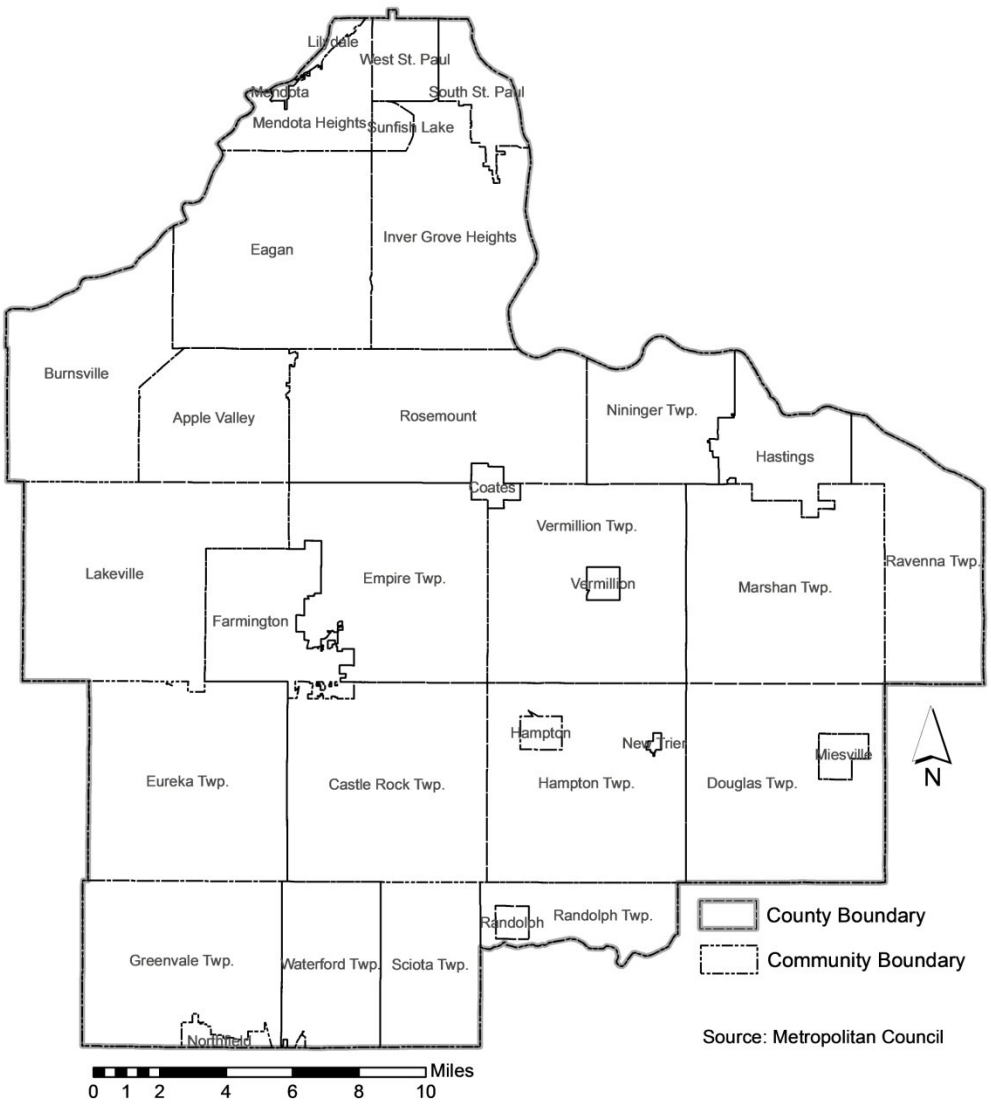


Figure 1.2: Map of Dakota County, Minnesota

1.6 Dakota County Background

As stated before, Dakota County is one of seven counties that comprise the Twin Cities Metropolitan Area. According to the 2010 Census, Dakota County had a population of nearly 398,552, which was a population increase of 10,551 from the 2006 American Community Survey population estimate of 388,001. In looking at Census related data, Dakota County had 153,617 housing units and 148,617 households (occupied housing units). In 2010, the number of housing units increased to 159,598 and households increased to 152,060. The median value for a owner-occupied home in Dakota County in 2006 was $247,900 (U.S Census Bureau 2006) and slightly decreased to $243,700 in 2010 (U.S Census Bureau 2010).

Dakota County is 593 square miles in area and is situated in the southeast corner of the Twin Cities Metropolitan area; it is the third most populous county in the state of Minnesota (Dakota County 2013). According to the Metropolitan Council's 2005 and 2010 Generalized Land Use data, almost half of Dakota County's 375,000 acres is agricultural, but over 6,000 agricultural acres were lost to development during the time period of 2005 to 2010 (Table 1.1). Undeveloped land also lost acreage during this time period, with almost 4,000 acres being lost to development. For housing acreage, single-family detached housing units made up the largest portion at 13 percent of the total in 2010, and gained over 1,700 acres of development since 2005 (Metropolitan Council 2010). Amazingly, parks and recreational or preserve acreage gained almost 6,500 acres in Dakota County from 2005 to 2010, which was much more than the overall change in all development land use types combined.

Dakota County, or "Dakotah County" as it was originally called, was established in 1849, and was one of the original nine counties created by the Minnesota Territory Legislature; the others being Benton, Itasca, Ramsey, Mahkahta, Pembina, Wabasha, Washington, and Wahnata. Dakota County was established prior to Minnesota being considered a state. Early in the 20th century, Dakota County was almost exclusively agricultural, but has become increasingly suburban over the past 60 years as its population exploded" (Dakota County 2013). "In 1950, 49,019 people called Dakota County home, 50 years later the population of the County was 355,904 and still growing. While population growth has occurred county-wide, much of the suburbanization has occurred in northern Dakota County, particularly in Eagan, Apple Valley, Rosemount, Lakeville, and Burnsville. The net result is that Dakota County has lost a tremendous amount of agricultural land to residential neighborhoods, shopping centers, and industrial parks" (Dakota County Historical Society 2012).

Dakota County		2005		2010	2005 to 2010
Land Use Type	Acres	Percent of Total Acres	Acres	Percent of Total Acres	Acreage Change
Agriculture	190,570	51%	184,438	49%	-6,132
Farmstead	3,950	1%	3,626	1%	-324
Seasonal/Vacation	9	<1%	8	<1%	-1
Single Family Detached	46,089	12%	47,805	13%	1,716
Single Family Attached	5,267	1%	5,865	2%	598
Multifamily	2,185	1%	2,262	1%	77
Manufactured Housing Park	778	0%	788	<1%	10
Retail and Other Commercial	4,228	1%	4,534	1%	306
Office	1,408	<1%	1,666	<1%	258
Mixed Use Residential	178	<1%	118	<1%	-60
Mixed Use Industrial	560	<1%	656	<1%	96
Mixed Use Commercial and Other	19	<1%	28	<1%	9
Industrial and Utility	7,676	2%	8,044	2%	368
Extractive	2,624	1%	2,594	1%	-30
Institutional	5,750	2%	6,166	2%	416
Park and Recreational or Preserve	20,142	5%	26,618	7%	6,476
Golf Course	3,360	1%	3,252	1%	-108
Major Highway	5,328	1%	5,385	1%	57
Railway	286	<1%	345	<1%	59
Airport	548	<1%	553	<1%	5
Undeveloped Land	61,386	16%	57,545	15%	-3,841
Open Water	12,851	3%	12,888	3%	37
Total Acres	**375,192**	**100%**	**375,184**	**100%**	**-8**

Sources: Metropolitan Council's Generalized Land Use, 2005 and 2010

Table 1.1: Land use acreage types in the 7-County Twin Cities Metropolitan Area, 2005 and 2010

2. LITERATURE REVIEW

2.1 Understanding Affordable Housing

The phrase "affordable housing" can have many meanings. As stated before, it is often recognized as the basic connection between household income and housing expenses (Kutty 2005). If housing is to be considered affordable, the expenditures (housing costs) relative to the household income must be reasonable or moderately reasonable. The most common definition utilized in describing affordable housing is that of the federal government, in which housing is deemed affordable if the household spends no more than 30 percent of its income on housing (U.S. Department of Housing and Urban Development 2006). In fact, the 2000 U.S. Census data showed that, nationally, one in five owners (mortgage costs) and two in five renters (rents) had to spend at least thirty percent of their household incomes on housing costs (Metropolitan Council 2005). Recent estimates indicate that households in the Twin Cities metropolitan area are facing similar problems. According to the American Housing Survey (U.S. Census Bureau 2010), one out of every four regional households, regardless of income, lives in a home that is not affordable to them. As a matter of fact, the need for affordable housing in the Twin Cities metropolitan area is so great that it has been forecasted that 51,000 new affordable housing units would need to be constructed between 2011 to 2020 to meet the demand for affordable housing in the future (Metropolitan Council 2006b).

There is a simple explanation as to how housing becomes unaffordable to various households. When the price of housing increases faster than household income, renters and homeowners end up paying a greater portion of their income on housing costs. In fact, the Joint Center for Housing Studies of Harvard University (2005) claims that over the years 2000-2004, housing value appreciation outpaced per capita income increases by more than four times in thirty-one metro areas, three to four times in nineteen metro areas, and two to three times in thirty-two metro areas.

Life-cycle housing is also very important. Households at various life-cycle stages tend to have different housing needs, yet changes in the family life-cycle distribution affect the housing needs of the population (Sweet 1990). Each life-cycle stage has a unique pattern of housing preferences and choices, related to differences in such things as size of household, economic resources, and life-style. Housing changes are often associated with family transitions, and in many cases, space requirements change as a result of family transitions. Family transitions are also associated with changes in life activities, which may affect the priority placed on various housing and location characteristics. For longtime residents of a certain area, the need for housing that meets the criteria of what is needed without leaving the community, as well as being affordable to the resident, could be of the highest priority.

2.2 Subsidized Affordable Housing

Subsidizing the construction of new affordable housing units or funding any housing activities through taxes can be very unpopular with many taxpayers.

Unsubsidized methods in producing affordable housing are usually the preferred method in meeting the need for more affordable housing. For many families and individuals though, the affordability of their home is dependent on this subsidization, whether it's through federal, state, or local subsidies. According to the 1949 Housing Act, Congress stated that as the resources pertaining to a variety of social programs shrink and the government's deficit gets bigger, unique examples of subsidization must be attempted (Sumka 1987). Although it might be unpopular, the subsidization of housing is important for retaining affordable housing. "From the depression of the 1930's well into the 1970's, public housing was the major federal initiative for housing lower-income families. Over 1.3 million public housing units were built nationwide" (Goetz 2011). In many cases throughout the U.S., even before the housing bubble began, rents increased very rapidly from the previous years. This made it very expensive for government agencies to subsidize the households renting these units. In 1997, Congress addressed the problem of affordable rental housing subsidies by enacting the Multifamily Assisted Housing Reform and Availability Act (MAHRA). It is also more commonly called the "market to market" legislation. This act preserves as much of the existing subsidized affordable rental housing as possible and brings the rents in line with local market housing costs. Most of this stock of affordable housing, though, was created between 1968 and 1988. Due to the age of these housing units, the upkeep and remodeling costs take up a large portion of the subsidized funds available (Smith 1999). In fact, studies done in the cities of Atlanta, Chicago, and San Antonio, showed those redevelopment subsidies often had lofty goals that were unobtainable (Salama 1999). Recently, many public housing authorities

(PHA's) "have pursued an aggressive strategy of downsizing the nation's public housing stock. This has been accomplished to date through a mix of demolition, redevelopment, and sale of public housing units in cities across the country" (Goetz 2011).

The largest government subsidy in providing affordable and low-income housing is the Low-Income Housing Tax Credit (LIHTC). The Low-Income Housing Tax Credit program started in 1987 and has helped finance almost 2.4 million affordable units nationwide since its inception. LIHTC subsidies are different than other forms of government subsidies in that it involves private investors using their private funds to finance and build government assisted affordable housing. The Low-Income Housing Tax Credit "allows investors to reduce their federal income taxes by $1 for every dollar of tax credit received. Investors receive the credit for 10 years, and the property must remain occupied by low-income households for at least 15 years" (Schwartz & Melendez, 2008). After the 15 years have expired, the investors are allowed to revert the affordable housing units into market-rate units, ending the affordable housing units tied to the Low-Income housing Tax Credit funding. So, housing units do not remain permanently affordable. Although the Low-Income Housing Tax Credit releases the funders after 15 years, it still creates affordable housing to those who would not receive affordable housing otherwise. Some of the Low-Income Housing Tax Credit funding is used in the rehabilitation of existing units, but a majority of these tax credit units are used in the creation of new construction. These developments are generally located in central cities or urban locations. Suburban developments make up approximately one-third of the total

units and the non-metro, or rural areas, comprise about one-sixth of the total units (Schwartz & Melendez, 2008).

Another form of subsidized rental housing is project-based housing. In project-based housing, the subsidy is tied into the housing unit. This differs from a tenant-based subsidy whereby the subsidy is tied to the tenant. If the tenant moves, so does the subsidy. Project-based housing assistance includes public housing and other forms of government assisted housing that are intended to provide affordable housing for families, the elderly, persons with disabilities, and homeless persons. In addition to public housing managed by PHAs, privately owned multi-family housing developments have received government assistance through programs that require units to be reserved for lower-income families or individuals.

Yet another form of subsidized rental housing option is called the Housing Choice Voucher program, which was previously called Section 8 Vouchers. These vouchers are a government-funded program that helps low-income households pay the rent on private, market-rate rental units. Unlike project based subsidies, where the subsidy is tied to the housing unit or complex, Housing Choice Vouchers subsidies are tied to the tenant and go where the tenant goes. A tenant receives a voucher from a Housing Authority and this voucher allows the renter to pay 30 percent to 40 percent of their household income on the rental price of a unit. The Housing Authority will then pay the rest directly to the property. If the tenant moves from this rental unit, the Housing Choice Voucher will go with the tenant to the next rental unit (HousingLink 2006).

Various approaches have been generated by federal, state, and local government agencies in regard to affordable housing subsidies. One of the more popular and successful strategies is inclusionary housing or inclusionary zoning. Inclusionary zoning is a well-known practice that promotes the production of lower-cost housing by setting aside a percentage of the total number of units in a development at below-market process in order to expand housing available to low and moderate-income households. Communities offer certain incentives to persuade a developer to comply with this zoning practice, Many inclusionary programs propose incentives or tools such as a density bonus, a reduction in the subdivision, parking, or setback requirements, or lower-cost financing (Sternlieb and Listoken 1987). For many communities, density bonuses are the most popular and effective tool in increasing the amount of affordable housing for low-income or senior households. This zoning ordinance permits "developers to increase the square footage or number of units allowed on a piece of property if they agree to restrict the rents or sales prices of a certain number of the units for low income or senior households. The additional cash flow from these bonus units offsets the reduced revenue from the affordable units" (Planning Implementation Tools 2005). In fact, "there is some evidence that inclusionary zoning programs that grant density bonuses and exempt smaller projects produce more affordable housing" (Schuetz et al. 2009). In the last 20 years or so, this form of zoning has become increasingly popular because it provides affordable housing without the need for direct public subsidies. Opponents to inclusionary zoning argue that it raises the costs of producing housing and reduces the amount of housing that can be produced. This approach not only meets the housing needs

of low-income residents, it also furthers "the geographic dispersal of the lower-income population". The standard objective in Inclusionary Zoning is "not only to increase the supply of affordable housing, but to do so in a manner that fosters greater economic and racial integration" (Calavita, Grimes & Mallach 1997). The practice of inclusionary housing has been utilized in many parts of the country, but is especially prevalent in California, New Jersey, Massachusetts, Oregon, and Florida. In the Twin Cities, The Metropolitan Council tracks the usage of inclusionary zoning, as well as other tools and incentives in providing affordable housing via a survey entitled "The Affordable Housing Production Survey". This survey has been in use since 1997 and it measures what communities use as tools and incentives in helping produce more affordable housing. Inclusionary zoning, however, has been used sparingly though throughout the Twin Cities, with this zoning practice being used twice in 2009 and four times in 2010 (Metropolitan Council 2010; Metropolitan Council 2011).

Federal, state, and local programs have so far been incapable of addressing affordable housing problems associated with insufficient government funding. In recent legislation, Congress expanded various tax credits and tax-exempt bond caps for affordable housing production and preservation. In response to this and to the shrinking supply of low-cost housing, state housing finance agencies have also intensified their utilization of tax incentives for preservation intentions. But these mainstays of state and federal policy have proven too modest to avert losses from the affordable housing stock. If recent tax reform proposals gain traction, they could put even these vital measures in jeopardy. Loss of these incentives would severely limit the ability of state and local

governments to stimulate and guide the production of affordable housing, as well as preserving low-cost housing in their communities (The Joint Center of Housing Studies of Harvard 2005). State and local governments primarily administer federal housing subsidies and tax incentives rather than contribute their own funds to programs intended to relieve affordability problems. The number of states and localities with housing trust funds, or some other form of dedicated housing assistance is growing. This is not only a response to the slow growth in federal assistance, but also a positive sign that states are beginning to add directly to the resources available for affordable housing (The Joint Center of Housing Studies of Harvard 2005).

2.3 Unsubsidized Methods to Produce Affordable Housing

As stated before, unsubsidized methods in producing affordable housing are the generally preferred method compared to methods that require subsidies. According to the authors of *Regional Approaches to Affordable Housing*, "unsubsidized housing is housing that is inexpensive enough to allow low-and moderate-income families to pay for it without spending a disproportionate share of their income. When this housing meets the existing needs within a region, the market has succeeded largely without governmental intervention" (Meek, Retzlaff, and Schwab, 2003).

Constructing attached housing yields greater housing density and diversity in housing, and communities that support life-cycle housing will have housing units, both rental and owner-occupied, that are affordable for low-and median-income buyers and for the move-up market. In particular, options beyond the predominant larger-lot, detached,

single-family home are preferred by many residents (Metropolitan Council 2005). By using higher density residential designs, which lower the cost by using less land, a buyer can afford more, as land prices usually constitute approximately one-third of the overall purchase price of a home. The proportion of attached housing types, which include townhomes, duplexes, triplexes, quads, and multi-family units, built in the Twin Cities metropolitan gradually increased from 1994 to 2004. In 1994, thirty-one percent of the residential units constructed were attached housing (townhomes, duplexes, condos, apartments) while sixty-one percent of the residential units constructed were single-family, detached units. In 2004, the data was reversed. Sixty-two percent of the residential units constructed were attached units, and thirty-eight percent were detached units (Metropolitan Council 2004). In recent years, the percentage of attached housing units has dropped a little, with 52 percent of all residential units build being attached in 2010 (Metropolitan Council 2011) and 54 percent in 2011 (Metropolitan Council 2012), but still far above what was produced prior to 2000.

Instituting cost saving land development and construction techniques can easily affect the outcome of affordable housing production. Some of these innovations would include: using 24-inch center framing as a replacement for 16-inch framing to reduce the required amount of lumber and labor; using less wood without structural strength; substituting plastic for metal in electrical boxes; using polybutylene water supply piping as an alternative to copper so there would be a lower cost for plumbing materials and insulation; and using wood foundations (Smith 1983).

Another construction technique that is gaining acceptance is manufactured homes. Manufactured housing units, or mobile home trailers as they are often called, offer an affordable housing alternative for many low- and moderate-income households. In fact, most experts in the housing field recognize mobile homes as being universally affordable. A manufactured home is often one-third to one-half as much as a site built home (University of Illinois at Urbana-Champaign 1995). This is due to the fact that manufactured homes use construction materials more efficiently, and construction workers can work inside during all seasons of the year. Traditionally, most manufactured homes are located in manufactured housing parks, or also called mobile home parks. Residents in these parks usually own the structure (mobile home), but rent the lot on which the unit sits. According to All Parks Alliance for Change (2007), in Minnesota there are approximately 180,000 residents that live in mobile home parks who meet the Housing and Urban Development guidelines for ownership housing, which is 80 percent low to very low income. Moreover, All Parks Alliance for Change claims that there are more affordable housing units in mobile home parks in Minnesota (48,700) than there are subsidized HUD housing units (36,000). Although manufactured housing is built to US Department of Housing and Urban Development standards, local communities and states often regulate placement, which can be a hindrance to affordable housing production. Beamish, et al. (2001), argue that manufactured homes are developing into a low-cost substitute to conventional stick built houses. They are also a major source of unsubsidized, low-cost housing, which accounted for a large share of housing nationwide, especially in the South (Genz 2001). Manufactured homes can play a major role in

supplying safe, affordable, and adequate single-family housing for limited-income potential homebuyers. Also, the frame of a manufactured home is built on a chassis so that the unit is transported on wheels rather than on a flatbed truck, which also saves on the overall cost to the homeowner. Prior to 1969, the Federal Housing Administration had been allowed to offer mortgage insurance on mobile homes and mobile home lots, and the enforcement of the HUD code allowed the stipulations of the loans to be increased, so that they are today comparable to conventional housing loans. Because their costs per square foot are about half those of the more traditional wood framed homes, manufactured homes put ownership within reach of millions of households at an affordable price (Genz 2001). Although HUD and the Manufactured Housing Institute have sought greater acceptance for manufactured housing in infill and suburban locations, it remains a rural choice for the most part. If stereotypes can be overcome, the development community could eventually help reinvent manufactured homes as quality, wealth-building, affordable housing.

2.4 Government Barriers to Affordable Housing

The ability of the government (federal, state, or local) to make housing more affordable is substantial and the governments' actions to manipulate many of the components of housing development such as land, financing, and capital improvements are also substantial. Often times, though, there are various barriers that impede the production of affordable housing. Some of these obstacles to affordable housing consist of exclusionary zoning (the opposite of Inclusionary Zoning), excessive site development

standards, building codes that are not kept up-to-date, and regulations that do not permit innovative financing techniques (Smith 1983).

The development or urban configurations can be a product of numerous dynamics, not the least of which is conventional planning and zoning procedures. Conventional planning and zoning practices usually force development farther out and over a larger region than would happen without them, frequently invading farm and forestlands prematurely (Peiser 1989). With this expanding development model, the lots for housing are usually large, with a small chance for the housing to be affordable. Zoning also is the local development regulation with the most influence on housing costs (Malpezzi 1996; Woodbridge 1995). Zoning ordinances create land and building specifications, such as minimum lot size, minimum square footage, setback requirements, and maximum density allowances. By identifying the land use and category of construction permitted, zoning determines the amount of land for new housing.

Impact fees are another source of adding price to housing. Impact fees, also known as development fees, are a way to shift the financial burden of new infrastructure onto the new residents. Impact fees are imposed on new construction because cities maintain that they are necessary to ensure that the user of the services or infrastructure pays for them. In fact, the desire to prevent low-income housing from being built in affluent suburbs is thought to be fiscal in nature. Low-income housing generates increased public service costs that surpass additional property tax revenues. This is where the impact or development fees come into play. Some of these development fees could

generate new housing opportunities for low-income households if there is a monetary enticement behind the adoption of land-use regulations (Burge and Ihlanfeldt 2006), but mostly they are seen as artificially escalating the price of housing (Bobo 2001). This would be true for single-family, detached housing and also for attached housing types. Evans-Cowley, et al. (2005) argue that the increasing popularity of the impact fees as a means to finance infrastructure probably seems more from pressing political and fiscal considerations than from pure public finance motives of equity and efficiency. With apparent high costs of rapid growth in residential development and voter unwillingness to sustain higher taxes, many cities are implementing development impact fees as a way of shifting the expense of improvements from existing residents to land owners, developers, or purchasers for new housing.

A form of government land use practice that can have an effect on land and housing prices is the urban growth boundaries. Portland, Oregon, for example, has an urban growth boundary around its metropolitan area. Outside of this boundary, construction is limited. Experts have argued that urban boundaries can have a negative effect on affordable housing production, where space is contained. Since land is limited, this drives up the price of the land. Some say that Portland's efforts to promote infill housing as well as prevent greenfield development have failed and that the housing prices have increased because of the demand for land (Fischel 2002). Defenders of the urban growth boundaries assert that they control urban sprawl and that the increases in home prices have resulted from higher levels of amenities produced by excellent planning, not from shortages of land for housing (Downs 2002). A thorough examination of home price

activities from 1980 to 2000 show that prices did not increase nearly as quickly in Portland as in many other regions in the 1980's. In fact, home prices increased faster in Portland only from 1990 to 1996, and that home prices in numerous other regions without urban growth boundaries were also increasing quickly (Nelson 2002).

The Twin Cities metropolitan area also has an urban boundary called the metropolitan urban service area (MUSA) boundary. While not as restrictive as Portland's boundary, it still limits residential growth. Various arguments exist as to whether an urban growth boundary for the Twin Cities increases the price for land development, therefore inhibiting the chances for producing affordable housing (Long 1996; Smyser 1996).

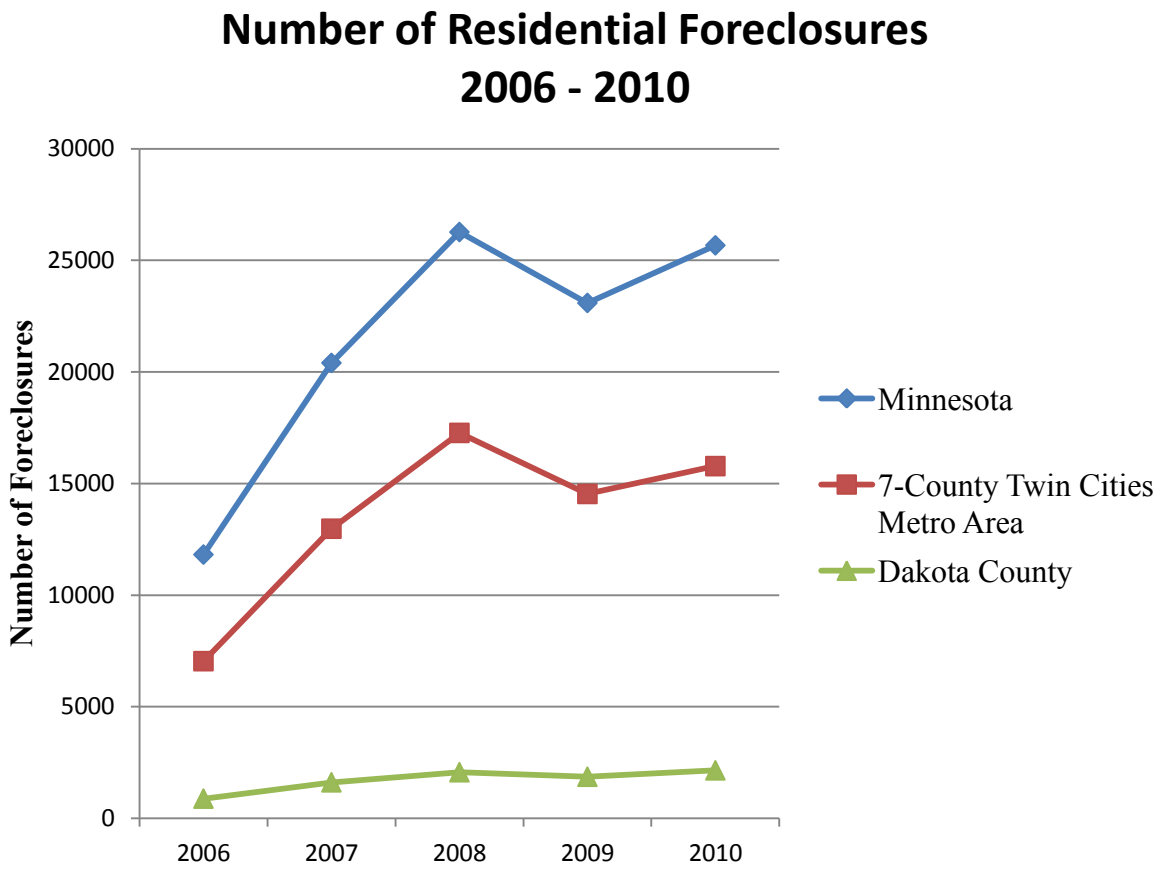
2.5 Foreclosure Crisis

During the 1990's**,** high risk lending practices were prevalent in the mortgage industry. These practices involved sub-prime lending and were increasingly used in the early 2000's, whereby homeowners and potential home-buyers were aggressively pursued to combine all of their debt into a home loan. These practices lead to an avalanche of defaults on home mortgage loans after the home-owners couldn't make their mortgage payments or became underwater, in which their home was worth much less than the mortgage due to falling home prices. According to an article entitled *Turning Everywhere, Getting Nowhere: Experience of Seeking Help for Mortgage Delinquency and their Implication for Foreclosure Prevention*, the authors studied how record numbers of foreclosures and mortgage defaults in 2006 nearly caused global markets to

crash. During this time, many homeowners looked for help in legally retaining their home by using modified loans and other ways. (Fields, Libman & Saegert, 2010). In a foreclosure forum at William Mitchell College of Law in St. Paul, Minnesota, many presenters initiated a discussion session related to the foreclosure crisis. In one session, a lawyer from the Center for American Progress presented data on what the real cost of foreclosure is in a community. According to the presenter, Alon Cohen, many states allow home-owners who are entering into default of their mortgage the chance to pursue foreclosure mediation. This mediation permits the home-owner to work with a foreclosure specialist and the bank to try and help people to stay in their homes. According to Mr. Cohen's research in the Twin Cities, mediation is 75 percent effective in getting residents to keep their homes. For the remaining 25 percent that are unfortunate enough to lose their home, there are often times options that lessen the blow of losing a home, such as "cash for keys", which gives the foreclosed party an option to shorten the foreclosure proceedings by receiving $3,000 for the keys to the housing unit. Also in his research, Mr. Cohen stated that it costs the mortgage company, almost always a bank, approximately $57,000 on average to foreclose on a home, and once a home is foreclosed on, it affects neighboring properties negatively by reducing their property values by about 5 percent (Cohen 2012).

In Dakota County, Minnesota, the overall number of foreclosures increased almost 2 ½ times from 2006 to 2010 (Figure 2.1). In 2006, Dakota County had 880 foreclosures (HousingLink 2009) which ranked as the 4th highest in the state. In 2010, this number increased to 2,147 foreclosures (HousingLink 2011), which was again

ranked as the 4th highest in the state (Minnesota has 87 counties). In terms of overall foreclosure numbers, more populous counties such as Hennepin and Ramsey always had the highest number of foreclosures. This makes sense since these two counties contain most of the housing units in the whole 7-county Twin Cities Metropolitan area.

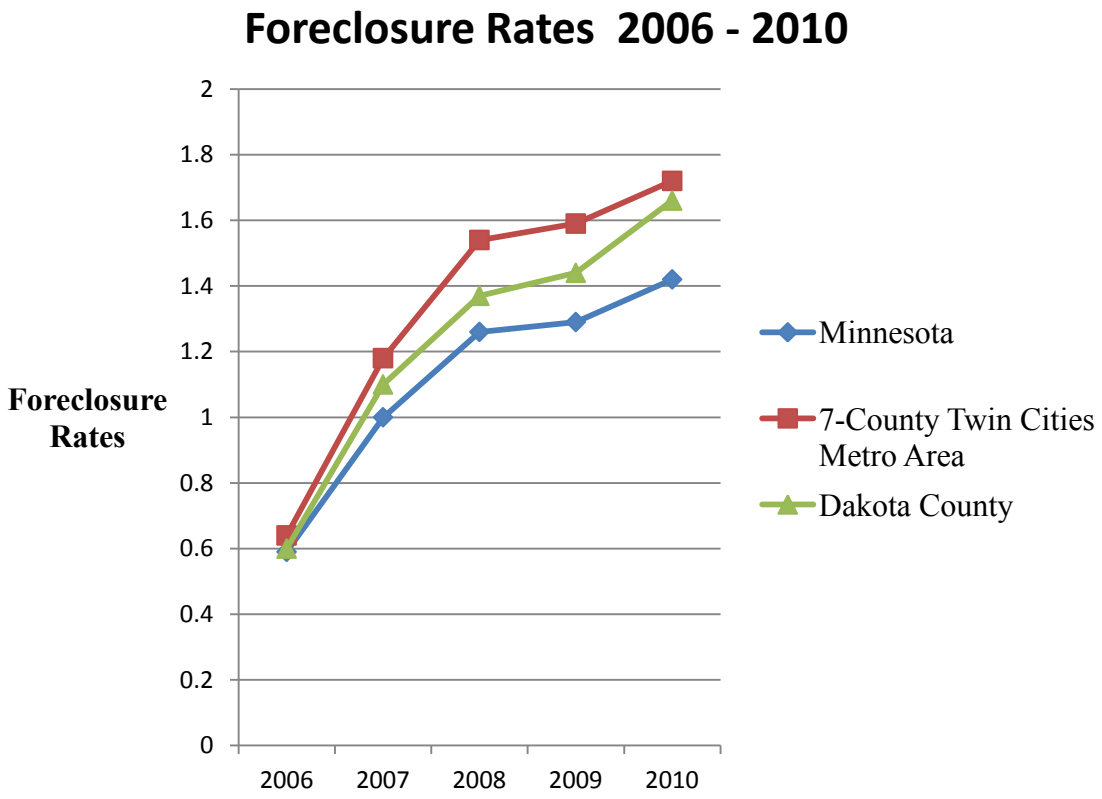


Source: HousingLink

Figure 2.1: Chart showing the number of residential foreclosures in Minnesota, Dakota Count, and the 7-County Twin Cities Metro Area for the years 2006 through 2010.

To evaluate the comparative impact of foreclosures on areas with different population sizes, a foreclosure rate can be utilized. The foreclosure rate is a mathematical equation that incorporated the number of sheriff's sales for every 100 households. This

would mean that if the foreclosure rate was 1.0, there would be 1 foreclosure for every 100 households in the county. Using this methodology, it's possible to have a better understanding of how prevalent foreclosures are. In 2006, Dakota County had a foreclosure rate of 0.6 (Figure 2.2), which ranked as the 27th highest in the state (HousingLink 2009). In 2010, the foreclosure rate for Dakota County climbed to 1.66, which was the 12th highest in the state (HousingLink 2011), which was quite an increase from the 27th place in 2006.



Source: HousingLink

Figure 2.2: Chart showing the rate of residential foreclosures in Minnesota, Dakota Count, and the 7-County Twin Cities Metro Area for the years 2006 through 2010.

2.6 Economy and Housing Prices

In 2006, the high cost of housing compared to wages in many areas of the country, particularly in metropolitan areas, was one of the main reasons for the dearth of affordable housing (Metropolitan Council 2000; Metropolitan Council 2002). Some housing experts surmised that, "the national average rose from house values 2.2 times the median family income in 1990 to 2.4 in 2000 to 3.2 times in 2007" (Lucy 2010). When this scenario happens, the supply of affordable housing stock becomes inadequate, as housing prices increase faster than family income. The stock of affordable housing dwindles even further in this situation as affluent households compete for housing and, as a result, are willing to pay more and the price for housing continues to increase (Jones, et al. 1995).

The U.S. Department of Housing and Urban Development considers a housing unit affordable if the household spends 30 percent or less of their income on housing costs (mortgages and insurance for owner-occupied housing units, and rents for rental housing units). If the household spends 30 percent or more on housing cost, the housing unit is considered unaffordable, or also called "housing cost burdened", to the occupants of that unit. At the housing peak of 2006, 33 percent of owner-occupied households and 47 percent of rental households were spending 30 percent or more of their household income on housing costs (U.S. Census Bureau 2006). In 2010, these percentages had a modest drop in rates. Thirty-two percent of owner-occupied households and 45 percent of

rental households spent 30 percent or more of their household income on housing costs (U.S. Census Bureau 2010).

In general, the outcome of housing markets should reflect essential market fundamentals. The closer the balance between housing supply and demand, and the more competitive the market, the lower the cost of housing (Landis, et al. 2002). For example, housing prices in high-tech markets are higher, perkier, and more unpredictable than in more traditional markets. However, this is due to higher income levels, higher rates of job growth, and lowered levels of housing production and only partially due to the industrial base itself. Also, metro areas with rigid development regulations generate less employment growth than anticipated given their industrial bases (The Joint Center of Housing Studies of Harvard 2005). While wages in these places increase somewhat more than in less regulated environments, housing costs can rise much more sharply.

Interest rates also have an obvious effect on affordable housing. After years of continual growth, the home buying market in 2006 was experiencing the sting of higher short-term interest rates. Up until 2004, diminishing mortgage interest rates helped to keep home ownership affordable even as prices soared. When interest rates were falling in 2000 to 2003, buyers who were capable of coming up with the additional down payment required could buy a typical home without pushing their monthly payments higher than what they would have paid at the start of the period. For buyers in fast appreciating markets, the distinction between buying in 2004 rather than 2003 was much more considerable, in terms of both the down payment and the monthly mortgage

payment (The Joint Center of Housing Studies of Harvard 2005). Mortgage interest rates rose up until 2005, but then began to fall again, but the barrier to purchasing a home was not in the mortgage interest rate but in the tightening of credit in purchasing a home.

3. METHODOLOGY

The methodology used for this research includes many different data sources, which are discussed in further detail in the Data Sources section, and incorporates GIS to aid in the representation of the data and to add visual effect to the findings. The findings are broken down into three categories: owner-occupied; rental; and manufactured housing units in manufactured housing parks. The findings for each of the categories listed are presented in formats with data containing the years 2006, 2010, and the change between these two years.

The corresponding data for this report are presented with the help of tables and maps. These maps and spreadsheet show: increase or decrease in the number of affordable housing units; percentage of overall increase or decrease of affordable housing units; percentage point increase or decrease in the number of affordable housing units. An example of these different types can be described by looking at an individual community. Apple Valley, for example, had 2,573 affordable owner-occupied housing units in 2006 and 7,984 affordable owner-occupied housing units in 2010. This would be an increase of 5,411 affordable owner-occupied housing units between 2006 and 2010. The percent change between these years would be an increase of 210.3 percent. The percentage point change is described as the change in a community's affordability from one year to the next. Using Apple Valley as an example again, 19.9 percent of their owner-occupied housing stock was considered affordable in 2006. In 2010, 59.9 percent of their owner-

occupied housing stock was considered affordable, so the percentage point change between the time period of 2006 and 2010 was a 40.6 percent increase.

3.1 Owner-Occupied Housing Data Sources

This study looks at owner-occupied housing units, which are considered a homesteaded unit. A homestead unit is a housing unit that is occupied by the owner, and is considered the owner's main place of residence (Dakota County 2006). This homesteaded unit must have a structure on the property also. A non-homestead housing unit is a parcel that has a housing structure on the parcel, but it is not the primary residence of the owner. Since the tenure (if it is a renter or an owner) of the resident is not known for many non-homesteaded units, they are not included in the owner-occupied category.

According to the 2006 American Community Survey (ACS), Dakota County had 79.6 percent of the housing as owner-occupied. In 2010, this percent changed to 76.5 percent. As stated before, the median value for an owner-occupied housing unit in 2006 was $247,900 in Dakota County and $243,700 in 2010 according to ACS information, so the value change between these 2 years is quite small. Also, as stated before, Census related data is self-reported data in that the respondents are asked certain questions and they answer based on their best judgment. The Dakota County Assessor's office offers a better solution. This governmental department uses trained assessors in determining the estimated worth of property for tax purposes. This estimated worth, or estimated market

value, is compiled annually and is available through MetroGIS, which is a GIS data consortium or data warehouse that distributes geographic data.

Since the number and location of affordable units is desired for this research, a query was used to calculate the number of affordable homestead units. This query included filtering out all of the non-homestead units and selecting those units that had an estimated market value of $201,800 or less in 2006 and had a building on the property. For the 2010 data query, an estimated market value of $233,100 for a homesteaded unit with a building on the property. These three parts of the query are important. First, as stated above, finding the homesteaded units can help in understanding how many of the housing units are occupied residential units as opposed to non-residential units. Secondly, there is a need to find the number of affordable housing units (units that at are estimated at $201,800 or less in 2006, and $233,100 or less in 2010) using the estimated market value attribute in the parcel dataset. Thirdly, the parcel has to have a structure on it, so a building value ($100 or more) must accompany the parcel. It can't be vacant land. Figures 3.1 and 3.2 show the results of this query for 2006 and 2010.

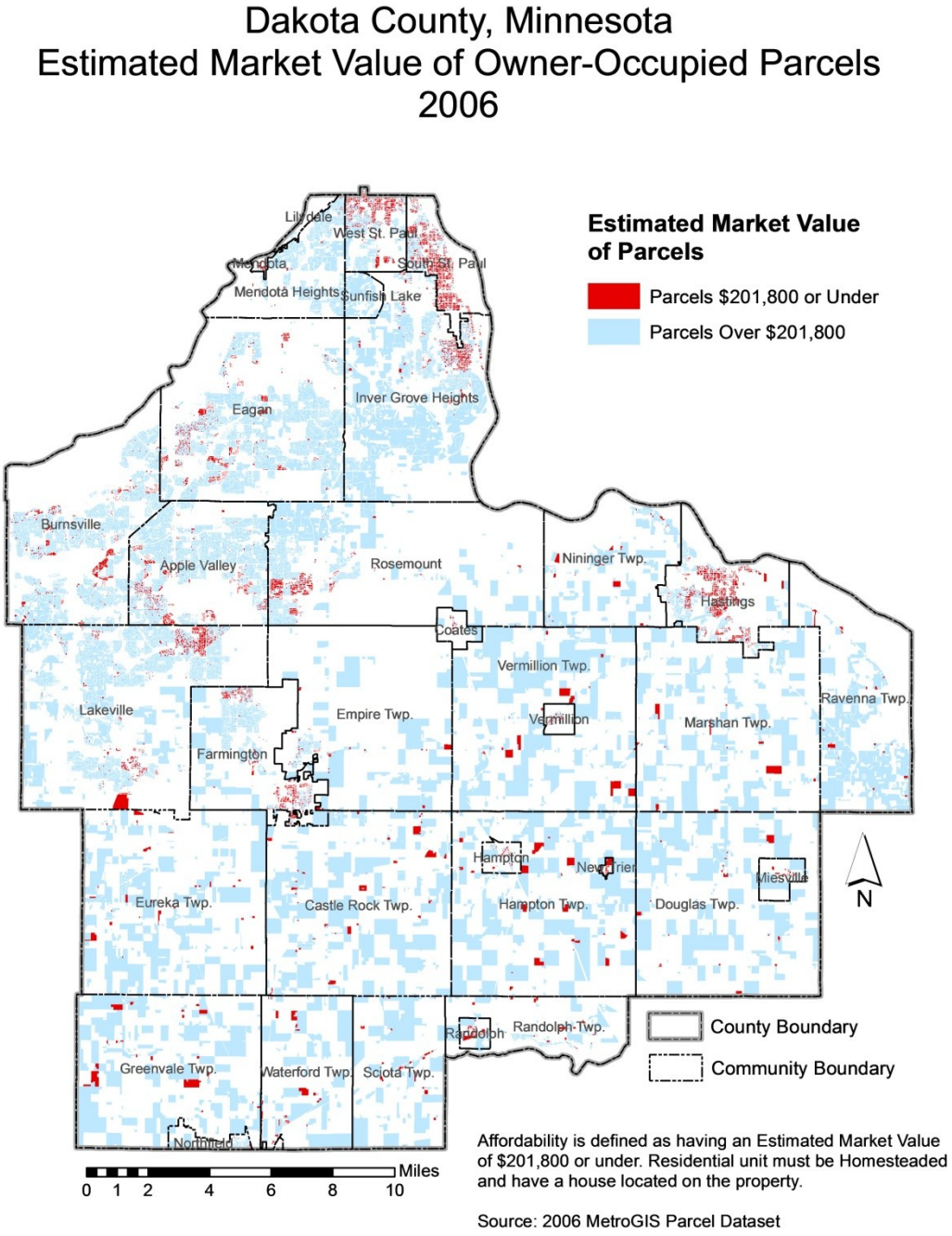


Figure 3.1: Location of affordable owner-occupied parcels in Dakota County, 2006

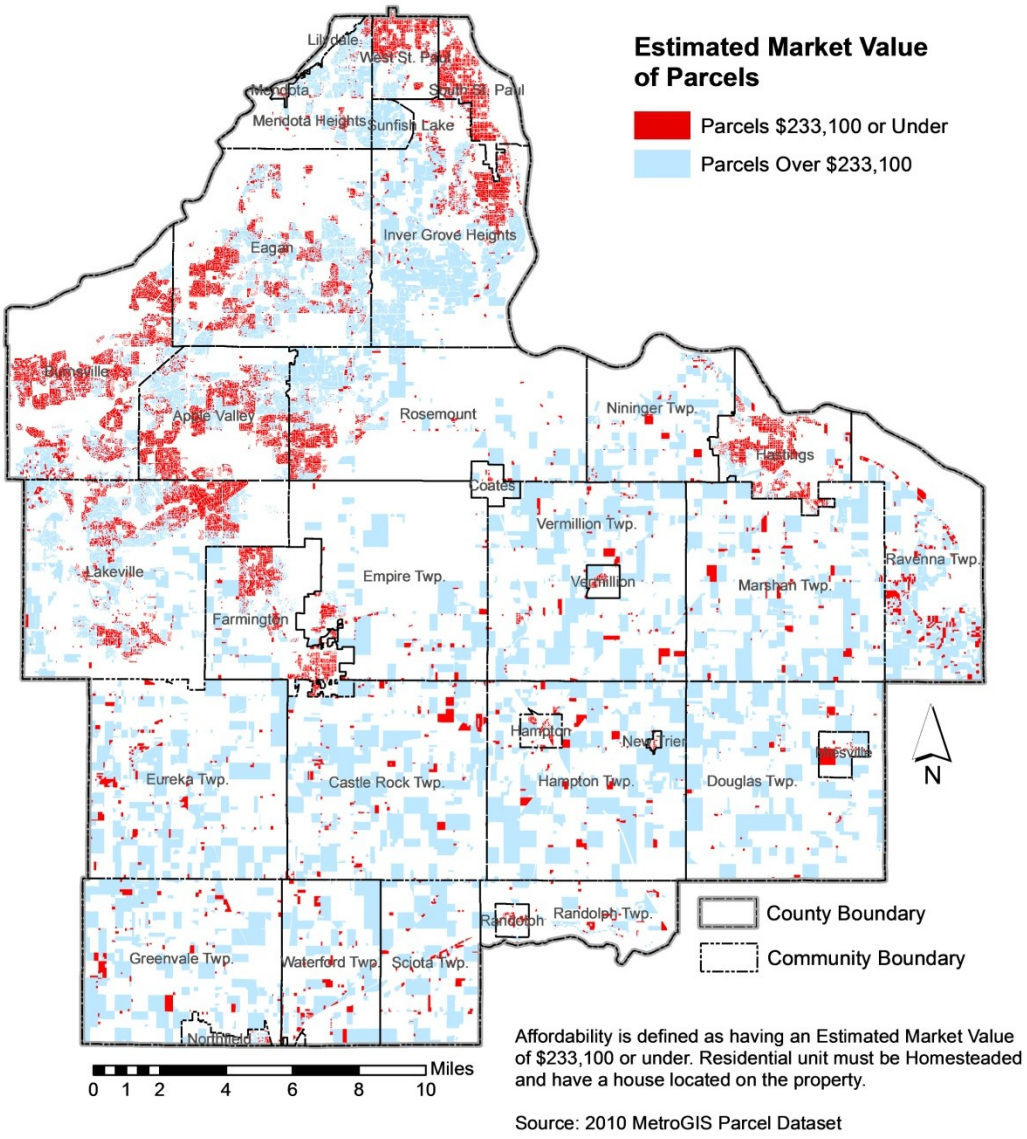


Figure 3.2: Location of affordable owner-occupied parcels in Dakota County, 2010

3.2 Rental Units Data Sources

For locating rental units in Dakota County in 2006 and 2010, multiple datasets were used. The 2006 and 2010 Dakota Community Development Agency's (CDA) annual Rental Market Survey data is considered the primary data source. This survey covers over 24,000 rental units in Dakota County and tracks all rental properties that have four or more units in the county. The County CDA gathers this information by obtaining a list of all the rental units in Dakota County through the Dakota County Assessor's Office. Each of these complexes were mailed a survey and asked about various aspects involving the rental complex. This survey included question related to: rental prices; vacancies; number of bedrooms; security deposits; amenities; and various other questions. The data was entered into a spreadsheet for analysis and mapping. The rental price data from this survey was used extensively for this research to analyze the affordability of Dakota County's rental stock. There were instances where the affordability rental price threshold was in between the low rent and the high rent. For instance, if a rental complex in 2006 had 8 one-bedroom units with a low rent of $730/month and a high rent of $745/month, the actual number of affordable rental units is unclear since the rental affordability threshold in 2006 was $736/month or less for one-bedroom units. While these were rare occurrences, the Dakota County CDA or the rental complex in question were called to verify how many units were at what rental price.

Burnsville Map Number: 2

Building Name & Address: Burncliff Apts
12312 & 12316 Parkwood Dr
Burnsville

Mailing Address: Burncliff Apts
12312 Parkwood Dr
Burnsville, MN 55337

Owner & Management: Owner: Sage Company — Phone #: 612-361-8000
Property Manager: Donna Jensen — Phone #: 952-890-2629
Managing Agent: Burncliff Manor — Phone #: 952-890-2629

Unit Information: Type of Unit: Apartment — Year Built: 1968 — On Site Management: Yes

Bedroom Size	Number of Unit	Low Rent	High Rent	Number of Vacancies	UA
0	8	$599	$640	0	$28
1	60	$620	$640	1	$34
2	60	$775	$800	6	$46
3					
4					
5					
Total Units:	128				

Security Deposit: $150 — Application Fee: $25 single - $40 married couple

Reasons if rents vary: Size, location, style, length of occupancy

Reasons for vacancies:

Expecting rent increase: ☐ Yes ☑ No — Date of expected rent increase:

Check the decription that best applies:
- ☐ A. Newly constructed or completely renovated.
- ☑ B. Well maintained and/or partially renovated.
- ☐ C. Adequate, but some repairs may be needed soon. No renovation since construction.

If you checked A or B above, please indicate the year last major rehab completed: 2004

Utilities Paid By Tenant: (Not included in rent)

Natural Gas Utilities:	Electric Utilities:	Additional Utilities Paid By Tenant:
☐ Heat	☐ Heat	☐ Trash collection
☐ Hot Water	☐ Hot Water	☑ Water/Sewer
☐ Cooking Fuel	☑ Cooking Fuel	Other utilities
	☑ Lighting	

Amenities Available:

- ☑ Air Conditioning — wall unit ☑ central ☐
- ☑ Blinds or Drapes
- ☑ Cable TV
- ☑ Carpet
- ☑ Deck/Patio/Balcony
- ☑ Dishwasher
- ☑ Elevator
- ☐ Fireplace
- ☑ Garbage Disposal
- ☑ Intercom/Controlled Entry
- ☐ In Unit Sprinkler System
- ☐ Microwave
- ☑ Range
- ☑ Refrigerator
- ☑ Washer/Dryer — not in unit/coin operated ☑ provided in unit ☐ hook-up in unit ☐
- ☐ Exercise Room
- ☐ Game Room
- ☐ Party Room
- ☑ Play Area
- ☐ Basketball/Volleyball Area
- ☐ Picnic/Barbeque Are
- ☐ Raquetball/Handball
- ☐ Sauna/Steam Room
- ☐ Tennis Courts
- ☑ Swimming Pool — Outdoor ☑ Indoor ☐
- ☐ Whirlpool
- ☐ On-site Medical Services
- ☑ Additional Bathrooms — full ☐ 1/2 ☑ 3/4 ☐
- ☐ Garage - Included in Rent
- ☑ Garage - Paid Separately by Tenant — Garage charge: $50
  Type of Garage: Attached ☐ Detached ☑ Underground ☐
- ☐ Outlets for Car Heater
- ☑ Pets Allowed — Pet Deposit: $250
- ☑ Bus Stop Within 1 Mile
- ☑ Medical Facilities Within 1 Mile
- ☑ Schools Within 1 Mile
- ☑ Shopping Within 1 Mile
- ☐ Handicap Accessible Units Available
- ☐ On-site Social Services

Other Amenities and/or Services: Ceiling fans

Figure 3.3: An example of Dakota Community Development Agency's (CDA) annual Rental Market Survey

The Dakota County CDA's Rental Market Survey dataset was then verified with GVA Marquette data, which is a proprietary dataset (data is purchased and has reporting restrictions) and contains over 115,000 apartment units in the 7-County Twin Cities Metropolitan Area. This dataset has many of the same attributes as the Dakota County CDA Market Survey in that rental prices and address information are available, as well as vacancy and historical information. GVA Marquette data was incorporated to make sure that no rental units are missed in the Dakota County CDA data.

Subsidized rental units were tracked using data from HousingLink. HousingLink is an affordable housing information clearinghouse "to ensure that low-to-moderate income families have access to the affordable housing information they need. HousingLink was organized in 1997 as a 501(c) 3 organization to meet this need" and they "began providing vacancy information as well as training and support to housing service agencies. Since that time, HousingLink has become Minnesota's primary source for affordable housing-related openings, data, information and resources" (HousingLink 2006). HousingLink tracks project-based (subsidy is tied to the housing unit), tenant-based (subsidy is tied to the tenant) subsidized rental units, as well as tax credit units in the Twin Cities. The 2006 and 2010 datasets containing this data were used for this task. Unfortunately, for the years 2006 and 2010, HousingLink was only able to combine tax credit units and project-based subsidized units together. The Dakota County Assessor's data is also referenced to make sure that none of the rental properties that are captured in their dataset is included in the HousingLink dataset.

The addresses for each of the rental complexes were geocoded to produce statistics and maps which show the location of affordable and unaffordable rental units in Dakota County between 2006 and 2010. Other maps show the location of only the affordable rental units for these years.

3.3 Manufactured Housing Units in Manufactured Housing Parks Data Sources

The location and number of manufactured housing units in manufactured housing parks data is from the 2006 and 2010 Metropolitan Council's Manufactured Housing Parks Survey. This survey captures the number of spaces that each mobile home park has. It also includes the number of homes located in the park, as well as the number of homes that are occupied. For this study, the number of units in the manufactured housing park for 2006 and 2010 were used. The actual location of the manufactured housing parks was also geocoded to show where in the various cities the parks are located.

4. RESULTS AND DISCUSSION

4.1 Affordable Owner-Occupied Housing Units, 2006 and 2010

Looking at data from the Dakota County Assessor's office, there were a total of 135,586 parcels in Dakota County in 2006. Of these parcels, 101,916 parcels were homestead units with a building on the property. Of these parcels, 21,472 parcels making up 21 percent of the total owner-occupied housing stock were considered affordable, as seen in Table 4.1. New Trier (88 percent), Mendota (67 percent), and Randolph (65 percent) led the county in terms of the percentage of affordable owner-occupied housing in Dakota County. These three cities (New Trier, Mendota, and Randolph) are very small communities, with less than 100 housing units. They are also older communities without an abundant amount of land to expand, so the housing units are small and on smaller lots. Among larger communities with 1,000 or more housing units, South St. Paul (57 percent), Hastings (43 percent), and West St. Paul (39 percent) were the top three in terms of their share of affordable housing units. As was the case in New Trier, Mendota, and Randolph, this would seem to make sense. South St. Paul, West St. Paul, and Hastings are older, more developed communities with smaller homes on smaller lots with an urban grid development pattern which would help keep the price of housing down. On the opposite end of the affordability spectrum, Sunfish Lake and Lilydale, which are affluent cities, had no affordable housing units as part of their communities' makeup of owner-occupied housing units. Figures 4.1 and 4.2 show the communities overall number and percentage of affordable owner-occupied units. Overall in 2006, the average

estimated market value of an owner-occupied housing unit in Dakota County was $286,338, $84,538 above the affordability threshold.

In 2010, the average estimated market value of an owner-occupied housing unit in Dakota County dropped to $244,668, which was a 14.6 percent decrease in value from 2006. The highest percentage of affordable owner-occupied housing in 2010 was South St. Paul at 95 percent, while New Trier and Coates all had over 90 percent of their owner-occupied housing units meeting the affordability threshold of $233,100. As was stated before, these communities are older, more developed communities with small lot sizes that keep the price of the housing unit lower than sprawling, large lot communities. As was also the case in 2006, Sunfish Lake did not have any affordable owner-occupied units, and Lilydale only had 2 units, or 1.7 percent of the community's owner-occupied housing stock. The overall percentage of affordable owner-occupied housing units in Dakota County in 2010 was 57.9 percent.

Community	Number of Affordable Homesteaded Parcels	Average Estimated Market Value of Affordable Owner-Occupied Units	Total Number of Homesteaded Parcels	Average Estimated Market Value of All Owner-Occupied Units	Percent of Affordable Parcels
		2006 Dakota County Assessor's Data			
Apple Valley	2,573	$ 172,811	13,298	$ 278,396	19.3%
Burnsville	2,393	$ 172,753	13,759	$ 266,943	17.4%
Castle Rock Twp.	59	$ 133,837	484	$ 380,115	11.9%
Coates	22	$ 157,455	45	$ 217,611	48.9%
Douglas Twp.	19	$ 112,763	270	$ 388,640	7.1%
Eagan	2,721	$ 165,857	16,580	$ 297,463	16.4%
Empire Twp.	114	$ 167,053	695	$ 288,556	16.4%
Eureka Twp.	30	$ 147,500	494	$ 382,231	6.1%
Farmington	1,141	$ 174,907	5,045	$ 253,313	22.6%
Greenvale Twp.	21	$ 157,181	268	$ 406,222	7.9%
Hampton	68	$ 173,891	193	$ 217,953	35.2%
Hampton Twp.	28	$ 126,607	325	$ 393,487	8.4%
Hastings	2,419	$ 175,259	5,645	$ 229,808	42.8%
Inver Grove Heights	1,533	$ 176,098	7,618	$ 306,853	20.1%
Lakeville	1,474	$ 178,607	14,151	$ 314,805	10.4%
Lilydale	No Affordable Units	No Affordable Units	117	$ 578,956	No Affordable Units
Marshan Twp.	19	$104,637	413	$ 356,573	4.6%
Mendota	39	$ 139,944	58	$ 219,626	67.2%
Mendota Heights$	46	$ 173,589	3,441	$ 402,057	1.3%
Miesville	22	$ 160,995	47	$ 254,926	46.8%
New Trier	30	$ 151,873	34	$ 162,653	88.2%
Nininger Twp.	24	$ 108,529	306	$ 356,301	7.9%
Northfield	65	$ 171,369	327	$ 266,339	19.9%
Randolph	81	$ 152,494	124	$ 187,448	65.3%
Randolph Twp.	19	$ 158,000	219	$ 338,055	8.7%
Ravenna Twp.	18	$ 131,017	773	$ 320,317	2.1%
Rosemount	1,226	$ 181,922	5,630	$ 295,541	21.8%
Sciota Twp.	23	$ 135,257	138	$ 345,623	16.1%
South St. Paul	3,293	$ 175,113	5,817	$ 204,295	56.6%
Sunfish Lake	No Affordable Units	No Affordable Units	172	$ 843,449	No Affordable Units
Vermillion	57	$ 181,928	148	$ 219,102	38.5%
Vermillion Twp.	22	$ 103,127	418	$ 362,470	4.8%
Waterford Twp.	56	$ 159,370	193	$ 300,797	28.8%
West St. Paul	1,817	$ 176,579	4,671	$ 232,107	38.9%
Dakota County Totals	**21,472**	**$ 173,338**	**101,916**	**$286,338**	**21.1%**

Source: 2006 MetroGIS Parcel Dataset.
Table 4.1: Table showing owner-occupied parcel information in Dakota County, 2006.

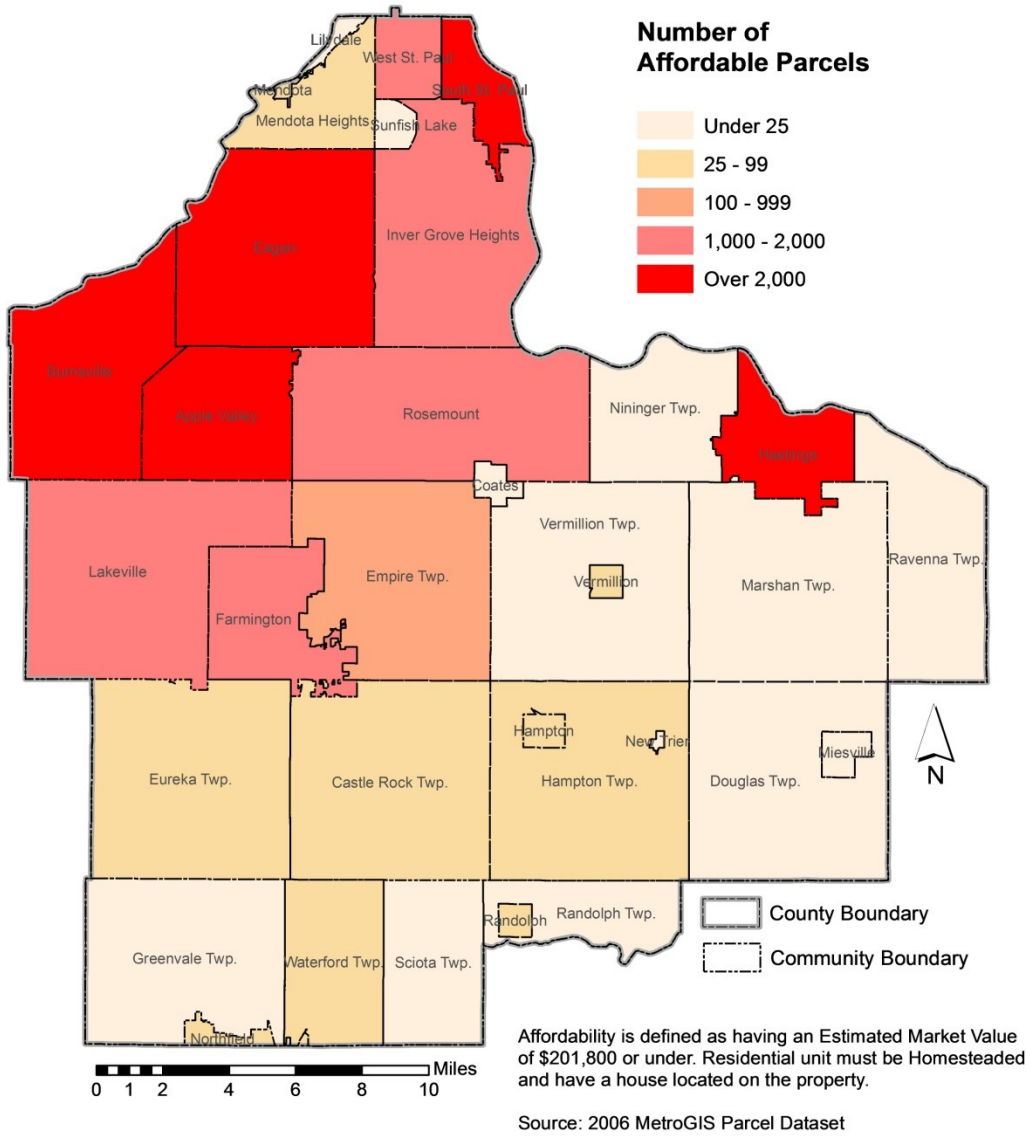


Figure 4.1: Map showing the number of affordable owner-occupied units in Dakota County by community, 2006.

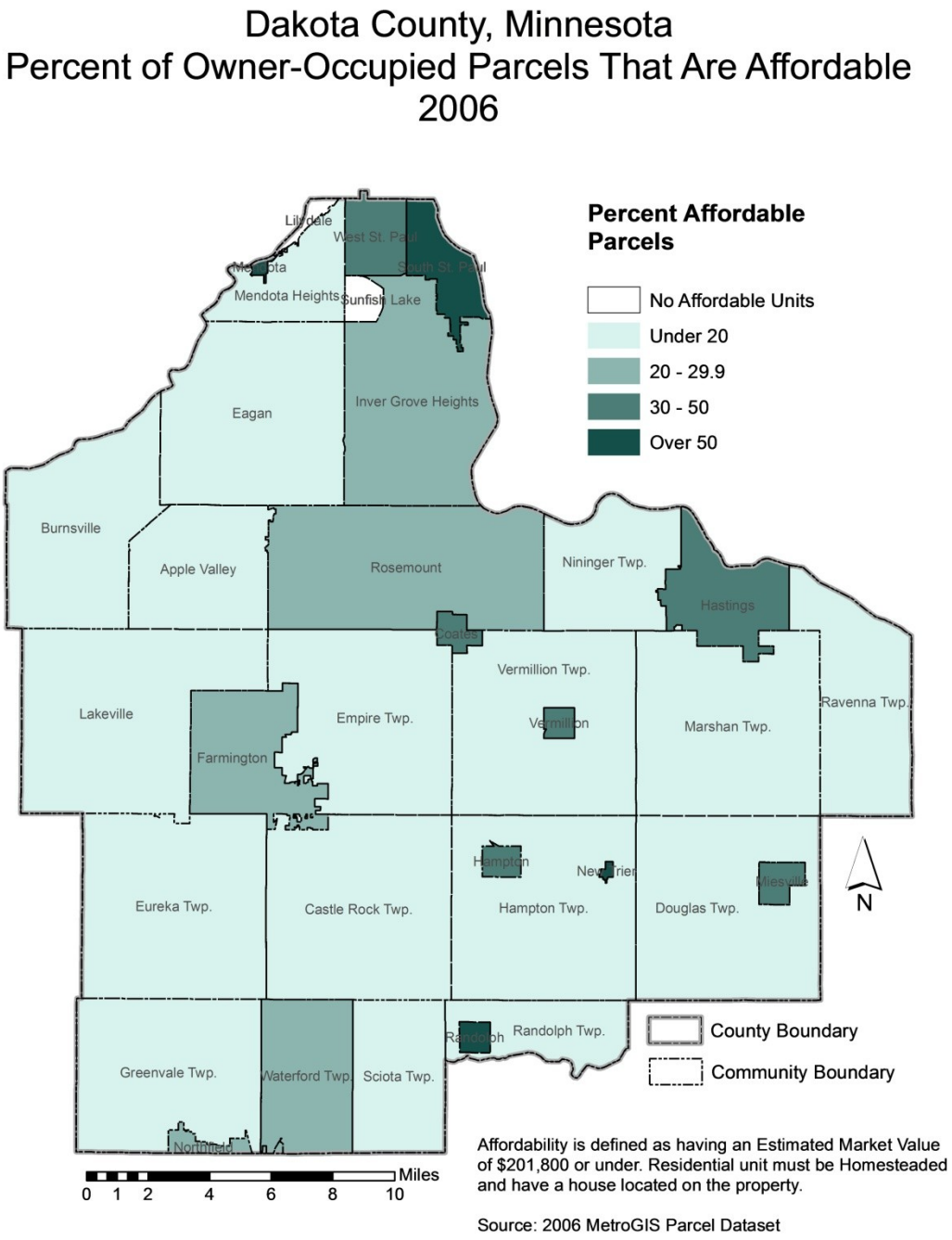


Figure 4.2: Map showing the percent of affordable owner-occupied units that were affordable in Dakota County by community, 2006.

	2010 Dakota County Assessor's Data				
Community	Number of Affordable Homesteaded Parcels	Average Estimated Market Value of Affordable Owner-Occupied Units	Total Number of Homesteaded Parcels	Average Estimated Market Value of Owner-Occupied Units	Percent of Affordable Parcels
Apple Valley	7,984	$ 180,957	13,339	$ 236,198	59.9%
Burnsville	9,501	$ 186,545	13,713	$ 223,757	69.3%
Castle Rock Twp.	141	$ 172,043	488	$ 322,865	28.9%
Coates	39	$ 162,238	43	$ 190,484	90.7%
Douglas Twp.	52	$ 174,725	275	$ 363,805	18.9%
Eagan	7,805	$ 183,299	16,616	$ 260,052	47.0%
Empire Twp.	411	$ 175,675	746	$ 243,512	55.1%
Eureka Twp.	124	$ 192,094	498	$ 347,142	24.9%
Farmington	3,843	$ 175,408	5,423	$ 205,854	70.9%
Greenvale Twp.	60	$ 182,867	275	$ 354,436	21.8%
Hampton	178	$ 183,813	199	$ 192,808	89.4%
Hampton Twp.	65	$ 175,452	335	$ 366,445	19.4%
Hastings	4,608	$ 169,322	5,740	$ 194,758	80.3%
Inver Grove Heights	3,988	$ 178,538	7,641	$ 263,106	52.2%
Lakeville	6,823	$ 189,484	14,868	$ 267,102	45.9%
Lilydale	2	$ 221,950	118	$ 497,878	1.7%
Marshan Twp.	86	$ 177,535	425	$ 327,291	20.2%
Mendota	42	$ 141,429	63	$ 265,146	66.7%
Mendota Heights	563	$ 206,654	3,428	$ 355,229	16.4%
Miesville	35	$ 166,660	52	$ 213,994	67.3%
New Trier	31	$ 139,029	33	$ 146,085	93.9%
Nininger Twp.	91	$ 180,987	310	$ 309,509	29.4%
Northfield	184	$ 183,994	366	$ 240,330	50.3%
Randolph	117	$ 159,945	133	$ 172,304	88.0%
Randolph Twp.	47	$ 175,257	235	$ 336,544	20.0%
Ravenna Twp.	278	$ 202,249	778	$ 268,353	35.7%
Rosemount	3,187	$ 180,958	5,978	$ 252,881	53.3%
Sciota Twp.	66	$ 176,688	158	$ 318,252	41.8%
South St. Paul	5,486	$ 156,487	5,782	$ 162,552	94.9%
Sunfish Lake	No Affordable Units	No Affordable Units	176	$ 841,422	No Affordable Units
Vermillion	130	$ 177,191	151	$ 191,645	86.1%
Vermillion Twp.	117	$ 184,562	422	$ 327,423	27.7%
Waterford Twp.	108	$ 174,581	200	$ 278,507	54.0%
West St. Paul	3,836	$ 172,715	4,610	$ 195,472	83.2%
Dakota County Totals	**60,028**	**$179,121**	**103,617**	**$ 244,668**	**57.9%**

Source: 2010 MetroGIS Parcel Dataset.

Table 4.2: Table showing owner-occupied parcel information in Dakota County, 2010.

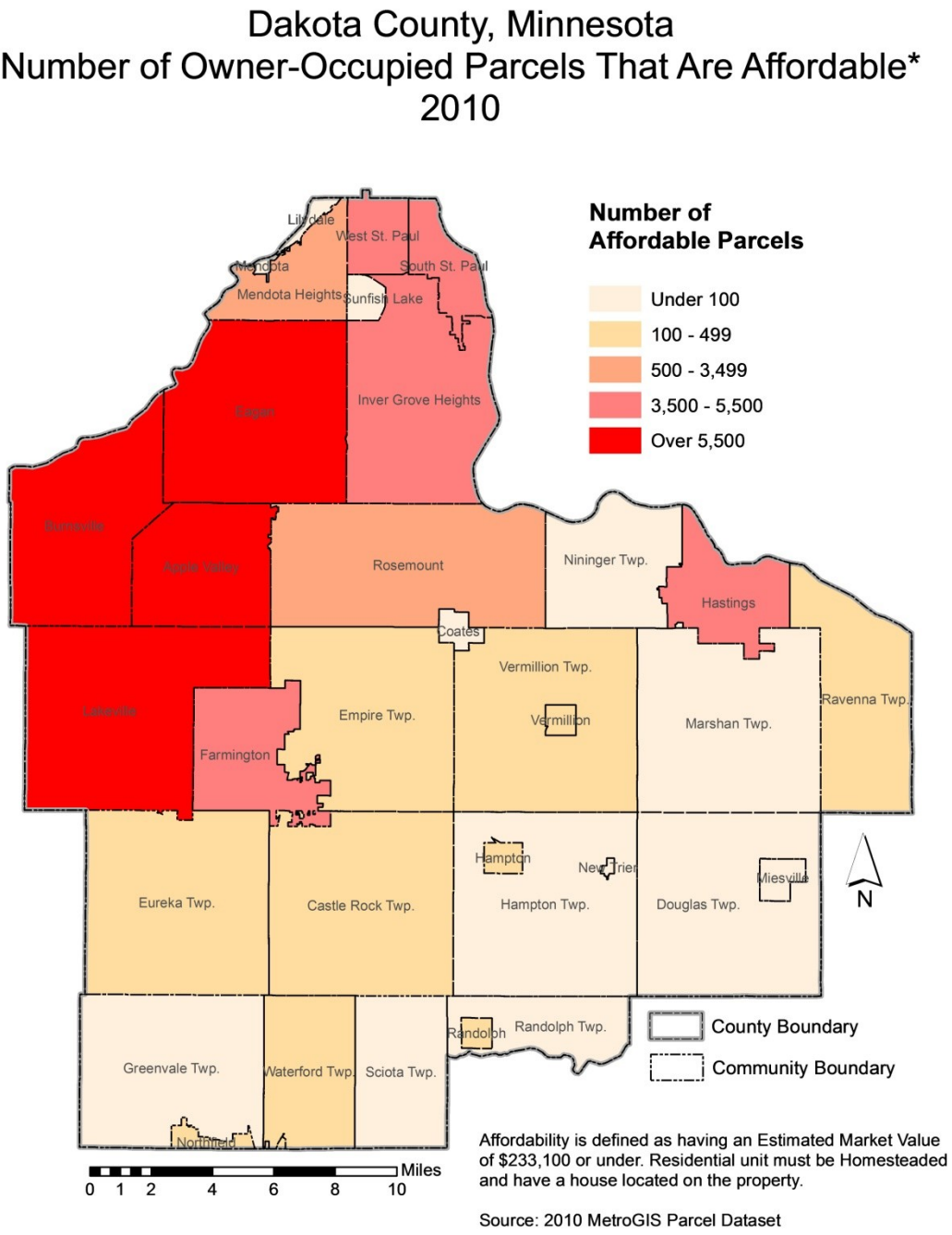


Figure 4.3: Map showing the number of affordable owner-occupied units in Dakota County by community, 2010.

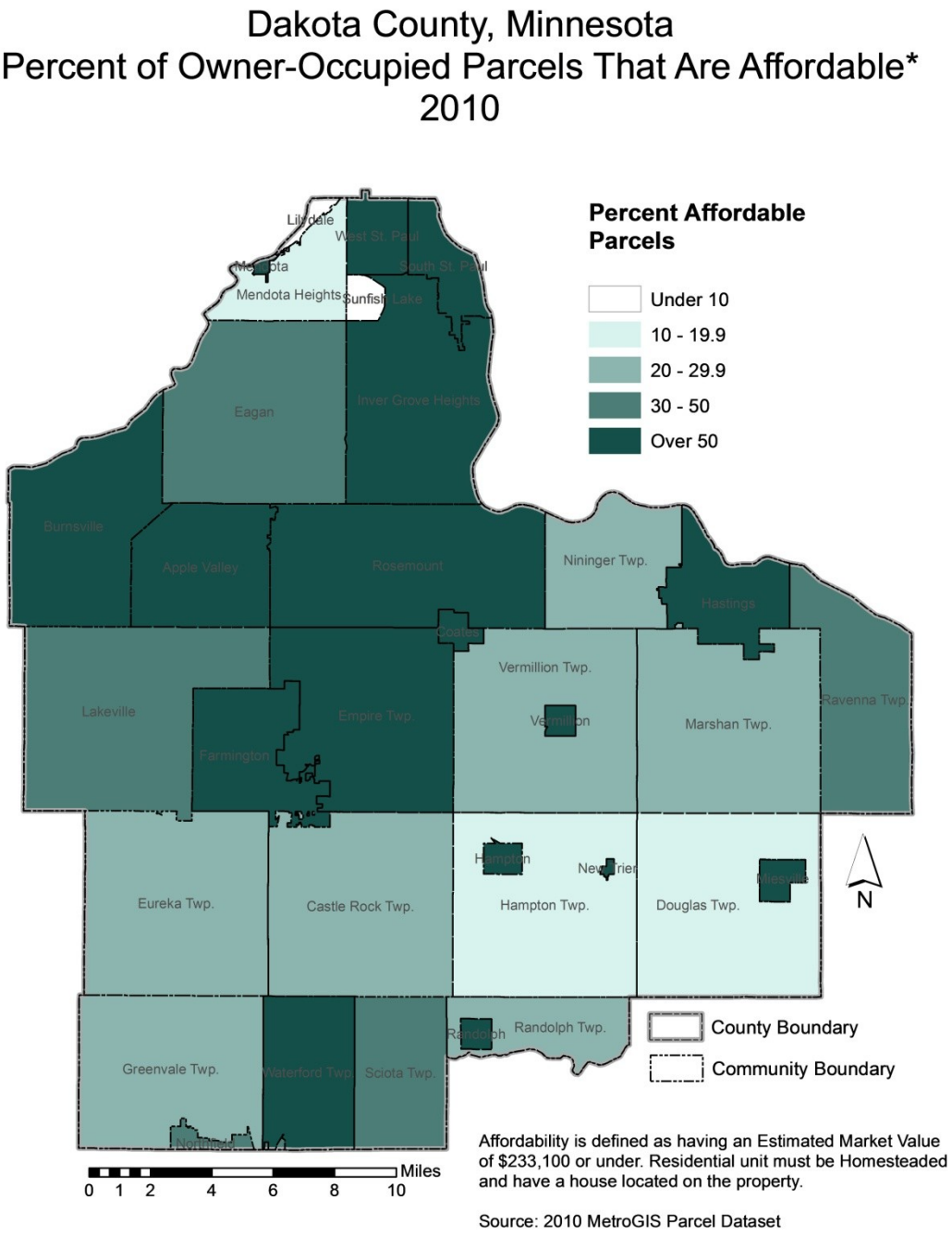


Figure 4.4: Map showing the percent of affordable owner-occupied units that were affordable in Dakota County by community, 2006.

4.2 Rental Housing Units, 2006 and 2010

Only 18 of the 34 communities in Dakota County had rental housing in 2006 as seen in Table 4.3. A total of 24,662 rental housing units were captured in the year 2006. Of these, a little over one-half (51.2 percent), or 12,638 units, met the criteria to be considered affordable ($687/month for an efficiency or single-room occupancy unit; $736/month for a one-bedroom unit; $883/month for a two-bedroom unit; $996/month for a three bedroom unit or larger (Metropolitan Council 2006a). Again, this means that any rental unit that has rents at or below these thresholds is considered affordable. Overall, Dakota County had 51 percent of their rental stock calculated as affordable in 2006, which included Tax Credit units, project based subsidized units (subsidy is tied to the housing unit), Housing Choice Vouchers (subsidy is tied to the tenant), and naturally occurring market-rate affordable units (no subsidies). According to the results in Eureka Township, Mendota, Randolph, Vermillion, Vermillion Township, and Waterford Township 100 percent of the rental stock was affordable. While this looks significant, all of these rural communities represent 0.3 percent of the county's total of affordable rental units and all were affordable without the use of subsidies. Some larger communities, such as Rosemount (95.5 percent), South St. Paul (86.5 percent), and West St. Paul (84.1 percent) had large percentages of their overall rental housing stock as affordable rental housing. Ninety-eight percent of South St. Paul's affordable rental units were subsidized units. Figures 4.5 through 4.6 show the geographic distribution of affordable rental housing as well as the total amount of rental housing in Dakota County in 2006.

2006 Rental Units

Community	Total Units	Tax Credit Units*	Housing Choice Vouchers**	Market-Rate Affordable Units	Total Affordable Units	Percent Affordable
Apple Valley	2,045	145	211	240	596	**29.1%**
Burnsville	7,248	136	609	2,594	3,339	**46.1%**
Castle Rock Twp.	-	-	-	-	-	**No Rental Units**
Coates	-	-	-	-	-	**No Rental Units**
Douglas Twp.	-	-	-	-	-	**No Rental Units**
Eagan	5,758	92	362	2,044	2,498	**43.4%**
Empire Twp.	-	-	-	-	-	**No Rental Units**
Eureka Twp.	4	-	-	4	4	**100.0%**
Farmington	304	48	30	157	235	**77.3%**
Greenvale Twp.	-	-	-	-	-	**No Rental Units**
Hampton	-	-	-	-	-	**No Rental Units**
Hampton Twp.	-	-	-	-	-	**No Rental Units**
Hastings	1,063	86	80	696	862	**81.1%**
Inver Grove Heights	2,829	109	147	716	972	**34.4%**
Lakeville	840	103	114	297	514	**61.2%**
Lilydale	133	-	1	-	1	**0.8%**
Marshan Twp.	-	-	-	-	-	**No Rental Units**
Mendota	15	-	-	15	15	**100.0%**
Mendota Heights	374	24	32	93	149	**39.8%**
Miesville	-	-	-	-	-	**No Rental Units**
New Trier	-	-	-	-	-	**No Rental Units**
Nininger Twp.	-	-	-	-	-	**No Rental Units**
Northfield	-	-	-	-	-	**No Rental Units**
Randolph	4	-	-	4	4	**100.0%**
Randolph Twp.	-	-	-	-	-	**No Rental Units**
Ravenna Twp.	-	-	-	-	-	**No Rental Units**
Rosemount	244	36	37	160	233	**95.5%**
Sciota Twp.	-	-	-	-	-	**No Rental Units**
South St. Paul	768	58	591	15	664	**86.5%**
Sunfish Lake	-	-	-	-	-	**No Rental Units**
Vermillion	12	-	-	12	12	**100.0%**
Vermillion Twp.	4	-	-	4	4	**100.0%**
Waterford Twp.	2	-	-	2	2	**100.0%**
West St. Paul	3,015	160	312	2,063	2,535	**84.1%**
Dakota County Total	**24,662**	**997**	**2,526**	**9,115**	**12,639**	**51.2%**

*Tax Credit Units include project based subsidized units. The subsidy stays with the housing unit and not the tenant.
** Housing Choice Vouchers include tenant based subsidized units. The subsidy stays with the tenant and not the housing unit.

Source: 2006 Dakota County Community Development Agency's Rental Market Survey and 2006 HousingLink.

Table 4.3: Table showing the number of rental units by type in Dakota County, 2006.

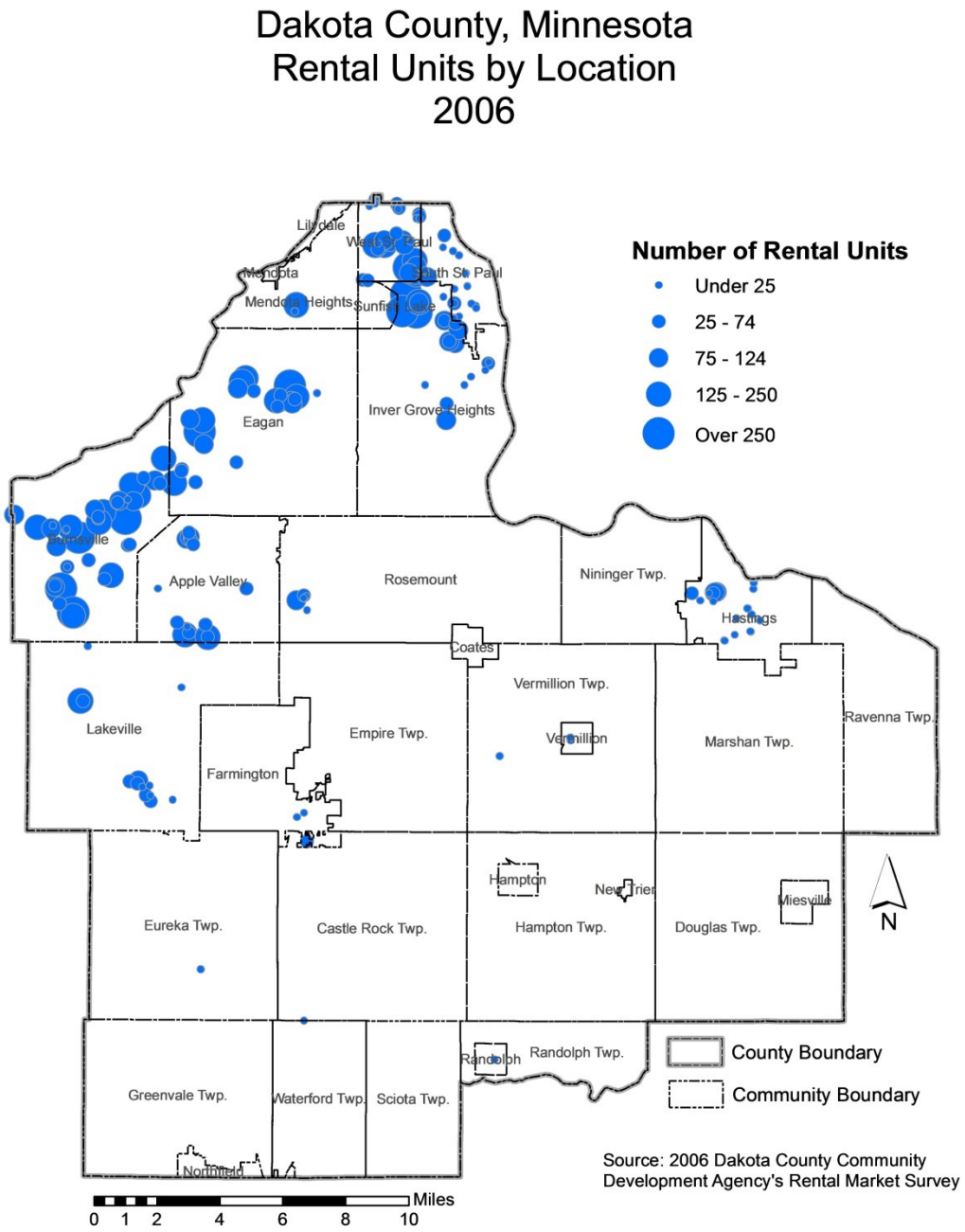


Figure 4.5: Geocoded location of all rental units in Dakota County, 2006.

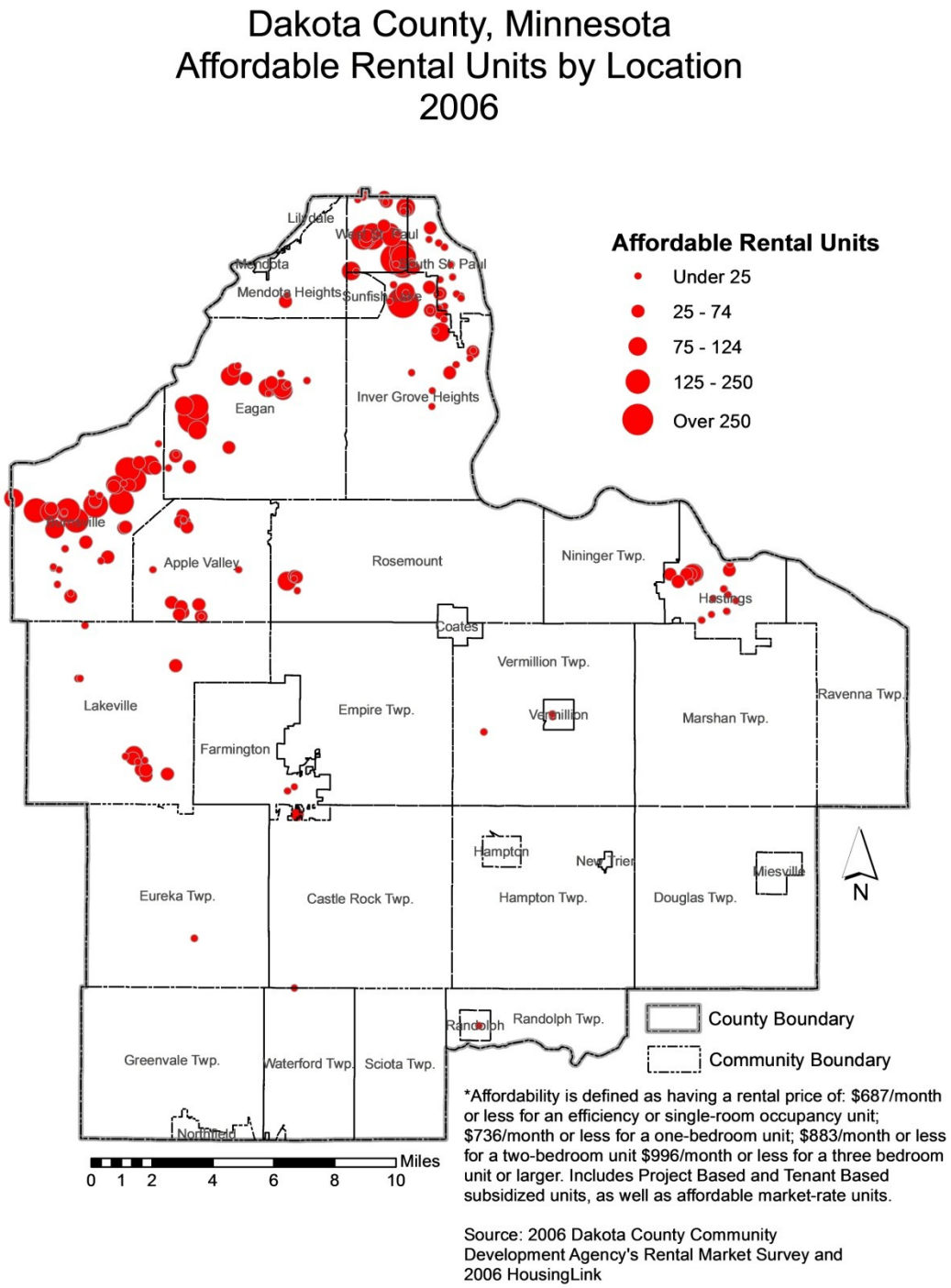


Figure 4.6: Geocoded location of affordable rental units in Dakota County, 2006.

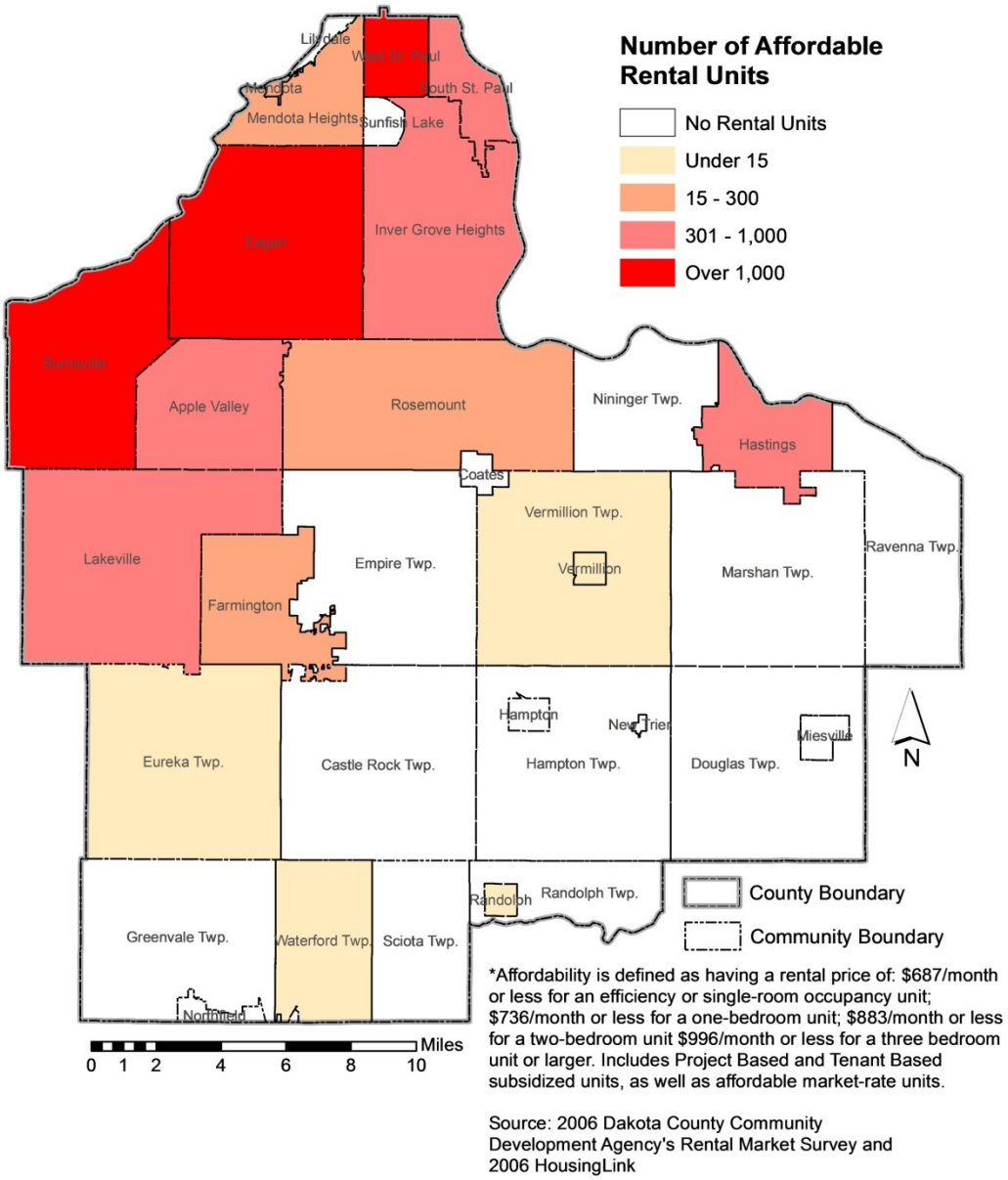


Figure 4.7: Map showing the number of affordable rental units in Dakota County by community, 2006.

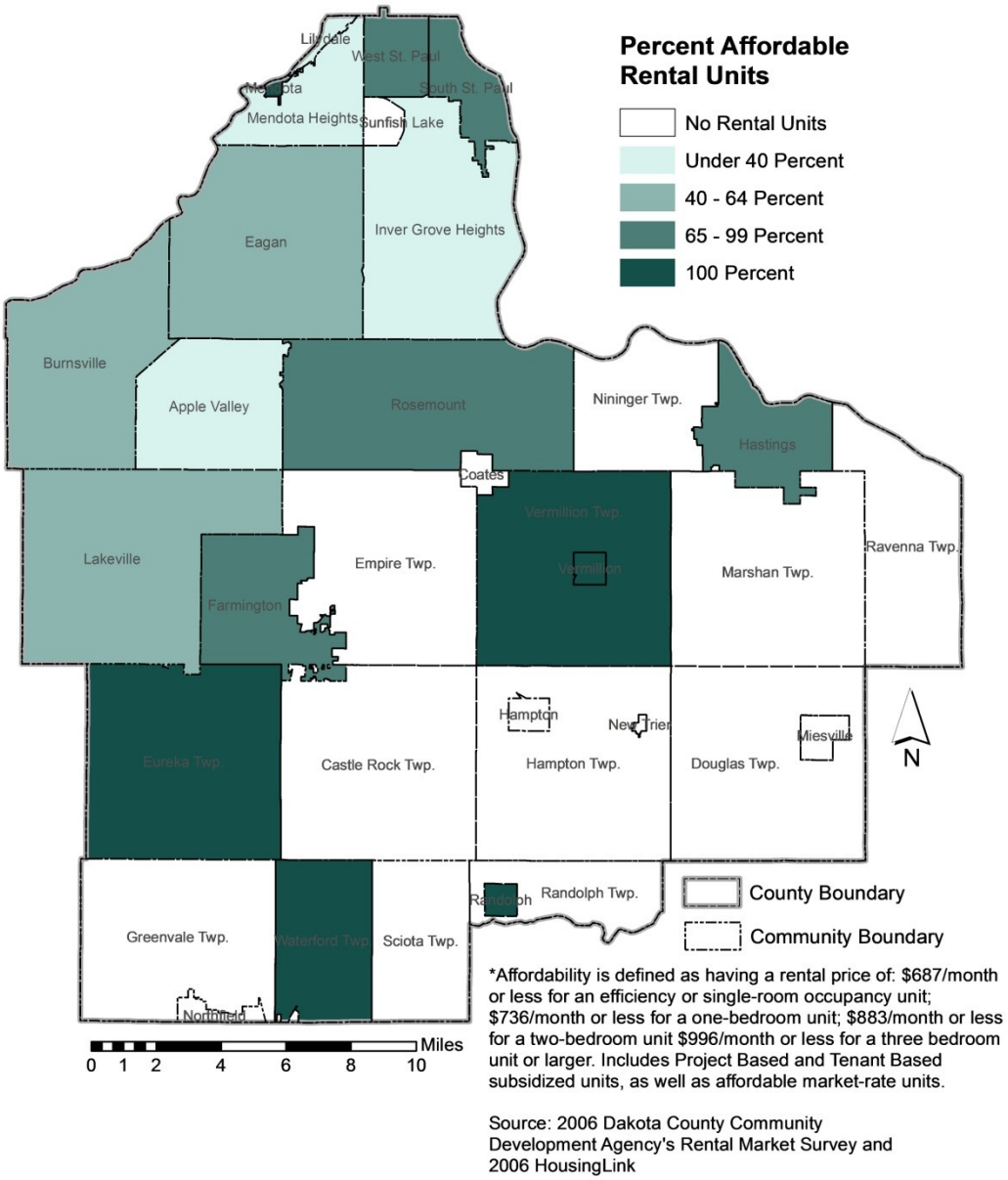


Figure 4.8: Map showing the percent of all rental units that were affordable in Dakota County by community, 2006.

In 2010, only 17 out of the 34 communities in Dakota County had rental units, as seen in Table 4.4. A total of 26,571 rental housing units were captured in the year 2010. Of these, 16,502 units, or 62.1 percent of the overall rental housing stock met the criteria to be considered affordable ($735/month for an efficiency or single-room occupancy unit; $787/month for a one-bedroom unit; $945/month for a two-bedroom unit; $1,092/month for a three bedroom unit or larger (Metropolitan Council 2011). Again, this means that any rental unit that has rents at or below these thresholds is considered affordable. Overall in Dakota County 62 percent of their rental stock was affordable in 2010. These units included Tax Credit units, project based subsidized units (subsidy is tied to the housing unit), Housing Choice Vouchers (subsidy is tied to the tenant), and naturally occurring market-rate affordable units (no subsidies). According to the results, all of the rental housing stock in Castle Rock Township, Eureka Township, Hampton, Randolph, and Vermillion was affordable. As was the case in 2006, all of these communities were rural areas and constituted 0.3 percent of the county's total of affordable rental units and all were affordable with a minimal use of subsidies. Some larger communities, such as South St. Paul (91.1 percent), West St. Paul (86.2 percent), Hastings (81.7 percent), and Farmington (81.0 percent) had large percentages of their rental housing stock as affordable. As was the case in 2006, South St. Paul had a large percent of its affordable rental stock as subsidized units (78 percent).

2010 Rental Units

Community	Total Units	Tax Credit Units*	Housing Choice Vouchers**	Market-Rate Affordable Units	Total Affordable Units	Percent Affordable
Apple Valley	2,478	152	243	593	988	**39.9%**
Burnsville	7,513	191	772	3,911	4,874	**64.9%**
Castle Rock Twp.	2	-	-	2	2	**100.0%**
Coates	-	-	-	-	-	**No Rental Units**
Douglas Twp.	-	-	-	-	-	**No Rental Units**
Eagan	5,855	76	451	2,717	3,244	**55.4%**
Empire Twp.	-	-	-	-	-	**No Rental Units**
Eureka Twp.	4	-	-	4	4	**100.0%**
Farmington	321	73	35	152	260	**81.0%**
Greenvale Twp.	-	-	-	-	-	**No Rental Units**
Hampton	27	-	4	23	27	**100.0%**
Hampton Twp.	-	-	-	-	-	**No Rental Units**
Hastings	1,246	110	100	808	1,018	**81.7%**
Inver Grove Heights	2,838	142	188	922	1,252	**44.1%**
Lakeville	1,184	191	132	384	707	**59.7%**
Lilydale	133	-	1	-	1	**0.8%**
Marshan Twp.	-	-	-	-	-	**No Rental Units**
Mendota	-	-	-	-	-	**No Rental Units**
Mendota Heights	374	24	33	92	149	**39.8%**
Miesville	-	-	-	-	-	**No Rental Units**
New Trier	-	-	-	-	-	**No Rental Units**
Nininger Twp.	-	-	-	-	-	**No Rental Units**
Northfield	-	-	-	-	-	**No Rental Units**
Randolph	2	-	-	2	2	**100.0%**
Randolph Twp.	-	-	-	-	-	**0.0%**
Ravenna Twp.	-	-	-	-	-	**No Rental Units**
Rosemount	403	68	46	193	307	**76.2%**
Sciota Twp.	-	-	-	-	-	**0.0%**
South St. Paul	1,064	68	685	216	969	**91.1%**
Sunfish Lake	-	-	-	-	-	**No Rental Units**
Vermillion	8	-	-	8	8	**100.0%**
Vermillion Twp.	-	-	-	-	-	**No Rental Units**
Waterford Twp.	-	-	-	-	-	**No Rental Units**
West St. Paul	3,119	160	401	2,129	2,690	**86.2%**
Dakota County Total	**26,571**	**1,255**	**3,091**	**12,156**	**16,502**	**62.1%**

*Tax Credit Units include project based subsidized units. The subsidy stays with the housing unit and not the tenant.
** Housing Choice Vouchers include tenant based subsidized units. The subsidy stays with the tenant and not the housing unit.

Source: 2010 Dakota County Community Development Agency's Rental Market Survey and 2010 HousingLink.

Table 4.4: Table showing the number of rental units by type in Dakota County, 2010.

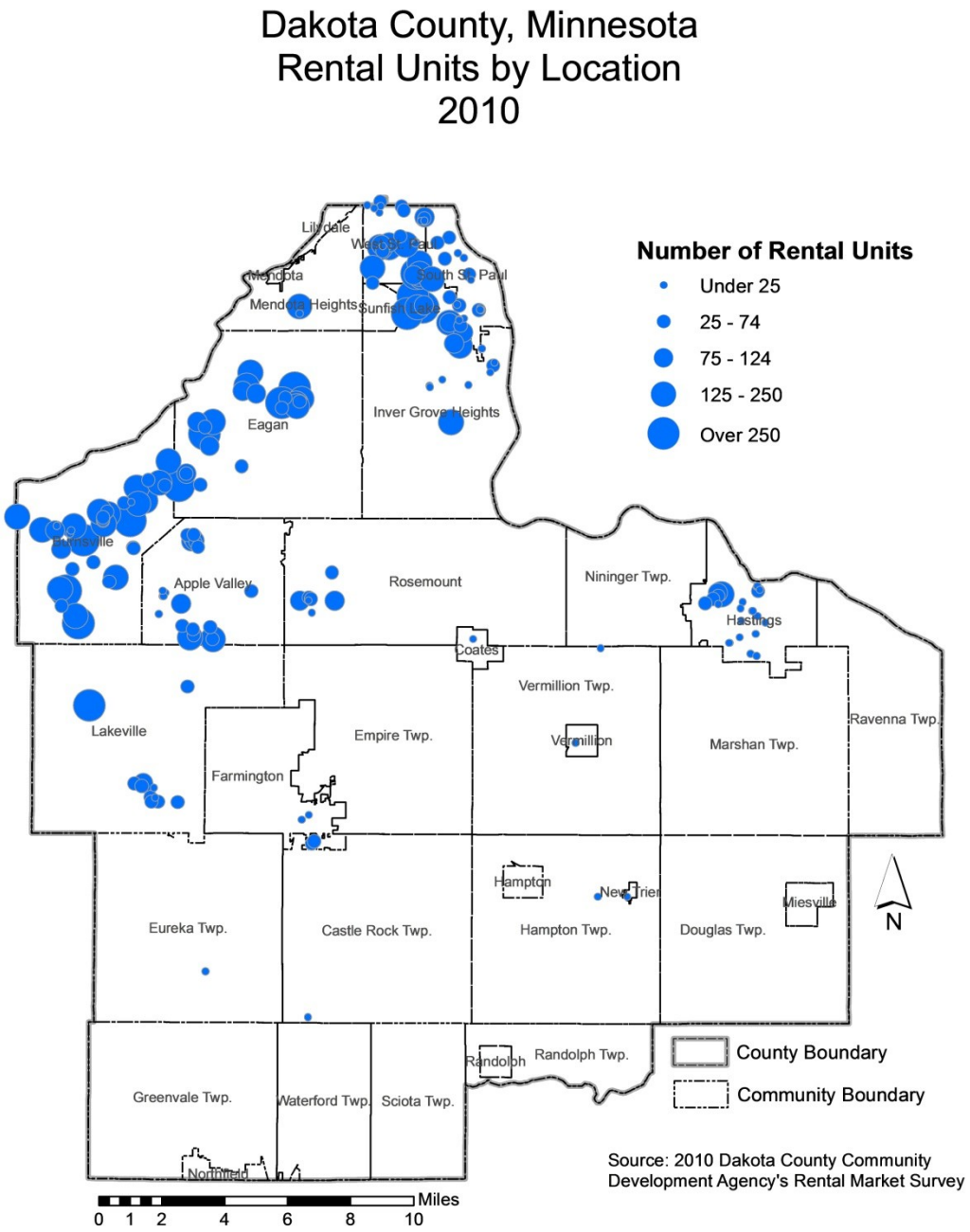


Figure 4.9: Geocoded location of all rental units in Dakota County, 2010.

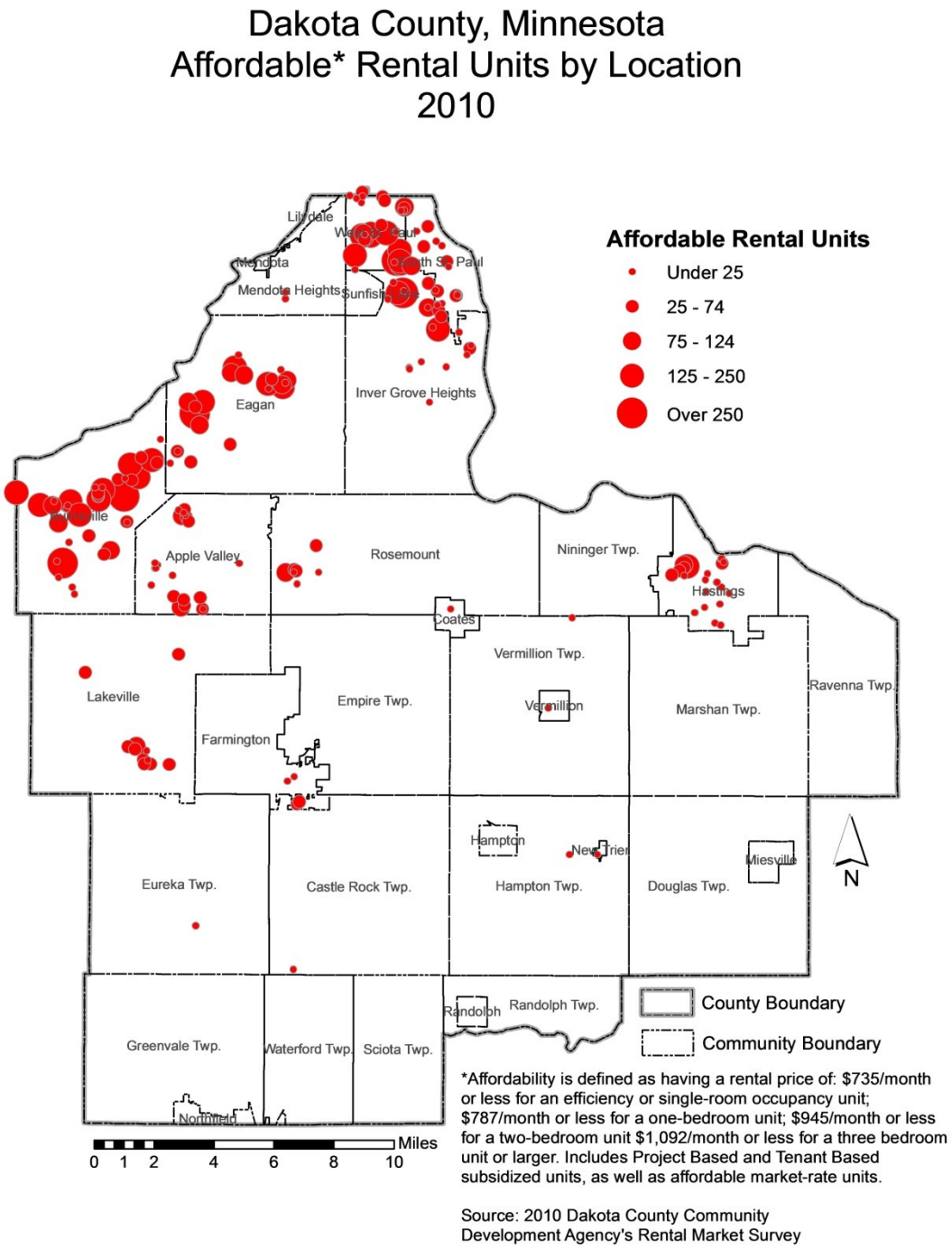


Figure 4.10: Geocoded location of affordable rental units in Dakota County, 2010.

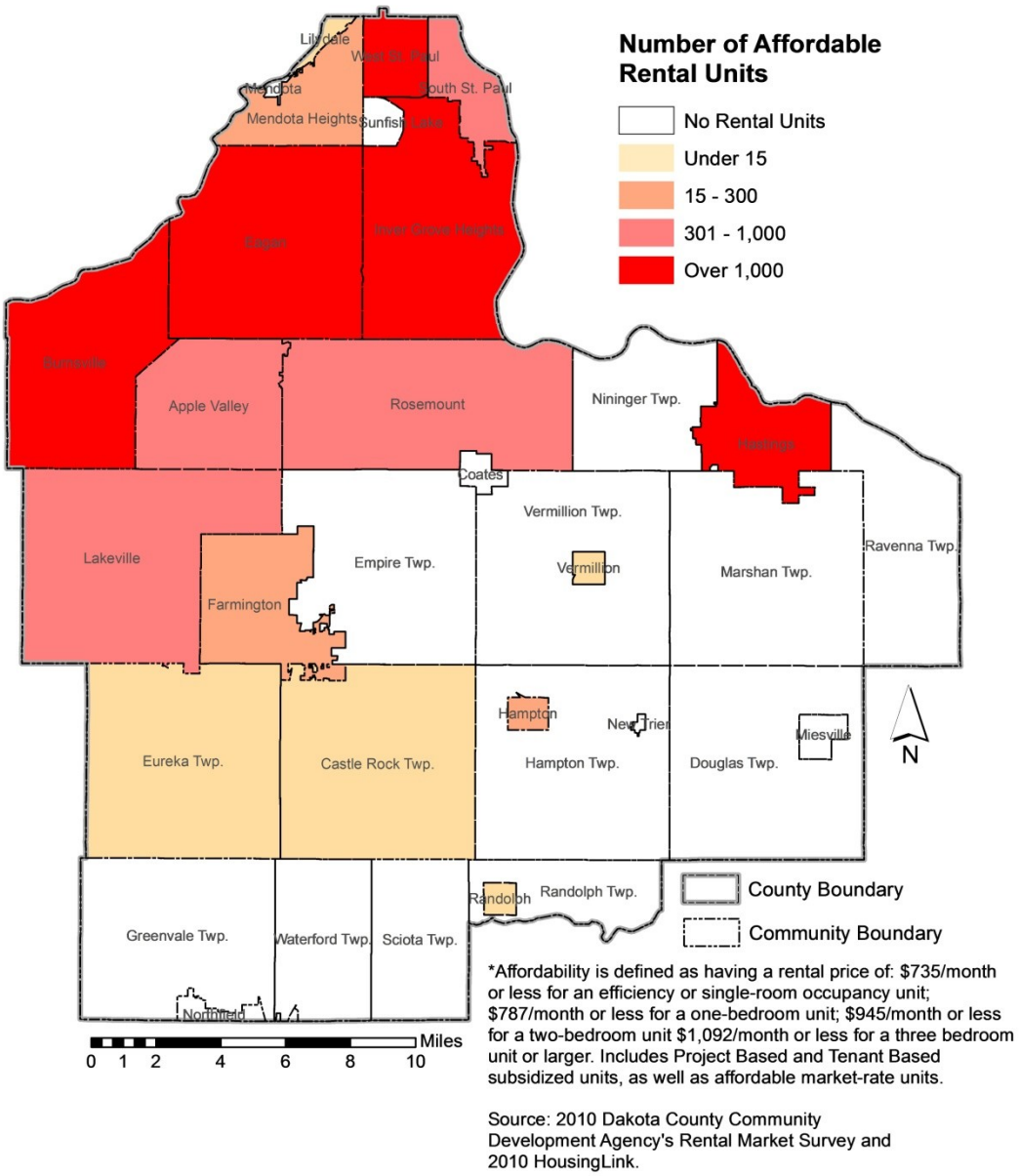


Figure 4.11: Map showing the number of affordable rental units in Dakota County by community, 2010

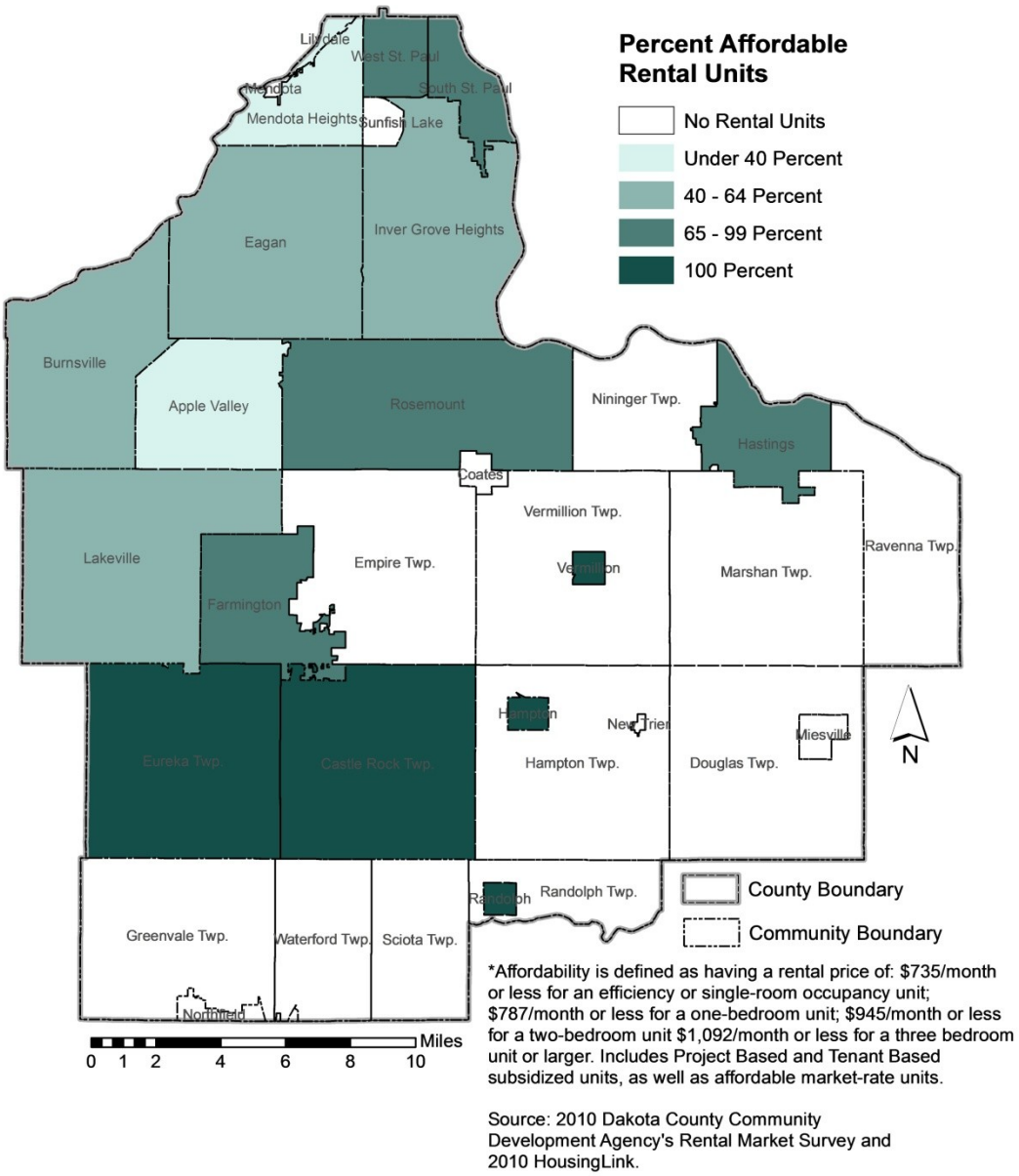


Figure 4.12: Map showing the percent of all rental units that were affordable in Dakota County by community, 2010.

4.3 Manufactured Housing Units in Manufactured Housing Parks, 2006 and 2010

There were 3,651 manufactured housing units in manufactured housing parks in Dakota County in 2006, as seen in Table 4.5. As stated before, all manufactured housing units are universally considered affordable. Lakeville had the most manufactured housing parks (5) in Dakota County and had the largest number of units (999) as well. Inver Grove Heights had 830 units in 3 parks and Burnsville had 721 units in 3 parks (Figures 4.13 and 4.14).

In Dakota County, there were 3,431 manufactured housing units in manufactured housing parks in 2010, as seen in Table 4.6. Lakeville had the largest number of manufactured housing parks (5) and the highest number of units (897) while Inver Grove Heights and Burnsville each had three parks with 797 units and 712 units respectively (Figures 4.15 and 4.16).

2006 Manufactured Housing in Manufactured Housing Parks

Community	Name of Manufactured Housing Park	Number of Spaces	Number of Units	Number of Occupied Units
Apple Valley	Apple Valley Estates	107	105	94
Apple Valley	Cedar Knolls Mobile Home Community	458	437	419
Burnsville	Arbor Vista	319	293	291
Burnsville	Rambush Estates	223	209	207
Burnsville	Sunny Acres Mobile Home Park	219	219	206
Hastings	Hastings Mobile Home Terrace	38	38	35
Hastings	Three Rivers Mobile Home Park	355	302	297
Inver Grove Heights	Emerald Hills Village	401	391	385
Inver Grove Heights	Skyline Village Mobile Home Park	398	377	367
Inver Grove Heights	Southridge	64	62	61
Lakeville	Ardmor Village	339	265	193
Lakeville	Connelly's Mobile Home Park	61	52	49
Lakeville	Country View Manufactured Home Community	373	373	349
Lakeville	North Creek Manufactured Housing Community	165	160	158
Lakeville	Queen Anne Courts	157	149	149
Rosemount	Rosemount Woods	182	182	178
South St. Paul	Healy Mobile Home Park	38	37	35
Dakota County Totals		**3,897**	**3,651**	**3,473**

Source: Metropolitan Council's Manufactured Housing Park Survey, 2006
Table 4.5: Table showing data regarding manufactured housing parks in Dakota County, 2006

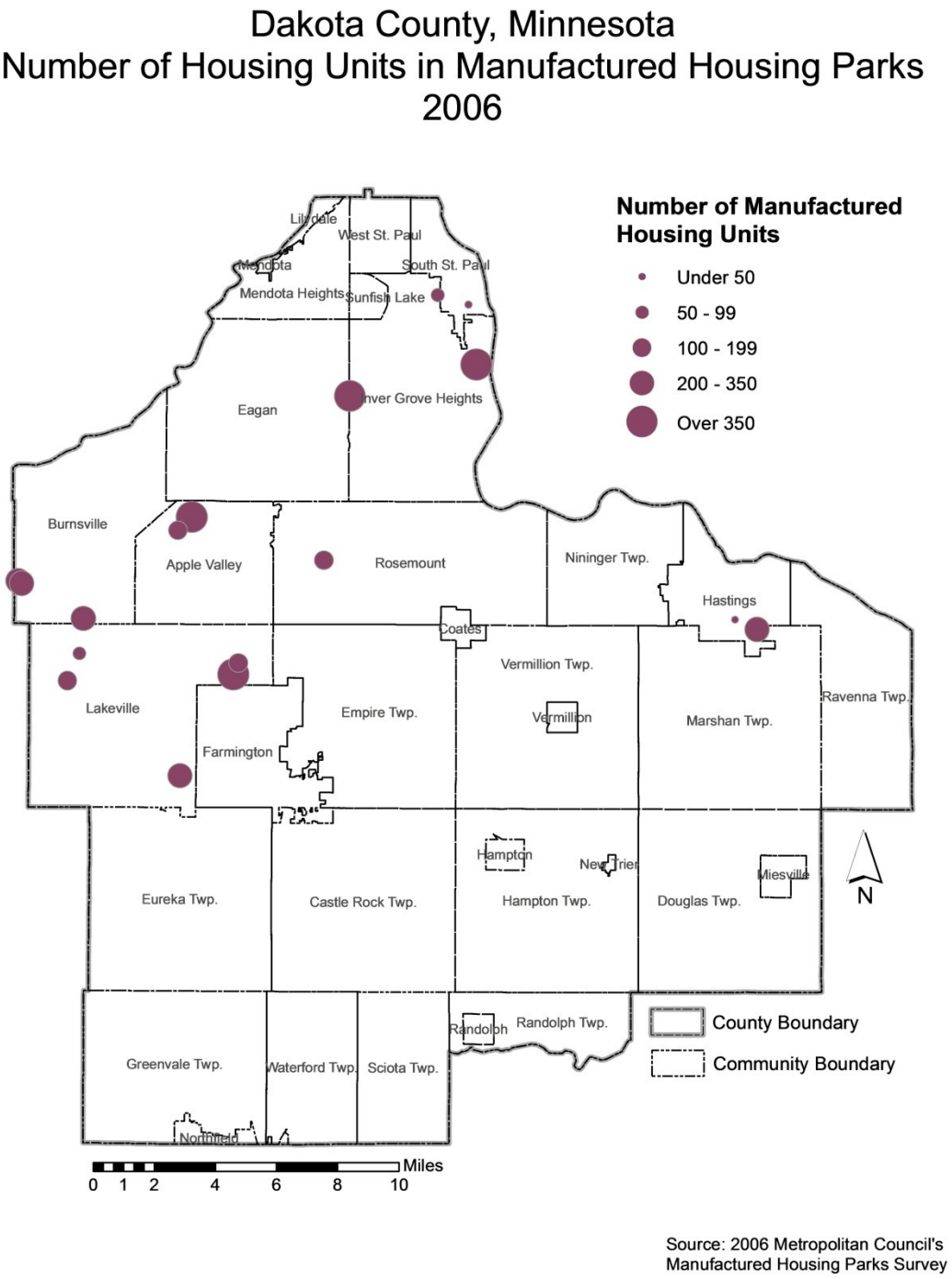


Figure 4.13: Geocoded location manufactured housing units in manufactured housing parks in Dakota County, 2006.

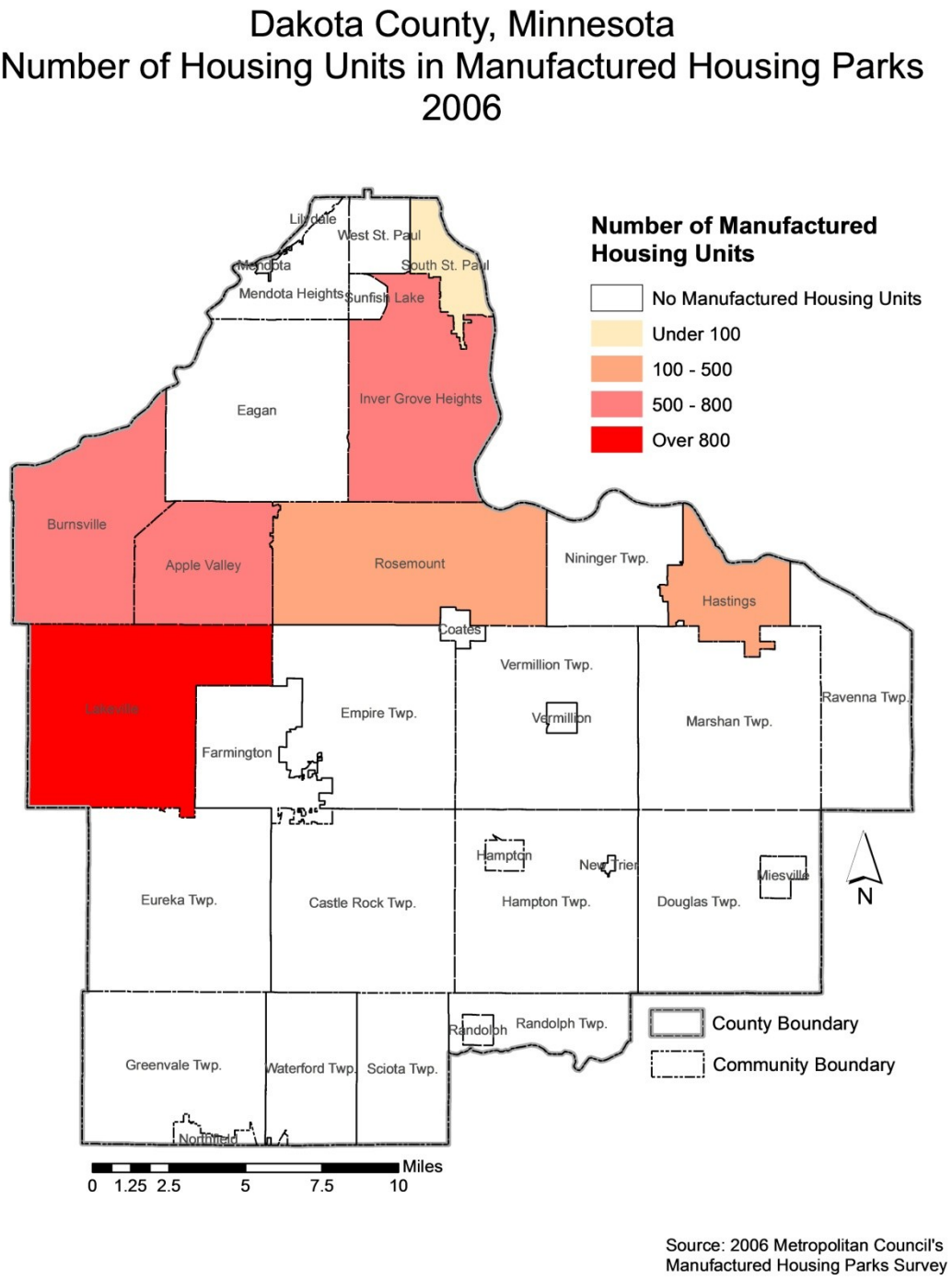


Figure 4.14: Map showing the number of manufactured housing units in manufactured housing parks in Dakota County by community, 2006.

2010 Manufactured Housing in Manufactured Housing Parks

Community	Name of Manufactured Housing Park	Number of Spaces	Number of Units	Number of Occupied Units
Apple Valley	Apple Valley Estates	108	85	83
Apple Valley	Cedar Knolls Mobile Home Community	459	423	406
Burnsville	Arbor Vista	319	277	264
Burnsville	Rambush Estates	223	223	212
Burnsville	Sunny Acres Mobile Home Park	219	212	204
Hastings	Hastings Mobile Home Terrace	37	35	34
Hastings	Three Rivers Mobile Home Park	355	263	260
Inver Grove Heights	Emerald Hills Village	401	390	376
Inver Grove Heights	Skyline Village Mobile Home Park	399	345	329
Inver Grove Heights	Southridge	64	62	55
Lakeville	Ardmor Village	339	177	177
Lakeville	Connelly's Mobile Home Park	60	58	57
Lakeville	Country View Manufactured Home Community	373	350	347
Lakeville	North Creek Manufactured Housing Community	165	155	150
Lakeville	Queen Anne Courts	157	157	154
Rosemount	Rosemount Woods	182	181	177
South St. Paul	Healy Mobile Home Park	38	38	36
Dakota County Totals		**3,898**	**3,431**	**3,321**

Source: Metropolitan Council's Manufactured Housing Park Survey, 2010
Table 4.6: Table showing data regarding manufactured housing parks in Dakota County, 2010.

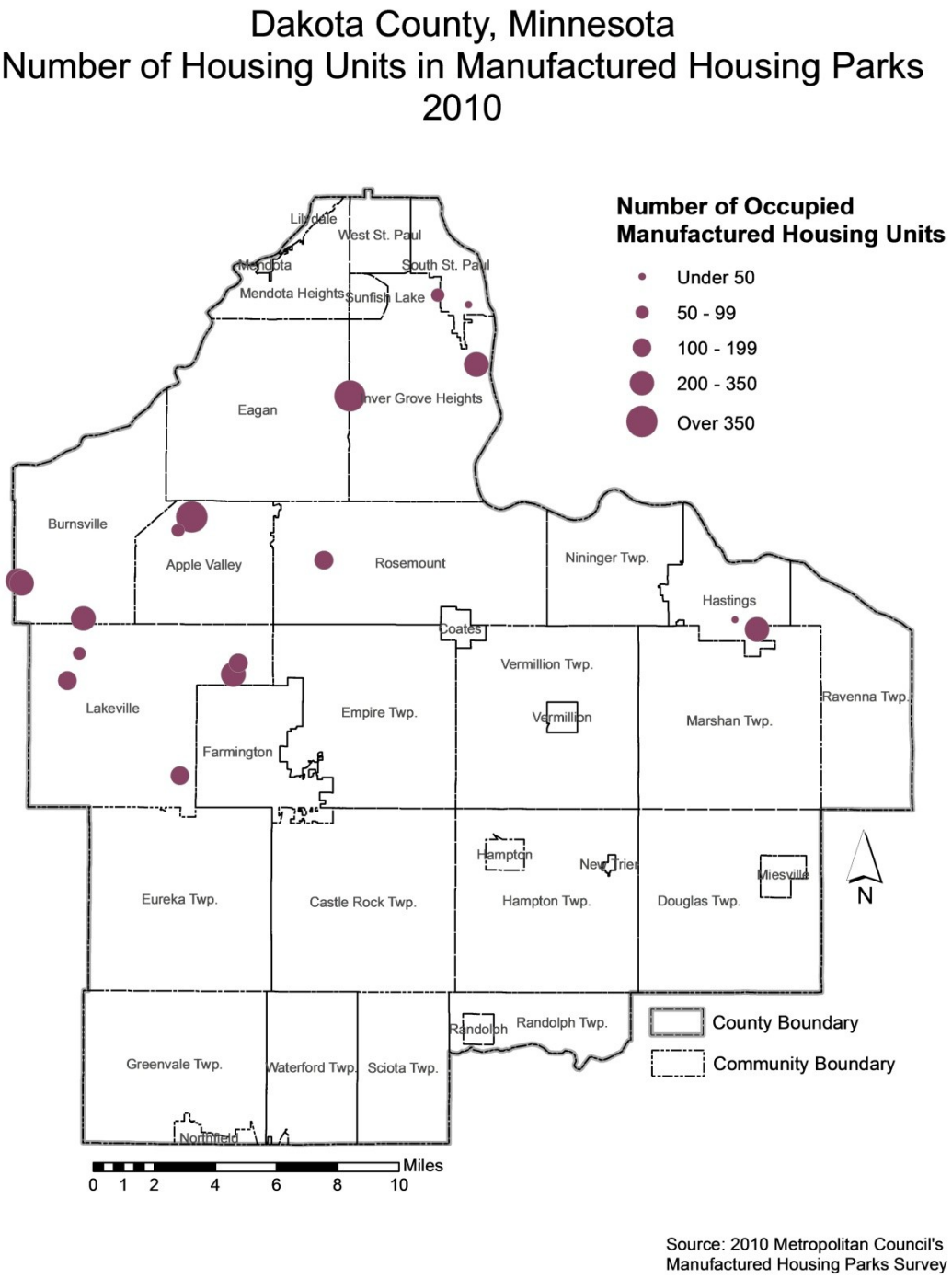


Figure 4.15: Geocoded location manufactured housing units in manufactured housing parks in Dakota County, 2010.

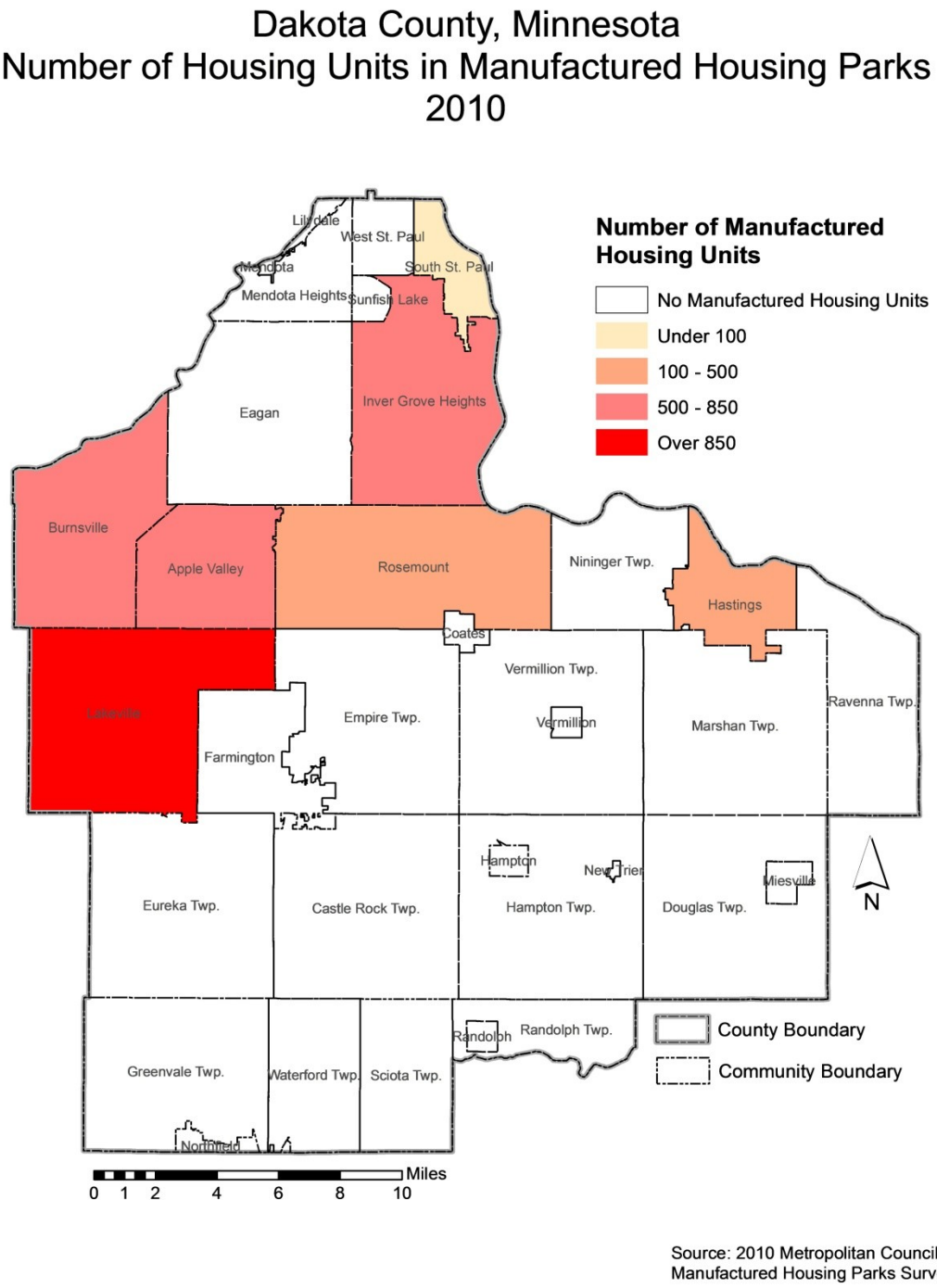


Figure 4.16: Map showing the number of manufactured housing units in manufactured housing parks in Dakota County by community, 2010.

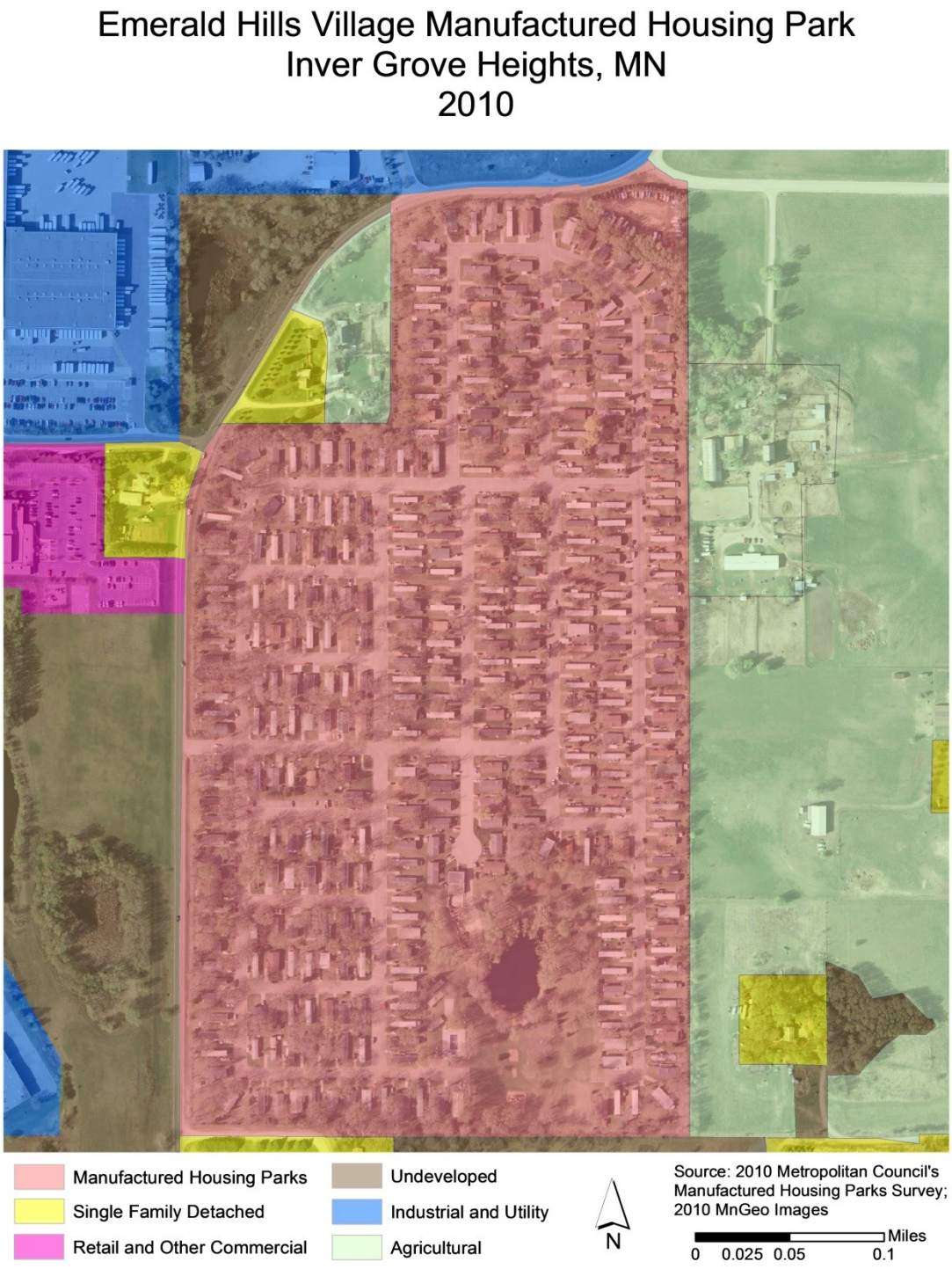


Figure 4.17: Map showing the Emerald Hills Village manufactured housing park in Inver Grove Heights, MN with neighboring land use types in 2010.

4.4 Overall Total Affordable Housing Units, 2006 and 2010

In 2006, Dakota County had approximately 130,229 occupied housing units, of which, 37,762 were considered affordable (Table 4.7). This total includes 21,472 affordable owner-occupied units, 12,639 affordable rental units, and 3,651 affordable manufactured housing units. Overall in 2006, 29.0 percent of the total housing stock was considered affordable.

In 2010, Dakota County had approximately 133,619 occupied housing units, of which 79,961 were considered affordable (Table 4.8). This total includes 60,028 affordable owner-occupied units, 16,502 affordable rental units, and 3,431 affordable manufactured housing units. Overall in 2010, 59.8 percent of the total housing stock was considered affordable.

Community	2006 Owner-Occupied Units		2006 Rental Units		2006 Manufactured Housing	Overall Numbers for 2006		
	Affordable	Total	Affordable	Units	(All are Affordable)	Affordable	Total	Percent Affordable
Apple Valley	2,573	13,298	596	2,045	542	3,711	15,885	23.4%
Burnsville	2,393	13,759	3,339	7,248	721	6,453	21,728	29.7%
Castle Rock Twp.	59	484	0	0	0	59	484	12.2%
Coates	22	45	0	0	0	22	45	48.9%
Douglas Twp.	19	270	0	0	0	19	270	7.0%
Eagan	2,721	16,580	2,498	5,758	0	5,219	22,338	23.4%
Empire Twp.	114	695	0	0	0	114	695	16.4%
Eureka Twp.	30	494	4	4	0	34	498	6.8%
Farmington	1,141	5,045	235	304	0	1,376	5,349	25.7%
Greenvale Twp.	21	268	0	0	0	21	268	7.8%
Hampton	68	193	0	0	0	68	193	35.2%
Hampton Twp.	28	325	0	0	0	28	325	8.6%
Hastings	2,419	5,645	862	1,063	340	3,621	7,048	51.4%
Inver Grove Heights	1,533	7,618	972	2,829	830	3,335	11,277	29.6%
Lakeville	1,474	14,151	514	840	999	2,987	15,990	18.7%
Lilydale	0	117	1	133	0	1	250	0.4%
Marshan Twp.	19	413	0	0	0	19	413	4.6%
Mendota	39	58	15	15	0	54	73	74.0%
Mendota Heights	46	3,441	149	374	0	195	3,815	5.1%
Miesville	22	47	0	0	0	22	47	46.8%
New Trier	30	34	0	0	0	30	34	88.2%
Nininger Twp.	24	306	0	0	0	24	306	7.8%
Northfield	65	327	0	0	0	65	327	19.9%
Randolph	81	124	4	4	0	85	128	66.4%
Randolph Twp.	19	219	0	0	0	19	219	8.7%
Ravenna Twp.	18	773	0	0	0	18	773	2.3%
Rosemount	1,226	5,630	233	244	182	1,641	6,056	27.1%
Sciota Twp.	23	138	0	0	0	23	138	16.7%
South St. Paul	3,293	5,817	664	768	37	3,994	6,622	60.3%
Sunfish Lake	0	172	0	0	0	0	172	0.0%
Vermillion	57	148	12	12	0	69	160	43.1%
Vermillion Twp.	22	418	4	4	0	26	422	6.2%
Waterford Twp.	56	193	2	2	0	58	195	29.7%
West St. Paul	1,817	4,671	2,535	3,015	0	4,352	7,686	56.6%
Dakota County Totals	**21,472**	**101,916**	**12,639**	**24,662**	**3,651**	**37,762**	**130,229**	**29.0%**

Sources: 2006 MetroGIS Parcel Dataset**;** 2006 Dakota County Community Development Agency's Rental Market Survey and 2006 HousingLink; 2006 Metropolitan Council's Manufactured Housing Parks Survey.

Table 4.7: Table showing the housing stock for Dakota County by community, 2006.

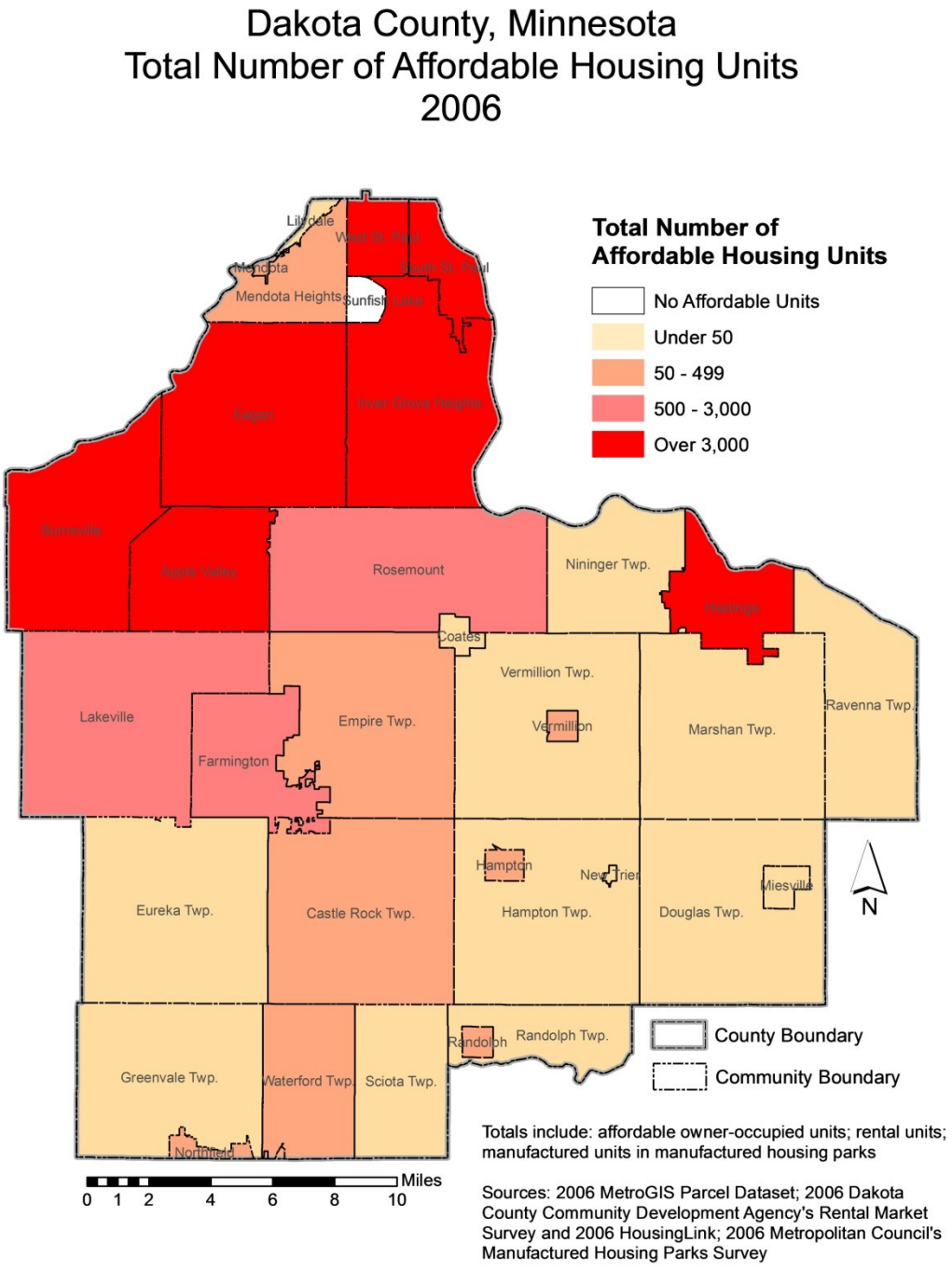


Figure 4.18: Map showing the total number of affordable housing units in Dakota County by community, 2006.

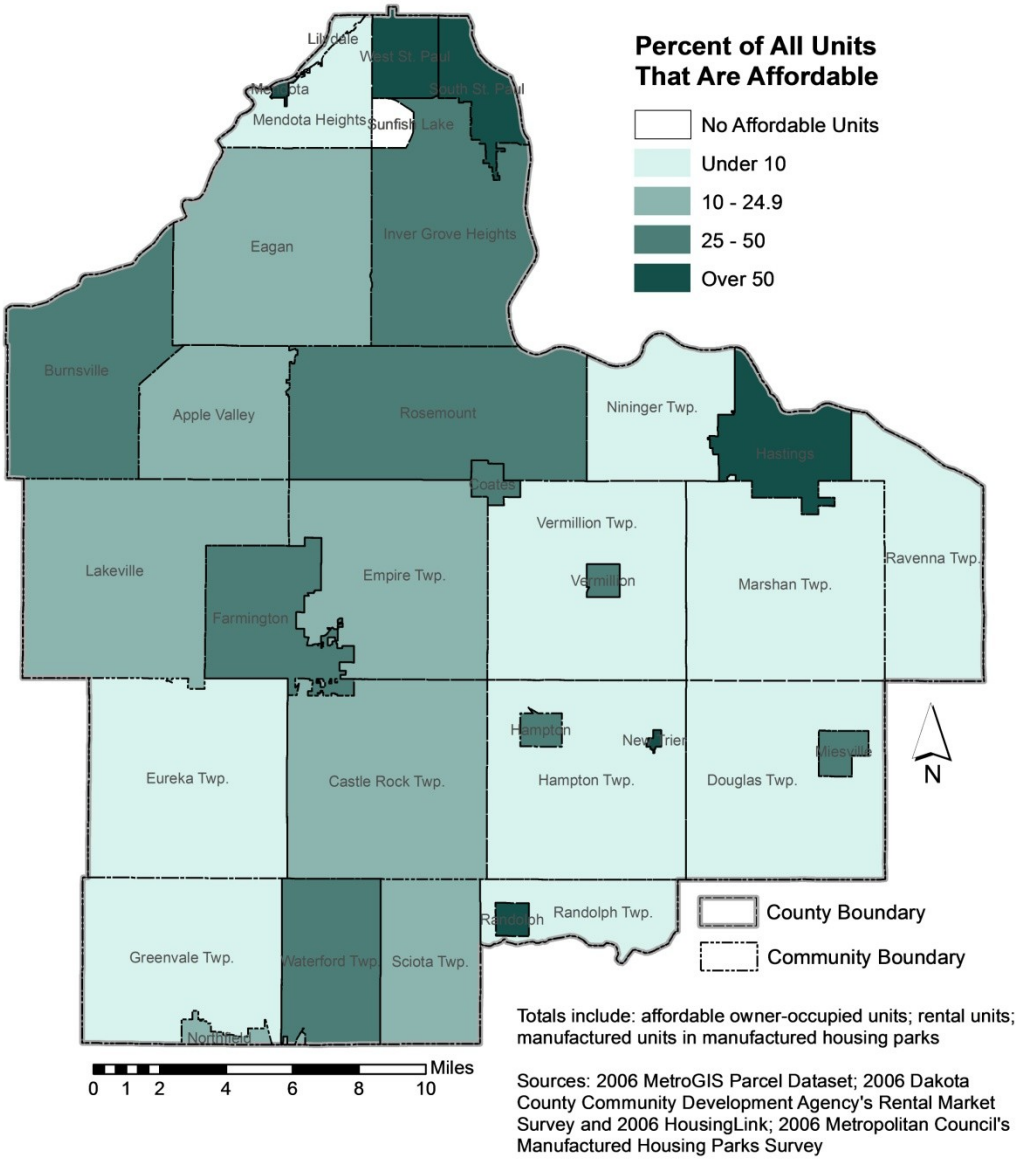


Figure 4.19: Map showing the percent of all housing units that are affordable in Dakota County by community, 2006.

Community	2010 Owner-Occupied Units		2010 Rental Units		2010 Manufactured Housing	Overall Numbers for 2010		
	Affordable	Total	Affordable	Units	(All are Affordable)	Affordable	Total	Percent Affordable
Apple Valley	7,984	13,339	988	2,478	508	9,480	16,325	58.1%
Burnsville	9,501	13,713	4,874	7,513	712	15,087	21,938	68.8%
Castle Rock Twp.	141	488	2	2	0	143	490	29.2%
Coates	39	43	0	0	0	39	43	90.7%
Douglas Twp.	52	275	0	0	0	52	275	18.9%
Eagan	7,805	16,616	3,244	5,855	0	11,049	22,471	49.2%
Empire Twp.	411	746	0	0	0	411	746	55.1%
Eureka Twp.	124	498	4	4	0	128	502	25.5%
Farmington	3,843	5,423	260	321	0	4,103	5,744	71.4%
Greenvale Twp.	60	275	0	0	0	60	275	21.8%
Hampton	178	199	27	27	0	205	226	90.7%
Hampton Twp.	65	335	0	0	0	65	335	19.4%
Hastings	4,608	5,740	1,018	1,246	298	5,924	7,284	81.3%
Inver Grove Heights	3,988	7,641	1,252	2,838	797	6,037	11,276	53.5%
Lakeville	6,823	14,868	707	1,184	897	8,427	16,949	49.7%
Lilydale	2	118	1	133	0	3	251	1.2%
Marshan Twp.	86	425	0	0	0	86	425	20.2%
Mendota	42	63	0	0	0	42	63	66.7%
Mendota Heights$	563	3,428	149	374	0	712	3,802	18.7%
Miesville	35	52	0	0	0	35	52	67.3%
New Trier	31	33	0	0	0	31	33	93.9%
Nininger Twp.	91	310	0	0	0	91	310	29.4%
Northfield	184	366	0	0	0	184	366	50.3%
Randolph	117	133	2	2	0	119	135	88.1%
Randolph Twp.	47	235	0	0	0	47	235	20.0%
Ravenna Twp.	278	778	0	0	0	278	778	35.7%
Rosemount	3,187	5,978	307	403	181	3,675	6,562	56.0%
Sciota Twp.	66	158	0	0	0	66	158	41.8%
South St. Paul	5,486	5,782	969	1,064	38	6,493	6,884	94.3%
Sunfish Lake	0	176	0	0	0	0	176	0.0%
Vermillion	130	151	8	8	0	138	159	86.8%
Vermillion Twp.	117	422	0	0	0	117	422	27.7%
Waterford Twp.	108	200	0	0	0	108	200	54.0%
West St. Paul	3,836	4,610	2,690	3,119	0	6,526	7,729	84.4%
Dakota County Totals	**60,028**	**103,617**	**16,502**	**26,571**	**3,431**	**79,961**	**133,619**	**59.8%**

Sources: 2010 MetroGIS Parcel Dataset**;** 2010 Dakota County Community Development Agency's Rental Market Survey and 2010 HousingLink; 2010 Metropolitan Council's Manufactured Housing Parks Survey

Table 4.8: Table showing housing stock for Dakota County by community, 2010.

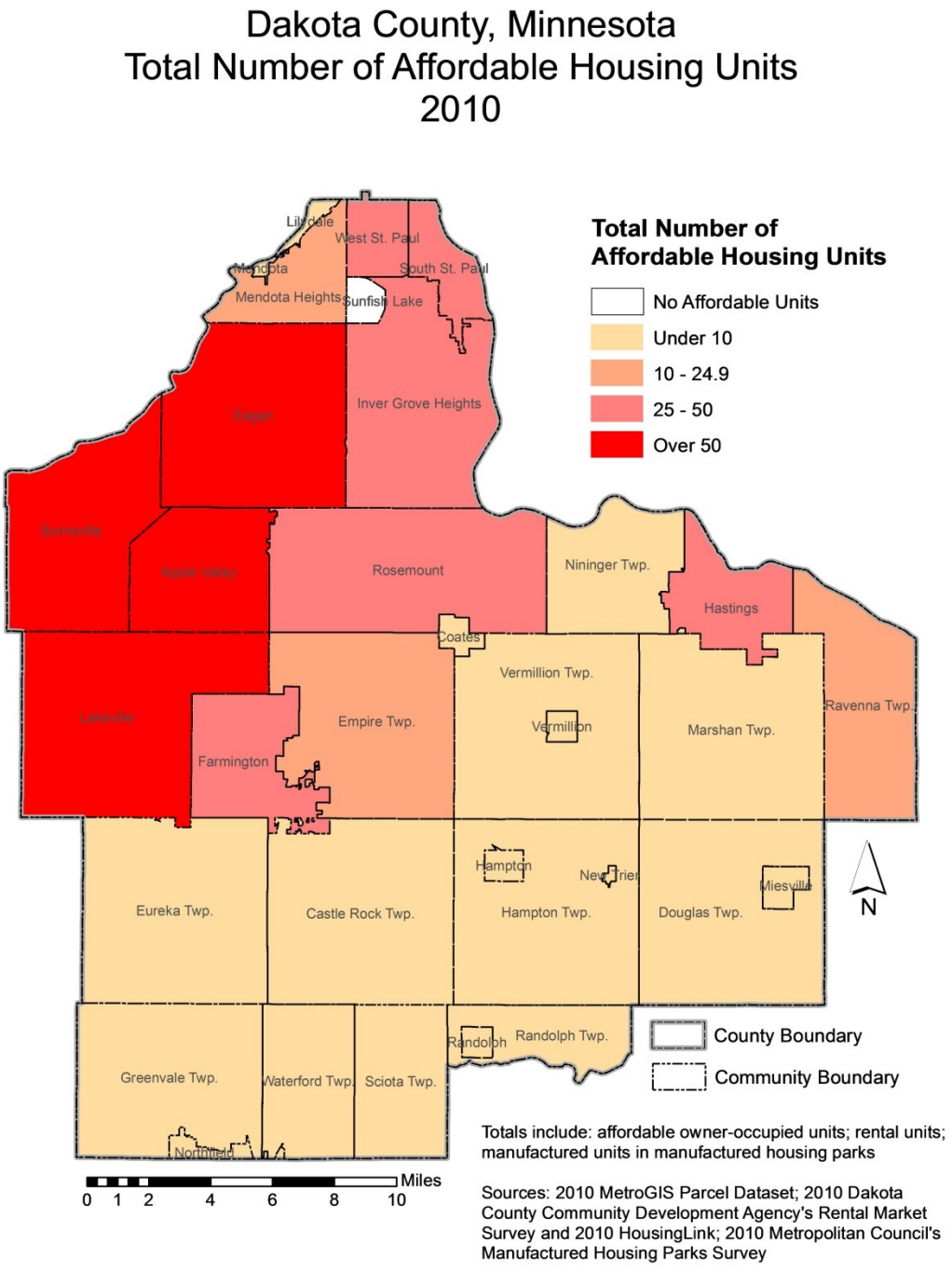


Figure 4.20: Map showing the total number of affordable housing units in Dakota County by community, 2010.

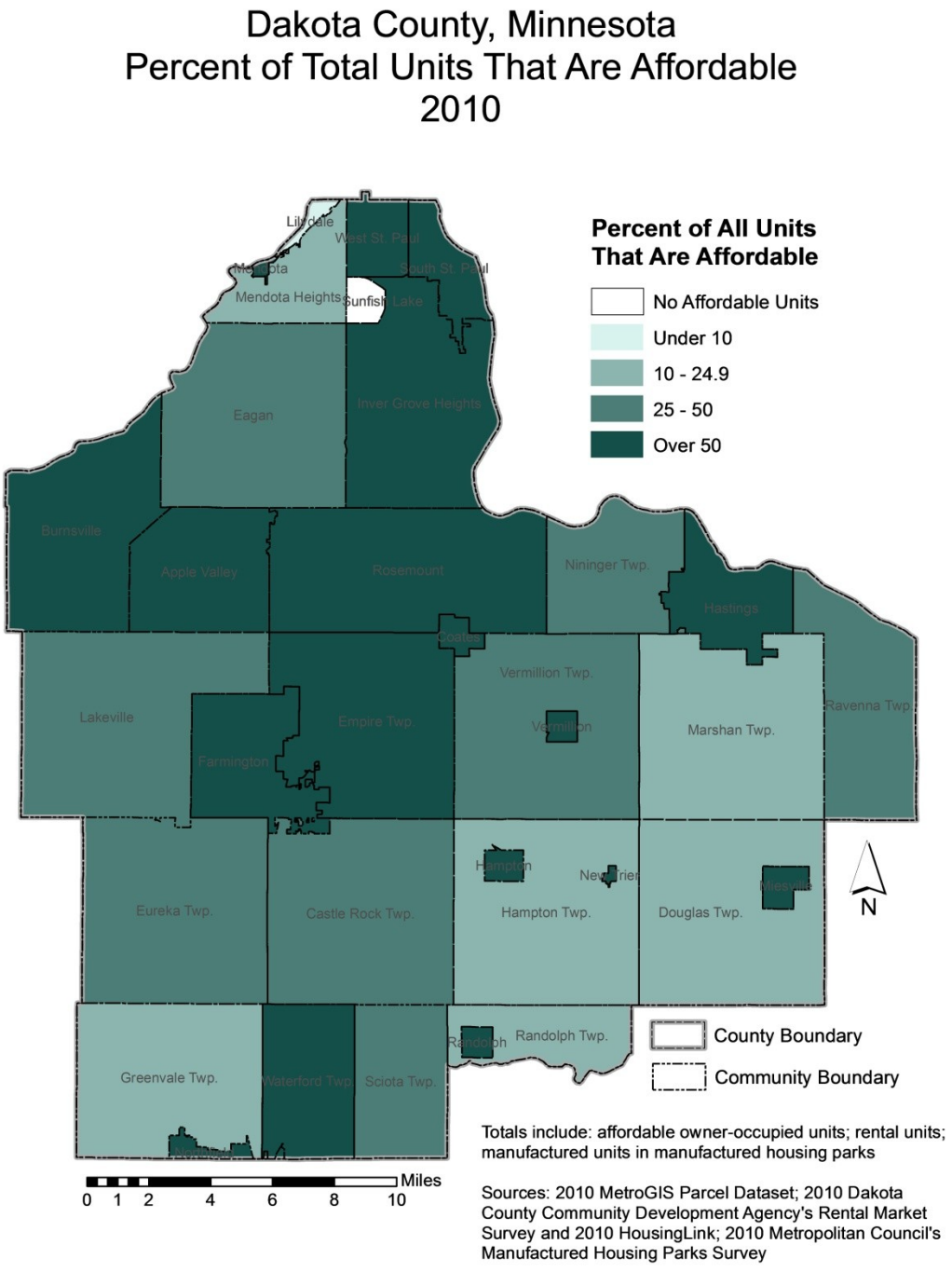


Figure 4.21: Map showing the percent of all rental housing units that are affordable in Dakota County by community, 2010.

4.5 Change in Affordable Owner-Occupied Housing Units, 2006 to 2010

Between 2006 and 2010, Dakota County gained 38,556 affordable owner-occupied housing units, from the 21,472 affordable units calculated in 2006 to the 60,028 affordable units calculated in 2010. This increase of 38,556 affordable units constituted an overall growth of almost 180 percent during this time period (Figures 4.22 and 4.23). Another way of looking at the data is to compare the affordability percentage points of each community during 2006 and 2010, and the county as a whole. In 2006, 21.1 percent of Dakota County's owner-occupied housing stock was considered affordable. In 2010, this number was 57.9 percent, so during the time period between 2006 and 2010, Dakota County's owner-occupied affordability level increased by 36.8 percentage points.

Burnsville had the highest increase in the amount of affordable owner-occupied units between 2006 and 2010 with a gain of over 7,000 units. Apple Valley, Lakeville, and Eagan all gained over 5,000 units also during this time period. Ravenna Township and Mendota Heights had the highest number of affordable unit percent change from 2006 to 2010 with well over a 1,000 percent increase for each community. Ravenna Township had 18 affordable owner-occupied units in 2006 and 278 in 2010, which was a 1,444.4 percent change. Mendota Heights had 46 affordable owner-occupied units in 2006 and 563 in 2010, which was a 1,123.9 percent change. In calculating the percentage point change between 2006 and 2010, Hampton and Burnsville had an affordability percentage point change of over 50 percent each. Hampton went from a having 35.2 percent of their owner-occupied housing stock being affordable to 89.4 percent in 2010 (percentage point increase of 54.2 percent). Burnsville went from 17.4 percent in 2006 to

69.3 percent in 2010 (percentage point increase of 51.9 percent). As was stated before, Sunfish Lake did not have any affordable owner-occupied housing units in 2006 or in 2010, and in fact, the average estimated market value for an owner occupied housing unit in Sunfish Lake was $843,449 in 2006 and $841,422 in 2010 (Tables 4.1 and 4.2). Mendota was the only community in Dakota County to lose affordable owner-occupied housing units between 2006 and 2010. Mendota had 42 affordable owner-occupied units in 2006 and 39 in 2010, which was a loss of 3 units and a percentage point decrease of 0.5 percent.

Change in Number of Affordable Owner-Occupied Parcels From 2006 to 2010

Community	2006 Affordable Parcels	2010 Affordable Parcels	Change in Affordable Parcels, 2006 to 2010	Percent Change 2006 to 2010
Apple Valley	2,573	7,984	5,411	210.3%
Burnsville	2,393	9,501	7,108	297.0%
Castle Rock Twp.	59	141	82	139.0%
Coates	22	39	17	77.3%
Douglas Twp.	19	52	33	173.7%
Eagan	2,721	7,805	5,084	186.8%
Empire Twp.	114	411	297	260.5%
Eureka Twp.	30	124	94	313.3%
Farmington	1,141	3,843	2,702	236.8%
Greenvale Twp.	21	60	39	185.7%
Hampton	68	178	110	161.8%
Hampton Twp.	28	65	37	132.1%
Hastings	2,419	4,608	2,189	90.5%
Inver Grove Heights	1,533	3,988	2,455	160.1%
Lakeville	1,474	6,823	5,349	362.9%
Lilydale	No Affordable Units	2	2	No Affordable units in 2006
Marshan Twp.	1$9	86	67	352.6%
Mendota	$39	42	3	7.7%
Mendota Heights	46	563	517	1,123.9%
Miesville	22	35	13	59.1%
New Trier	30	31	1	3.3%
Nininger Twp.	24	91	67	279.0%
Northfield	65	184	119	183.1%
Randolph	81	117	36	44.4%
Randolph Twp.	19	47	28	147.4%
Ravenna Twp.	18	278	260	1,444.4%
Rosemount	1,226	3,187	1,961	160.0%
Sciota Twp.	23	66	43	187.0%
South St. Paul	3,293	5,486	2,193	66.6%
Sunfish Lake	No Affordable Units	No Affordable Units	No Affordable Units	No Affordable Units
Vermillion	57	130	73	128.1%
Vermillion Twp.	22	117	95	431.8%
Waterford Twp.	56	108	52	92.9%
West St. Paul	1,817	3,836	2,019	111.1%
Dakota County Total	**21,472**	**60,028**	**38,556**	**179.6%**

For 2006 data, affordability is defined as having an Estimated Market Value of $201,800 or under.
For 2010 data, affordability is defined as having an Estimated Market Value of $233,100 or under.
Residential units must be Homesteaded and have a house located on the property.
Sources: 2006 and 2010 MetroGIS Parcel Dataset.

Table 4.9: Table showing the change in affordable owner-occupied housing from 2006 to 2010 in Dakota County by community.

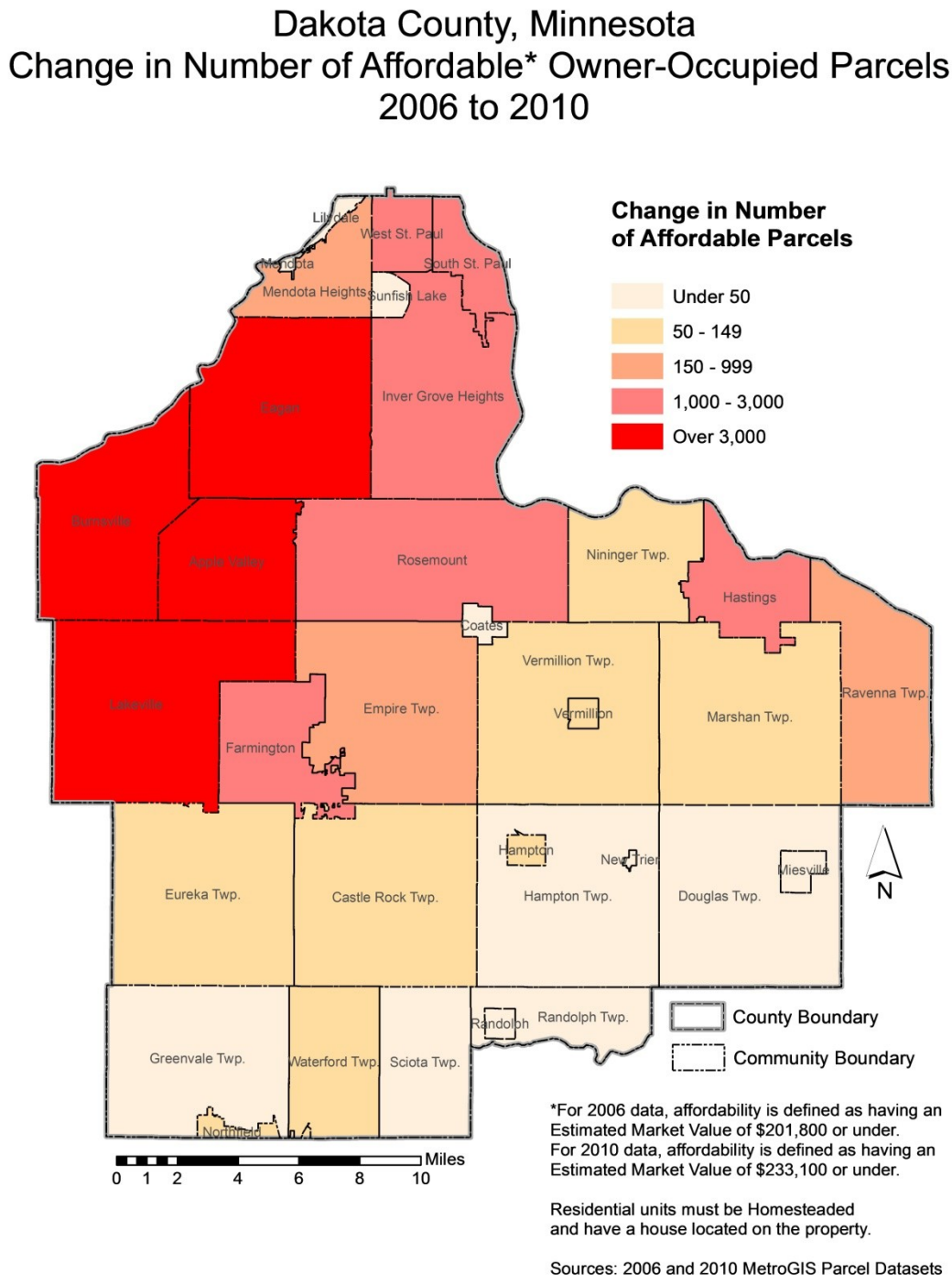


Figure 4.22: Map showing the change in the number of affordable owner-occupied housing units from 2006 to 2010 in Dakota County by community.

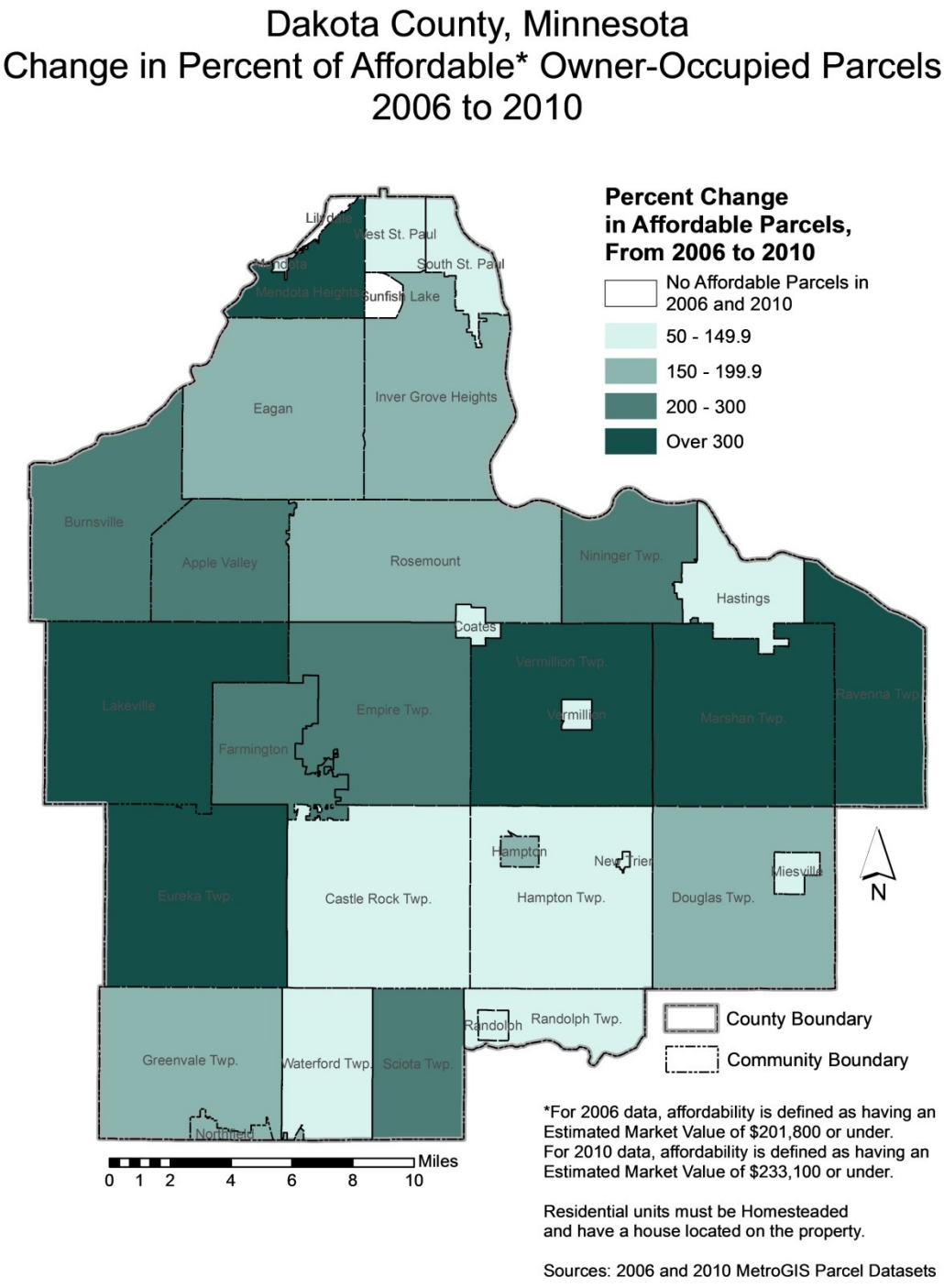


Figure 4.23: Map showing the change in affordable owner-occupied housing units by percent increase from 2006 to 2010 in Dakota County by community.

4.6 Change in Rental Housing Units, 2006 to 2010

The net change of the total number of rental housing units in Dakota County from 2006 to 2010 was a gain of almost 2,000 rental housing units (1,909 actual units). Over this time period, there was also a net gain of almost 4,000 affordable rental housing units (3,865 actual units), which was over double the amount of actual rental units added between 2006 and 2010 (Table 4.10). This would be an indication that rental units were more affordable in 2010 than in 2006, whereby many of the existing rental units changed from unaffordable to affordable from 2006 to 2010. Overall, there was an increase in rental affordability during this time period of almost 31 percent. The use of subsidies also increased from 2006 to 2010, with an increase of 258 tax credit and project based subsidized units (26 percent increase), and an increase of 565 tenant based subsidized units (22 percent increase).

Looking at the overall increase in number of affordable rental units by community, Burnsville had the highest gain with 1,535 affordable rental units added. This was a 66 percent increase in the number of affordable rental units, with Burnsville and South St. Paul both having an increase of around 46 percent. In calculating the 2006 to 2010 percentage point difference by community, Burnsville had an 18.8 percentage point increase, while Eagan (12.0 percentage point difference) and Apple Valley (10.8 percentage point difference) had the next highest. Five communities decreased their amount of affordable rental housing from 2006 to 2010. These communities were Mendota, Randolph, Vermillion, Vermillion Township, and Waterford Township. These

communities all have small populations and the total number of affordable rental units lost was a combined 27 affordable rental units.

Change in Affordable* Rental Units
2006 to 2010

Community	2006 Total Rental Units	2006 Affordable Rental Units	2010 Total Rental Units	2010 Affordable Rental Units	2006-2009 Change In Affordable Rental	Percent Change
Apple Valley	2,045	596	2,478	988	392	65.8%
Burnsville	7,248	3,339	7,513	4,874	1,535	46.0%
Castle Rock Twp.	-	-	2	2	2	No Units, 2006
Coates	-	-	-	-	-	No Units
Douglas Twp.	-	-	-	-	-	No Units
Eagan	5,758	2,498	5,855	3,244	746	29.86%
Empire Twp.	-	-	-	-	-	No Units
Eureka Twp.	4	4	4	4	-	0.0%
Farmington	304	235	321	260	25	10.64%
Greenvale Twp.	-	-	-	-	-	No Units
Hampton	-	-	27	27	27	No Units, 2006
Hampton Twp.	-	-	-	-	-	0.0%
Hastings	1,063	862	1,246	1,018	156	18.1%
Inver Grove Heights	2,829	972	2,838	1,252	280	28.8%
Lakeville	840	514	1,184	707	193	37.6%
Lilydale	133	1	133	1	1	100.0%
Marshan Twp.	-	-	-	-	-	No Units
Mendota	15	15	-	-	(15)	-100.0%
Mendota Heights	374	149	374	149	-	0.0%
Miesville	-	-	-	-	-	No Units
New Trier	-	-	-	-	-	No Units
Nininger Twp.	-	-	-	-	-	No Units
Northfield	-	-	-	-	-	No Units
Randolph	4	4	2	2	(2)	-50.0%
Randolph Twp.	-	-	-	-	-	No Units
Ravenna Twp.	-	-	-	-	-	No Units
Rosemount	244	233	403	307	74	31.7%
Sciota Twp.	-	-	-	-	-	No Units
South St. Paul	768	664	1,064	969	305	45.9%
Sunfish Lake	-	-	-	-	-	No Units
Vermillion	12	12	8	8	(4)	-33.3%
Vermillion Twp.	4	4	-	-	(4)	-100.0%
Waterford Twp.	2	2	-	-	(2)	-100.0%
West St. Paul	3,015	2,535	3,119	2,690	155	6.1%
Dakota County Total	**24,662**	**12,639**	**26,571**	**16,502**	**3,865**	**30.6%**

*Affordable includes project based subsidies, tenant based subsidies, and market-rate affordable rental units.

Sources: 2006 and 2010 Dakota County Community Development Agency's Rental Market Survey and 2006 and 2010 HousingLink.

Table 4.10: Table showing the change in affordable rental units from 2006 to 2010 in Dakota County by community.

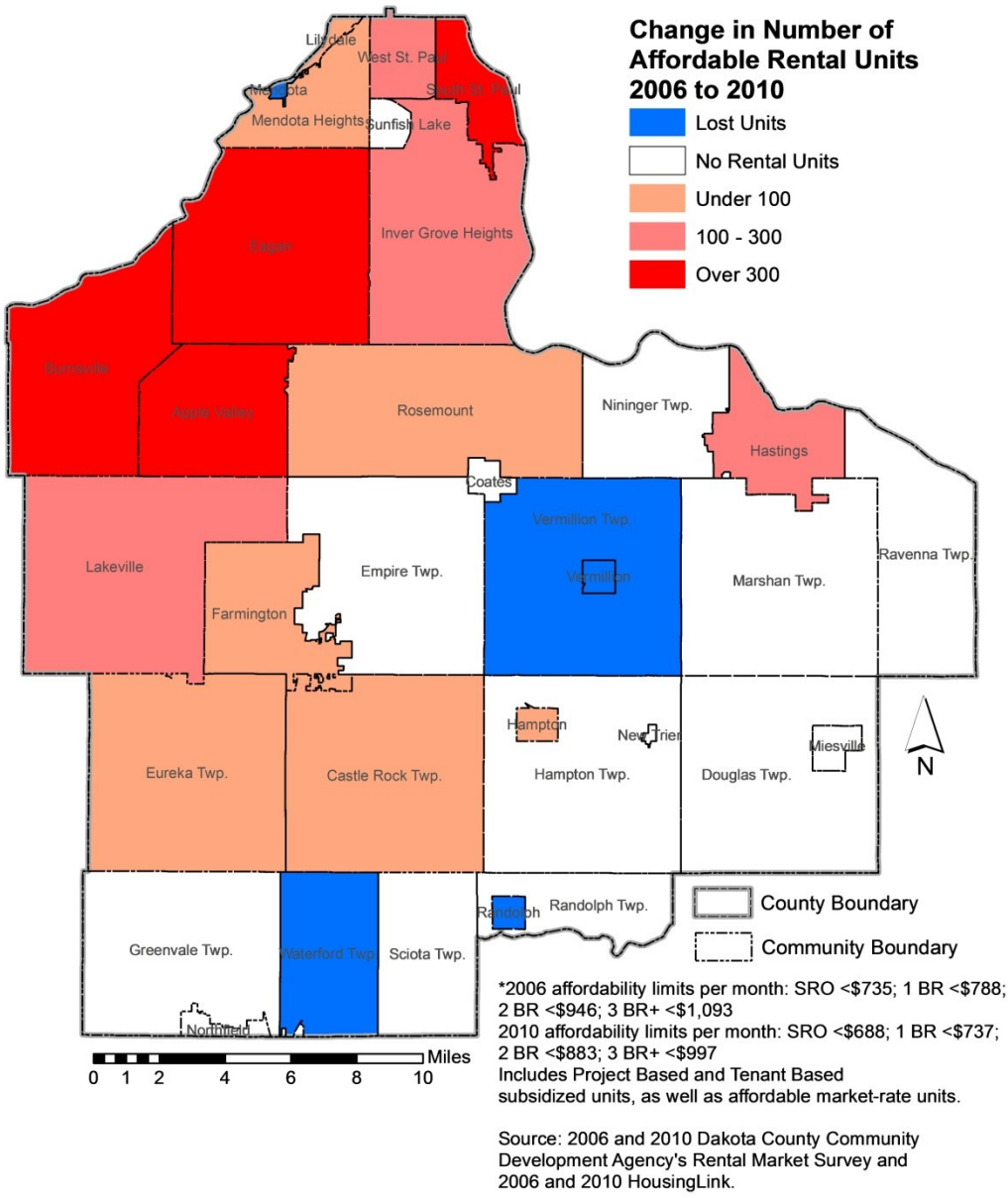


Figure 4.24: Map showing the change in number of affordable rental units from 2006 to 2010 in Dakota County by community.

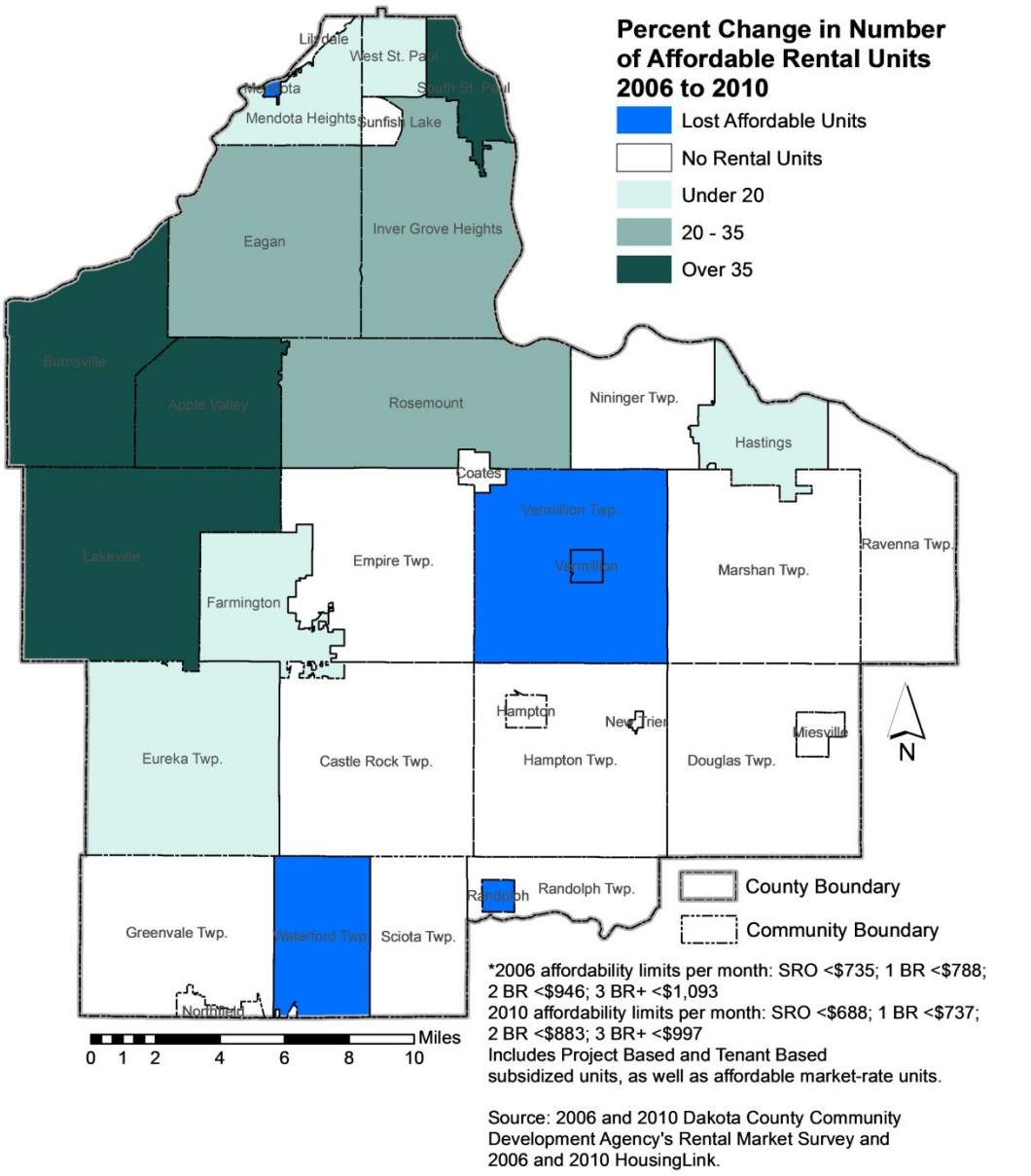


Figure 4.25: Map showing the percent change in affordable rental units from 2006 to 2010 in Dakota County by community.

4.7 Change in Manufactured Housing Units in Manufactured Housing Parks, 2006 to 2010

The number of manufactured housing units in manufactured housing parks decreased by 220 units from 2006 to 2010 (Table 4.11). This was a 6 percent decrease over this time period. As stated before, all manufactured housing units in manufactured housing parks are considered affordable. Six of the 7 communities that had manufactured housing parks within their boundaries lost units from 2006 to 2010, and the one community that gained units (South St. Paul) only increased by 1 unit during this time period. Lakeville lost the most manufactured housing units (102), while Hastings lost more than 40 units (42), and Apple Valley (34 units) and Inver Grove Heights (33 units) lost more than 30 units.

As stated before, the number of manufactured housing parks has been gradually decreasing over time, and the chances of a new manufactured housing park being opened are very slim. This housing type is not popular with communities due to the fact that they don't have the taxable revenue of other housing types. Oftentimes manufactured housing parks are located next to industrial areas or undeveloped land, as can be seen in figure 4.17, whereby mass transit is not seen as an option for manufactured housing park residents. As the numbers related to manufactured housing parks in Dakota County have shown during the 2006 to 2010 time period, a great source of affordable housing is being lost and will probably continue to do so in the future.

Change in Manufactured Housing in Manufactured Housing Parks, 2006 to 2010

Community	Name of Manufactured Housing Park	Change in Spaces	Change in Units	Change in Occupied Units	Percentage Change in Number of Units
Apple Valley	Apple Valley Estates	1	-20	-11	-19.0%
Apple Valley	Cedar Knolls Mobile Home Community	1	-14	-13	-3.2%
Burnsville	Arbor Vista	0	-16	-27	-5.5%
Burnsville	Rambush Estates	0	14	5	6.7%
Burnsville	Sunny Acres Mobile Home Park	0	-7	-2	-3.2%
Hastings	Hastings Mobile Home Terrace	-1	-3	-1	-7.9%
Hastings	Three Rivers Mobile Home Park	0	-39	-37	-12.9%
Inver Grove Heights	Emerald Hills Village	0	-1	-9	-0.3%
Inver Grove Heights	Skyline Village Mobile Home Park	1	-32	-38	-8.5%
Inver Grove Heights	Southridge	0	0	-6	0.0%
Lakeville	Ardmor Village	0	-88	-16	-33.2%
Lakeville	Connelly's Mobile Home Park	-1	6	8	11.5%
Lakeville	Country View Manufactured Home Community	0	-23	-2	-6.2%
Lakeville	North Creek Manufactured Housing Community	0	-5	-8	-3.1%
Lakeville	Queen Anne Courts	0	8	5	5.4%
Rosemount	Rosemount Woods	0	-1	-1	-0.5%
South St. Paul	Healy Mobile Home Park	0	1	1	2.7%
Dakota County Totals		**1**	**-220**	**-152**	**-6.0%**

Sources: 2006 and 2010 Metropolitan Council's Manufactured Housing Parks Survey

Table 4.11: Change in Manufactured Housing data in Manufactured Housing Parks from 2006 to 2010 in Dakota County by community.

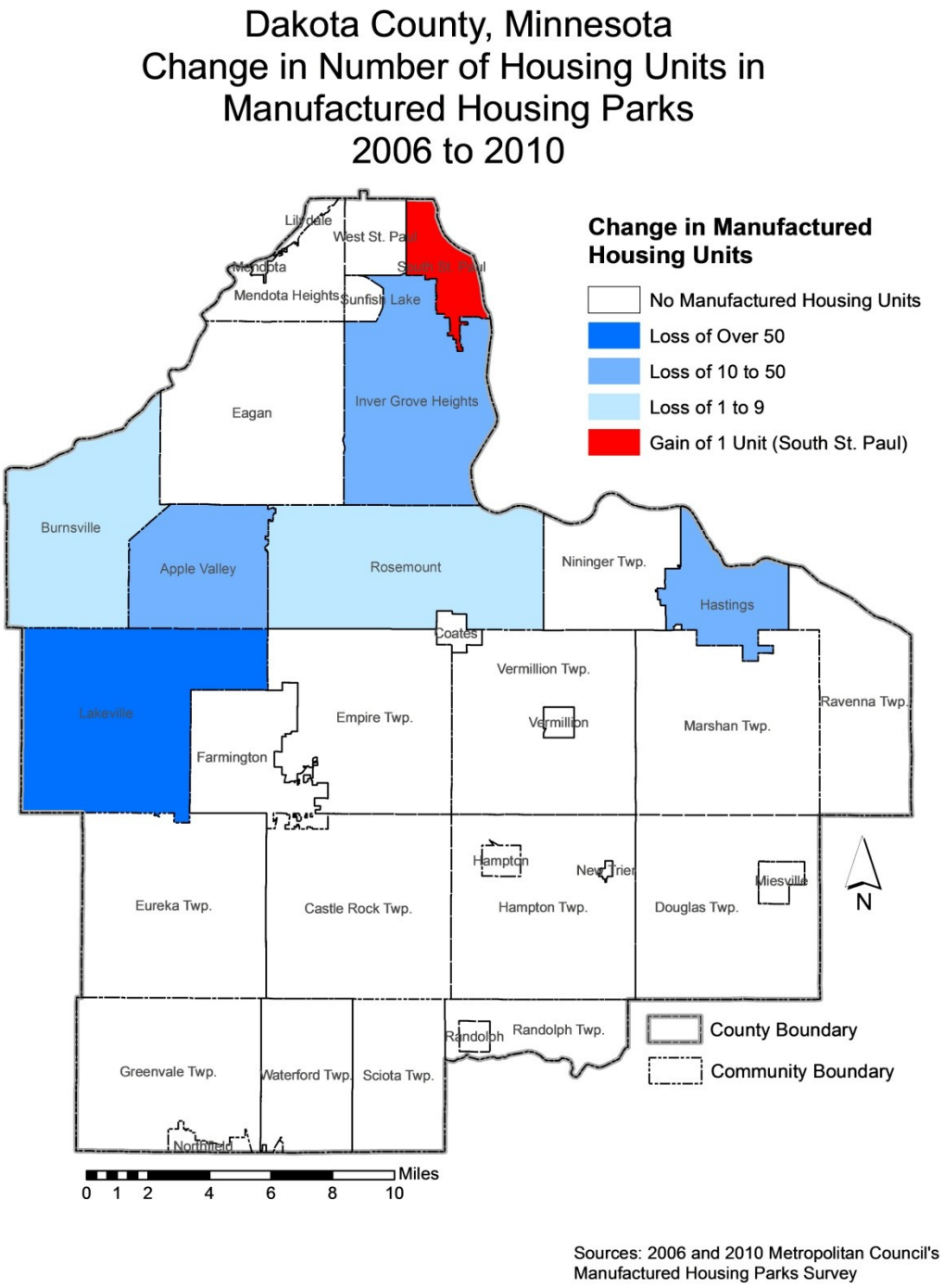


Figure 4.26: Map showing the change in number of housing units in manufactured housing parks from 2006 to 2010 in Dakota County by community.

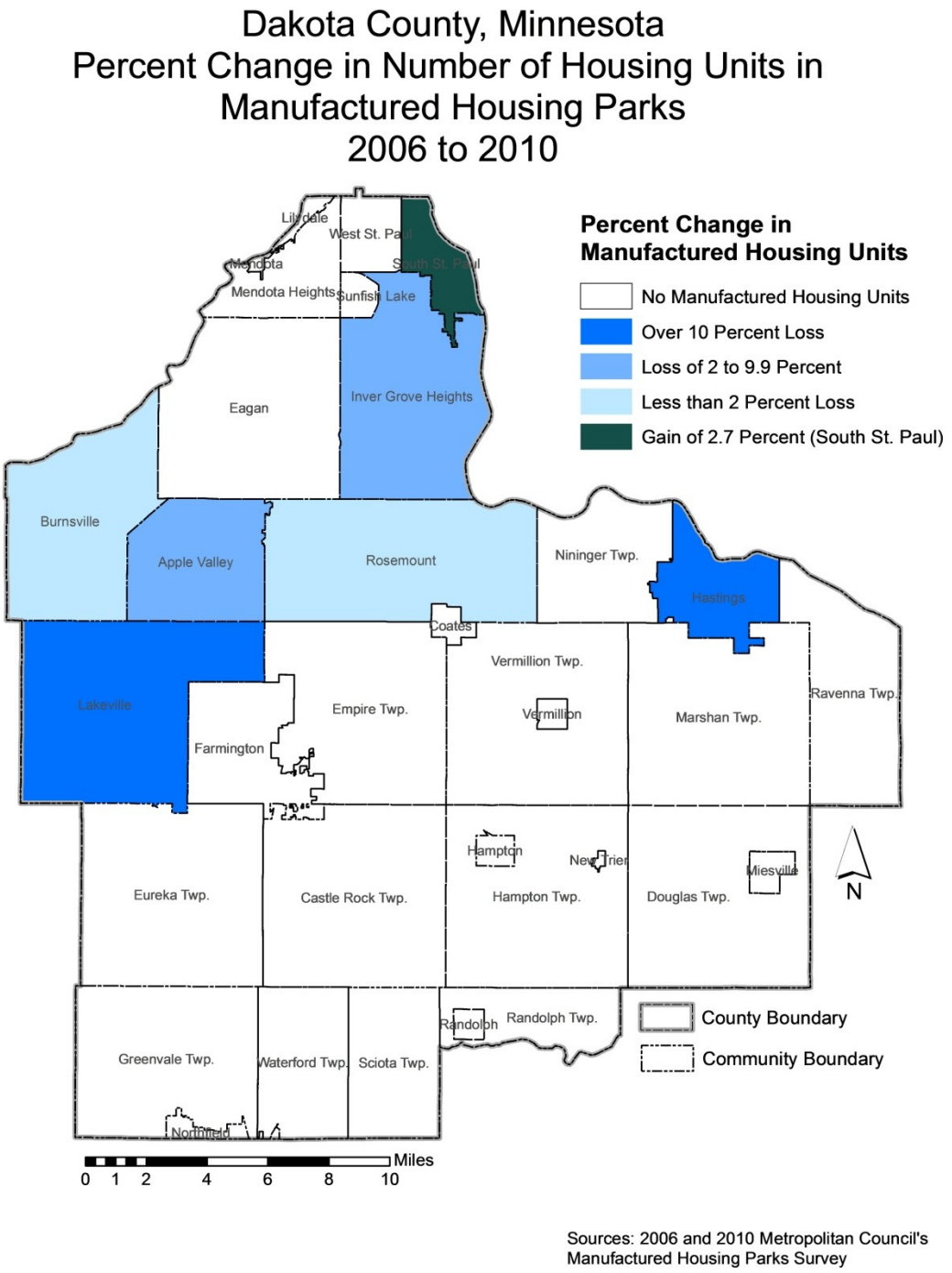


Figure 4.27: Map showing the percent change in housing units in manufactured housing parks from 2006 to 2010 in Dakota County by community.

4.8 Overall Change in Total Affordable Housing Units, 2006 to 2010

Overall in 2006, combining owner-occupied units, rental units, and manufactured housing units, the total number of residential units in Dakota County was 130,229 housing units. This number includes: 101,916 owner-occupied units; 24,662 rental units; and 3,651 manufactured housing units. Of these 130,229 units, 37,762 were considered affordable, which calculates to 29.0 percent of all the residential units being affordable (Table 4.12).

Overall in 2010, combining owner-occupied units, rental units, and manufactured housing units, the total number of residential units in Dakota County was 133,619 housing units. This number includes: 103,617 owner-occupied units; 26,571 rental units; and 3,431 manufactured housing units. Of these 133,619 units, 79,961 were considered affordable, which calculates to 59.8 percent of all the residential units being affordable.

Using the numbers stated before, Dakota County increased its overall number of affordable housing units by 42,199 from 2006 to 2010. This was a 30.8 percentage point increase from 2006 to 2010. The county had increases in affordable owner-occupied housing units (38,556 units), affordable rental units (3,863 units), but had a decrease in the number of manufactured housing units (loss of 220 units).

Burnsville had the highest increase in number of affordable units from 2006 to 2010, with 8,634 affordable housing units added. Eagan (5,830 units), Apple Valley (5,769 units), and Lakeville (5,440 units) all had an increase of over 5,000 affordable

housing units during this time period. Sunfish Lake did not have any affordable housing units in either of the years being studied and Mendota actually lost 12 affordable housing units from 2006 to 2010.

Hampton had the highest percentage point increase from 2006 to 2010, at a 55.5 percent increase. Farmington (45.7 percent increase), Vermillion (43.7 percent increase), and Coates (41.8 percent increase) all had increases of over 40 percent. As stated before, Sunfish Lake did not have any affordable units in this time series and Mendota had a percentage point decrease of 7.3 percent.

Change in Number of Units, 2006 to 2010

	Owner-Occupied Units		Rental Units		Manufactured Housing	Overall Change	
Community	**Affordable**	**Pct. Point Change**	**Affordable**	**Pct. Point Change**	**(All are Affordable)**	**Affordable**	**Pct. Point Change**
Apple Valley	5,411	40.6%	392	10.8%	-34	5,769	34.7%
Burnsville	7,108	51.9%	1,535	18.8%	-9	8,634	39.1%
Castle Rock Twp.	82	17.0%	2	N/A	0	84	17.0%
Coates	17	41.8%	0	N/A	0	17	41.8%
Douglas Twp.	33	11.8%	0	N/A	0	33	11.9%
Eagan	5,084	30.6%	746	12.0%	0	5,830	25.8%
Empire Twp.	297	38.7%	0	N/A	0	297	38.7%
Eureka Twp.	94	18.8%	0	0.0%	0	94	18.7%
Farmington	2,702	48.3%	25	3.7%	0	2,727	45.7%
Greenvale Twp.	39	13.9%	0	N/A	0	39	14.0%
Hampton	110	54.2%	27	N/A	0	137	55.5%
Hampton Twp.	37	11.0%	0	N/A	0	37	10.8%
Hastings	2,189	37.5%	156	0.6%	-42	2,303	29.9%
Inver Grove Heights	2,455	32.1%	280	9.7%	-33	2,702	23.9%
Lakeville	5,349	35.5%	193	-1.5%	-102	5,440	31.0%
Lilydale	2	N/A	0	0.0%	0	2	0.8%
Marshan Twp.	67	15.6%	0	N/A	0	67	15.6%
Mendota	3	-0.5%	-15	N/A	0	-12	-7.3%
Mendota Heights	517	15.1%	0	0.0%	0	517	13.6%
Miesville	13	20.5%	0	N/A	0	13	20.5%
New Trier	1	5.7%	0	N/A	0	1	5.7%
Nininger Twp.	67	21.5%	0	N/A	0	67	21.6%
Northfield	119	30.4%	0	N/A	0	119	30.4%
Randolph	36	22.7%	-2	0.0%	0	34	21.7%
Randolph Twp.	28	11.3%	0	N/A	0	28	11.3%
Ravenna Twp.	260	33.6%	0	N/A	0	260	33.4%
Rosemount	1,961	31.5%	74	-19.3%	-1	2,034	28.9%
Sciota Twp.	43	25.7%	0	N/A	0	43	25.1%
South St. Paul	2,193	38.3%	305	4.6%	1	2,499	34.0%
Sunfish Lake	0	N/A	0	N/A	0	0	0.0%
Vermillion	73	47.6%	-4	0.0%	0	69	43.7%
Vermillion Twp.	95	22.9%	-4	N/A	0	91	21.5%
Waterford Twp.	52	25.2%	-2	N/A	0	50	24.3%
West St. Paul	2,019	44.3%	155	2.1%	0	2,174	27.8%
Dakota County Totals	**38,556**	**36.8%**	**3,863**	**10.9%**	**-220**	**42,199**	**30.8%**

Sources: 2006 and 2010 MetroGIS Parcel Dataset, 2006 and 2010 Dakota County Community Development Agency's Rental Market Survey, 2006 and 2010 HousingLink data; 2006 and2010 Metropolitan Council's Manufactured Housing Parks Survey

Table 4.12: Table showing change in affordable housing stock between 2006 and 2010 for Dakota County by community.

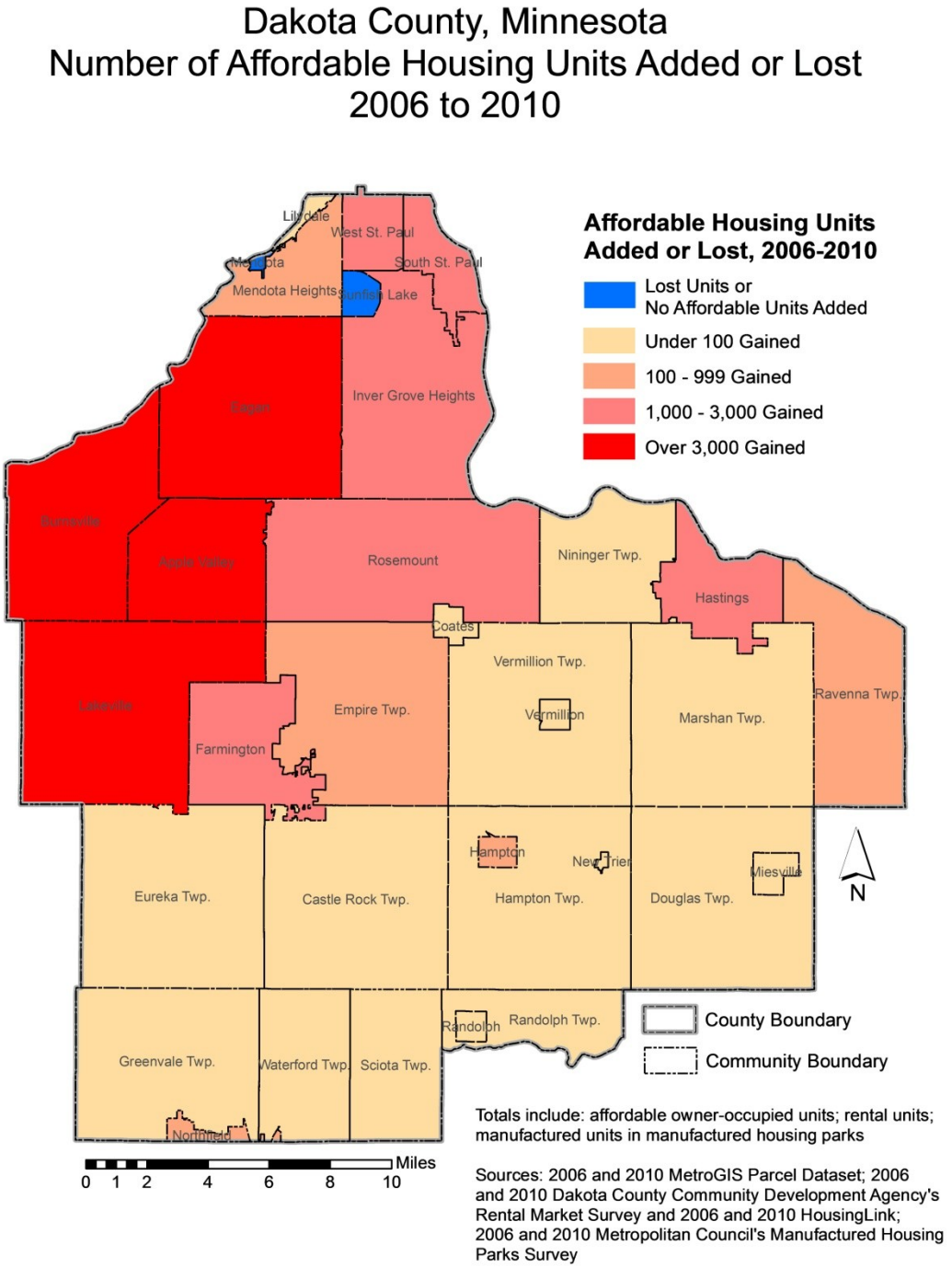


Figure 4.28: Map showing the change in the total number of affordable housing units from 2006 to 2010 in Dakota County by community.

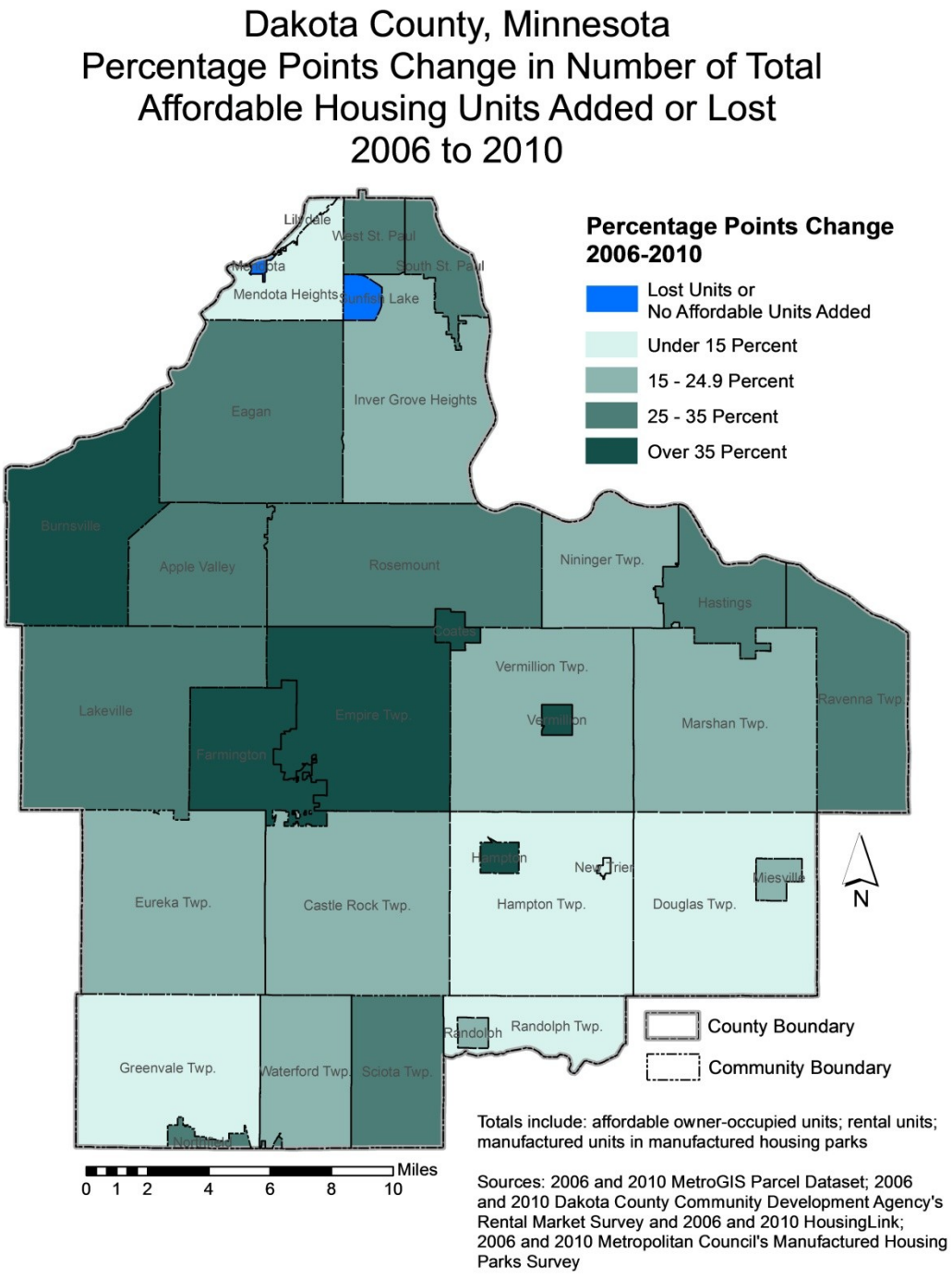


Figure 4.29: Map showing the percentage points change in affordable housing units from 2006 to 2010 in Dakota County by community.

5. CONCLUSIONS

5.1 Summary of Study

In summary, this thesis details the location and amount of affordable housing in Dakota County, Minnesota for the years 2006 and 2010, and the change between these two years. As was outlined before, home values in the Twin Cities doubled between 1996 and 2006, but bottomed out in 2010. Based on these details, the assumption can be made that housing should be more affordable in 2010 than in 2006. The results of this study confirm this assumption. This thesis analyzed housing related to owner-occupied, rental, and manufactured housing stock. In 2006, 29.0 percent of all housing units were considered affordable. In 2010, this jumped to 59.8 percent, which was a percentage point increase of 30.8 percent. It is important to note that these numbers are not actual housing units being added to Dakota County, but fluctuations in the price of existing housing stock from 2006 to 2010.

Many of the larger communities (more population and households) had large increases in overall number of affordable housing, and many smaller communities (less population and households) had higher percentage of increase in affordable housing. Burnsville led the county in an increase of 8,634 affordable units, while Hampton had the highest increase in percentage points from the percent of units affordable in 2006 to the percent of units affordable in 2010, 55.5 percent.

5.2 Benefits of Study

The data results from this study show the location and number of affordable housing units in Dakota County from 2006 to 2010 and the changes between these years. Although this data series works within the confines of the" housing bubble" in tracking the highs and lows of housing values during this turbulent time, the data provide a baseline for further studies in the area of housing research. It provides a snapshot in time during these years but it also provides a foundation of data that can be replicated in the future. Further research would be fairly straightforward with a majority of issues related to incomplete and compatible data sources being resolved. The datasets utilized in this study are updated yearly and could provide a variety of research studies related to housing affordability.

There are various datasets that contain information about housing in general. Most obvious are the datasets the U.S. Census Bureau produces, including the American Community Survey and Decennial Census information. As stated before, these data sources are self reported and don't include professional assessing of an estimated sales price like the assessors in every county have.

5.3 Limitations of Study

The data acquired from this study provide useful information, but there are limitations. One limitation is that the Rental Market Survey from the Dakota County CDA only captures rental units that have four or more units in the complex or building. While a majority of the rental units are surely captured, there may be a small amount of rental stock that is not being captured.

Another limitation is that only homesteaded units are captured from the owner-occupied housing parcel dataset. There may be instances where a non-homesteaded unit is being rented out due to the owner not being able to sell the unit. The owner may be "underwater" on the unit, meaning they owe more than the unit is worth, and are renting it out to make money. In either case, the unit will not be captured with the data sources used for this study.

6. POSSIBILITIES FOR RELATED STUDIES

Many elements related to this thesis study could be used in other studies related to housing prices in Dakota County. As stated before, 2006 was a landmark year in the "housing bubble" cycle in which housing prices skyrocketed to never seen before levels. In 2010, these levels became historically low when the bubble burst. Using this time series and the final housing data included in the study could lead to opportunities in further studies.

One possibility for a follow-up study would be a real-estate study involving the sales price of owner-occupied housing units. Using the sales price, parcels within certain geographies, such as Census Block Groups (Figures 5.1 and 5.2), could be analyzed and compared to the estimated market value in the same geography. The actual data and the visual display of the data in a map format would be beneficial to a real estate agent or other professionals in the real estate field. Using the actual sales data compared to the estimated market value, the user could see where there are areas of high sales (hotspots) related to what the estimated market value displays. If the estimated market value map shows lower values than the actual sales map, it could be inferred that this is an area where home buyers are interested in, and can expect rising home values in the area. Figure 5.1 shows the change in home sales prices from 2006 to 2010. What this map illustrates is that a majority of Dakota County lost a great deal of value in residential housing value between 2006 and 2010. When looking at houses that were bought in 2006 and purchased again in 2010 (the same home is in both datasets), the damage is even

more dramatic (Figure 5.2). The possibility for this study could be replicated at the Twin Cities level also (Figure 5.3).

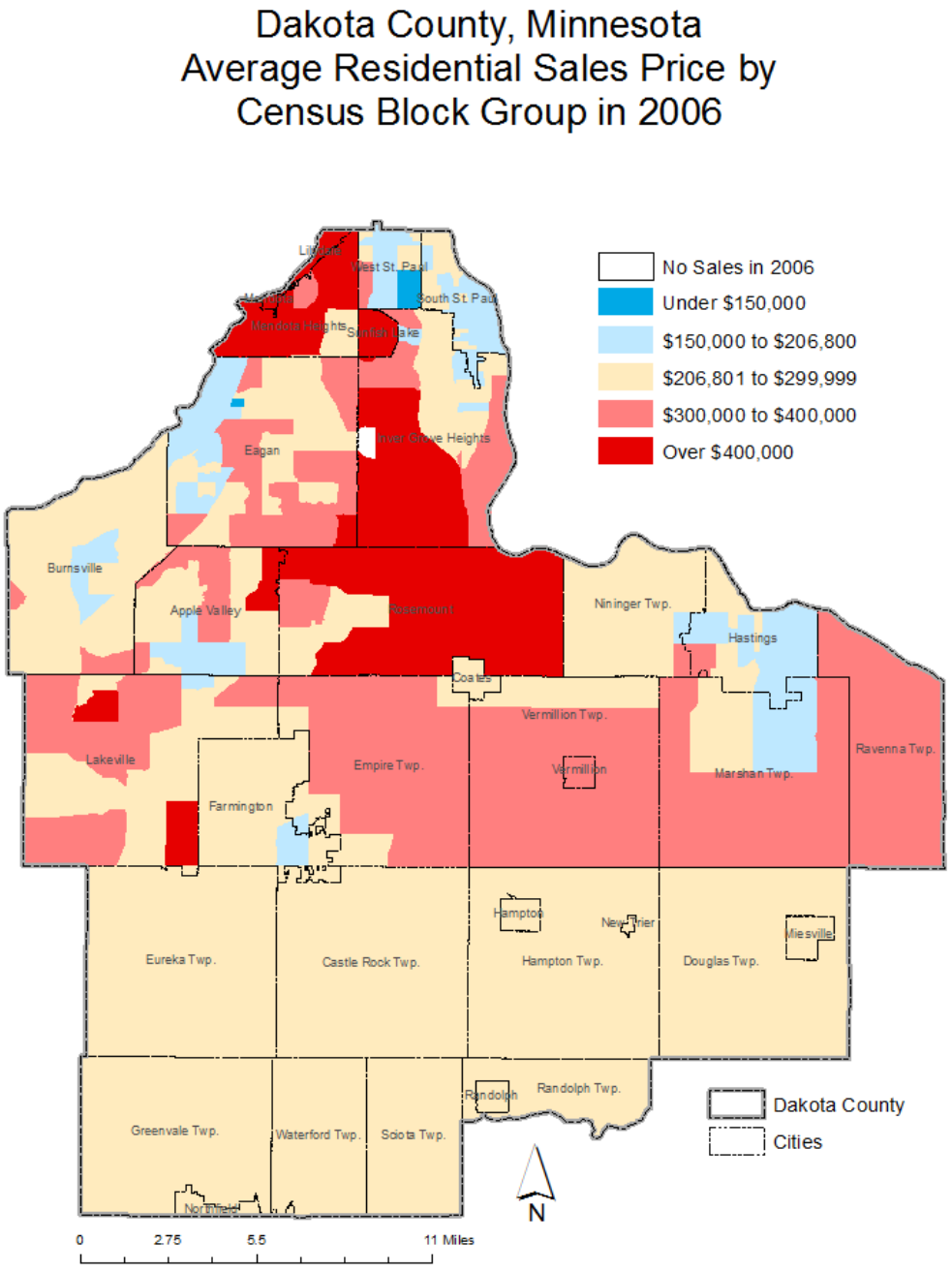


Figure 5.1: Average residential sales price by Census block group in Dakota County, 2006

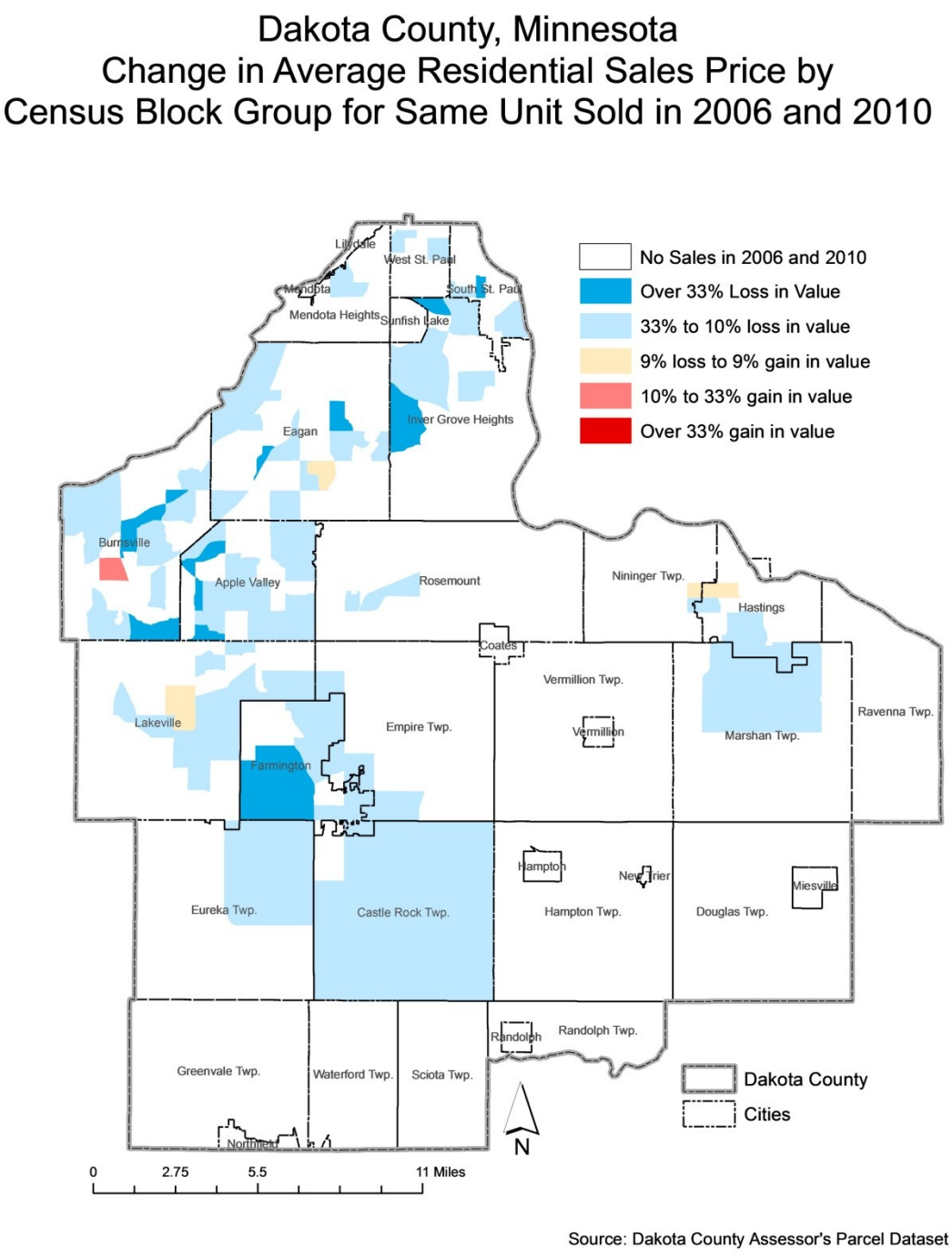


Figure 5.2: Change in average residential sales price by Census block group from 2006 to 2010 in Dakota County.

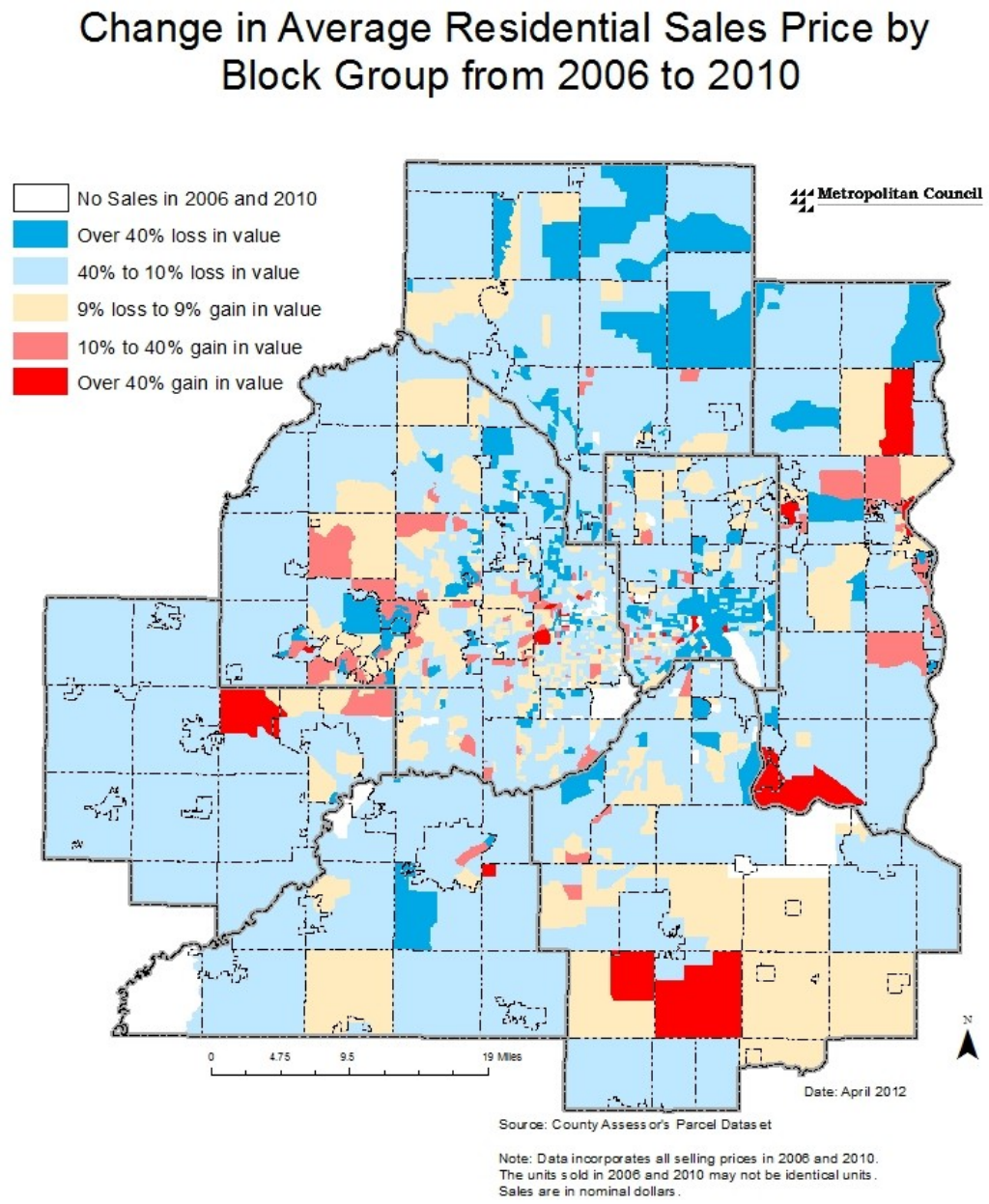


Figure 5.3: Change in average residential sales price by Census block group from 2006 to 2010 in the Twin Cities Metropolitan Area. Only includes units that had sales in 2006 and 2010.

Another potential use of this study could involve Transit Oriented Development (TOD). Transit Oriented Design incorporates the use of transit into the zoning and land use patterns along transit corridors. This area of urban design and planning is gaining popularity, especially with the Twin Cities expanding their light-rail transit system. The data calculated from this thesis study could be incorporated into buffer analysis along certain corridors (Figure 5.4). The location of affordable housing would be a key ingredient along these corridors if the planners involved are targeting walkable communities where housing is prevalent. In an article entitled *The New Real Estate Mantra,* the Center for Neighborhood Technology outlines how housing data supports the theory that owner-occupied housing locations near transit-ways have a higher real estate value compared to areas across a region. The study focused on transit areas in San Francisco, Phoenix, Boston, Chicago, and Minneapolis-St. Paul as well, for the years 2006 and 2011. In Minneapolis-St. Paul, the study analyzed owner-occupied housing data pertaining to the Hiawatha Light-Rail transit corridor and the Northstar transit corridor. The findings of this study indicated that "although average residential sales prices declined across geographies, they fell 47.8 percent less in the transit sheds compared to the region. The Hiawatha shed performed 62.7 percent better than the region, while the Northstar transit shed did 11.2 percent better" (Center for Neighborhood Technology 2013). A possible upgrade to this study could include rental prices and manufactured housing locations to get a more precise picture of what is going on in these transit areas, all of which could be performed with the data contained in this thesis.

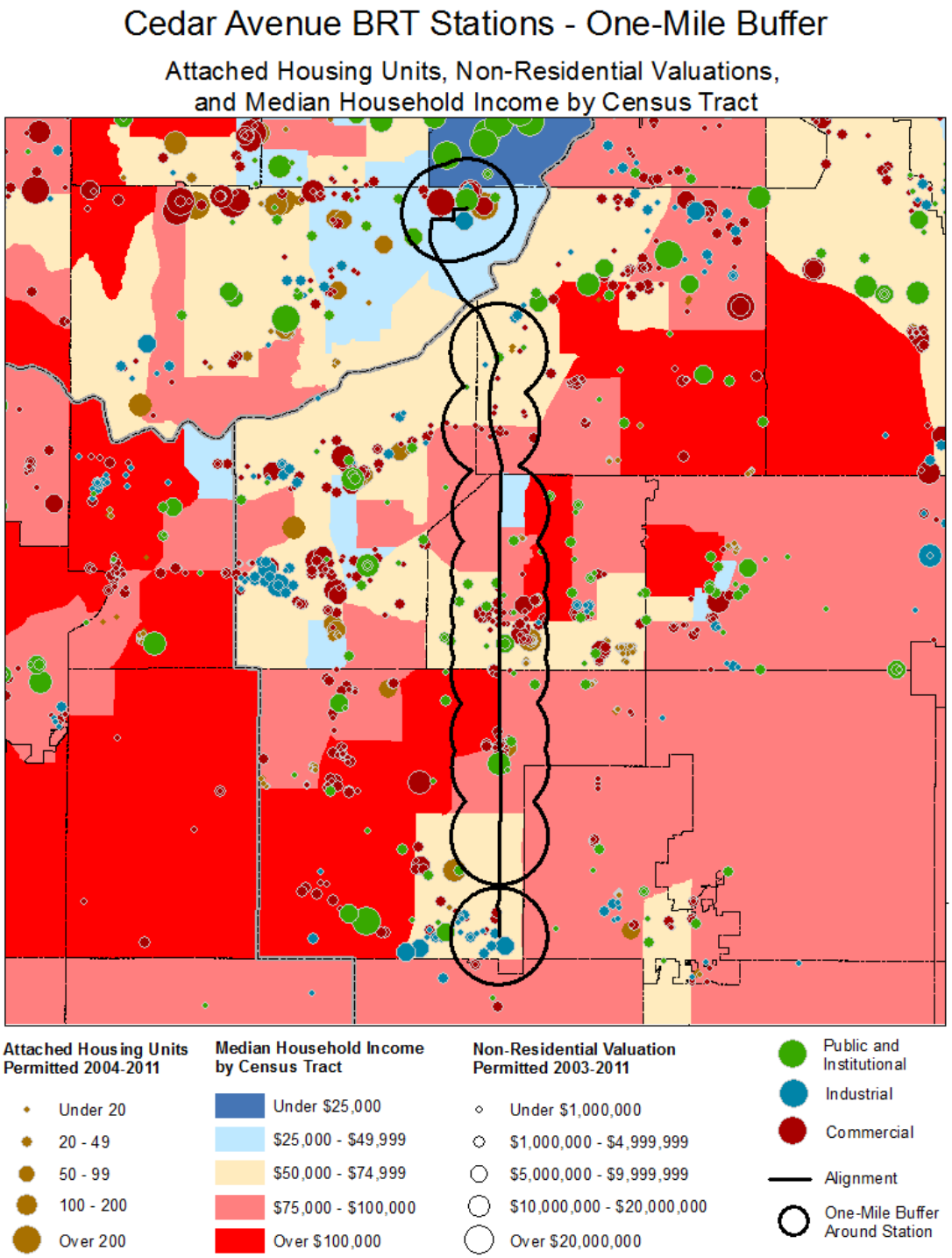


Figure 5.4: Development around Cedar Avenue BRT buffers.

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