

2016-2026 Land Use Assumptions

City of Rio Rancho Impact Fee Update and Amendment Study



prepared by

City of Rio Rancho Development Services Department

with assistance by

City of Rio Rancho Finance Services Department

and

Willdan Financial Services

July 2016

THIS
PAGE
INTENTIONALLY
LEFT
BLANK

**City of Rio Rancho Impact Fee Study
2016-2026 Land Use Assumptions**

Adopted October xx, 2016 by Resolution No. xx, Enactment xx

Governing Body:

Mayor - Gregory D. Hull
City Council District 1 – Jim Owen
City Council District 2 - Dawnn Robinson
City Council District 3 - Cheryl Everett
City Council District 4 – Marlene Feuer
City Council District 5 - Shelby Smith
City Council District 6 – David Bency

Capital Improvement Plan Citizen’s Advisory Committee (C.I.P.C.A.C):

District 1 - Vacant
District 2 - Vacant
District 3 – Alayna Setter
District 4 – Robert Radosevich (Vice Chair)
District 4 – Michael Schlichte (Chair)
District 5 – John Gutierrez
District 6 – Richard Costales

Planning and Zoning Board:

District 1 – David Heil (Chair)
District 2 – Brian Gilmore
District 3 – Robert A. Tyler
District 4 – Paul Wymer
District 5 – Sal Maniaci
District 6 – Sal Tortorici
At Large – Michael Schlichte (Vice Chair)

Administration:

City Manager - Keith Riesberg
Acting City Attorney – Ken Tager

Development Services Director – Anthony Caravella, AICP
Planning and Zoning Manager – Jim Arrowsmith, AICP
Planner II – Amy Rincon
Senior Financial Analyst – Don Martinez

TABLE OF CONTENTS

Introduction 1

Background 2

 Development History 3

Trends 4

Methodology 4

 Data Sources 4

 Population 4

 Land Uses, Densities, Intensities 6

 Land Use Estimates 6

Multi-Family residential Growth 10

Non-residential Growth Projections 10

Employment Growth Projections 11

FIGURES

1. Rio Rancho Municipal Limits and Impact Fee Service Area - July 2016 2

2. Approved and “actively developing” subdivisions with vacant lots available for development - July 2016 8

TABLES

1. City Population and Projections of Population: 1990 - 2026 5

2. 2010 US Census Housing Occupancy figures 5

3. Housing Occupancy Rates 5

4. Residential Permit starts and projections for single family detached homes per year 6

5. Master Planned Communities 9

6. Non-residential approved square footage and projected square footage 10

7. Employment Growth Projections 11

APPENDICES

A. References A-1

B. “City of Rio Rancho 2021 and 2026 Population and Employment Projections”, Mid-Regional Council of Governments, April 8, 2016 B-1

City of Rio Rancho Impact Fee Study 2016-2026 Land Use Assumptions

Introduction

Land use assumptions are the projections for future changes to land use, densities, intensities and the population. These projections are created by analyzing existing land use, densities and intensities over a specific time frame and analyzing the growth trends which can then be used to project future trends. The purpose of the land use assumptions in the process of evaluating development fees is to project the demand for capital improvements or facility expansions that will be needed to serve anticipated growth. An understanding of probable population and job growth and projected land uses will help the City of Rio Rancho develop the capital improvements plan under which an impact fee may be imposed. Impact fees, and land use assumptions necessary to develop those fees, are governed by the New Mexico Development Fees Act (Section 5-8-1 through 5-8-42 NMSA 1978).

The land use assumptions describe the service area and projected land use changes for a ten- year period from the beginning of FY 2017 (July 1, 2016) to the end of FY 2026 (June 30, 2026). For convenience, the planning horizon will be referred to as 2016 to 2026 or simply the planning horizon.

Land use assumptions are based on a several data sources as follows:

- The 2000 and 2010 Census of population, housing and occupancy rates,
- 2015 population estimates from the American Community Survey (ACS)
- Demographic projections prepared by the Mid-Region Council of Governments (MRCOG),
- Construction data provided by the City of Rio Rancho
- Residential and non-residential growth averages and projections from the Finance Department
- Approved master plans for major new developments provided by the Finance Department and Development Services

References and associated documents are listed in Appendix A.

The current Rio Rancho municipal limits which are Impact Fee Service area are displayed in Figure 1.

The land use assumptions will enable the City to structure its development program to accommodate future growth in the incorporated urban area in southeast Sandoval County, and the Quail Ranch/Paradise West annexation area in Bernalillo County. The unincorporated Rio Rancho Estates area in southwest Sandoval County is assumed to remain undeveloped for the time period of this study. The City is a single service area for the purpose of assessing impact fees on new development.

The following report describes development trends in Rio Rancho, the methodology used to prepare the land use assumptions, and to project future land uses. Population, housing, jobs and land use by type are based on the MRCOG report "City of Rio Rancho 2021 and 2026 Population and Employment Projections, 2010 Census data, 2015 ACS population estimates, permit data provided by the City Development Services Department. Historical data for 2010 to 2015, combined with the proposed land uses in master planned areas inside the City, was used to project the City's future land use requirements for the 2016-2021 planning horizon.

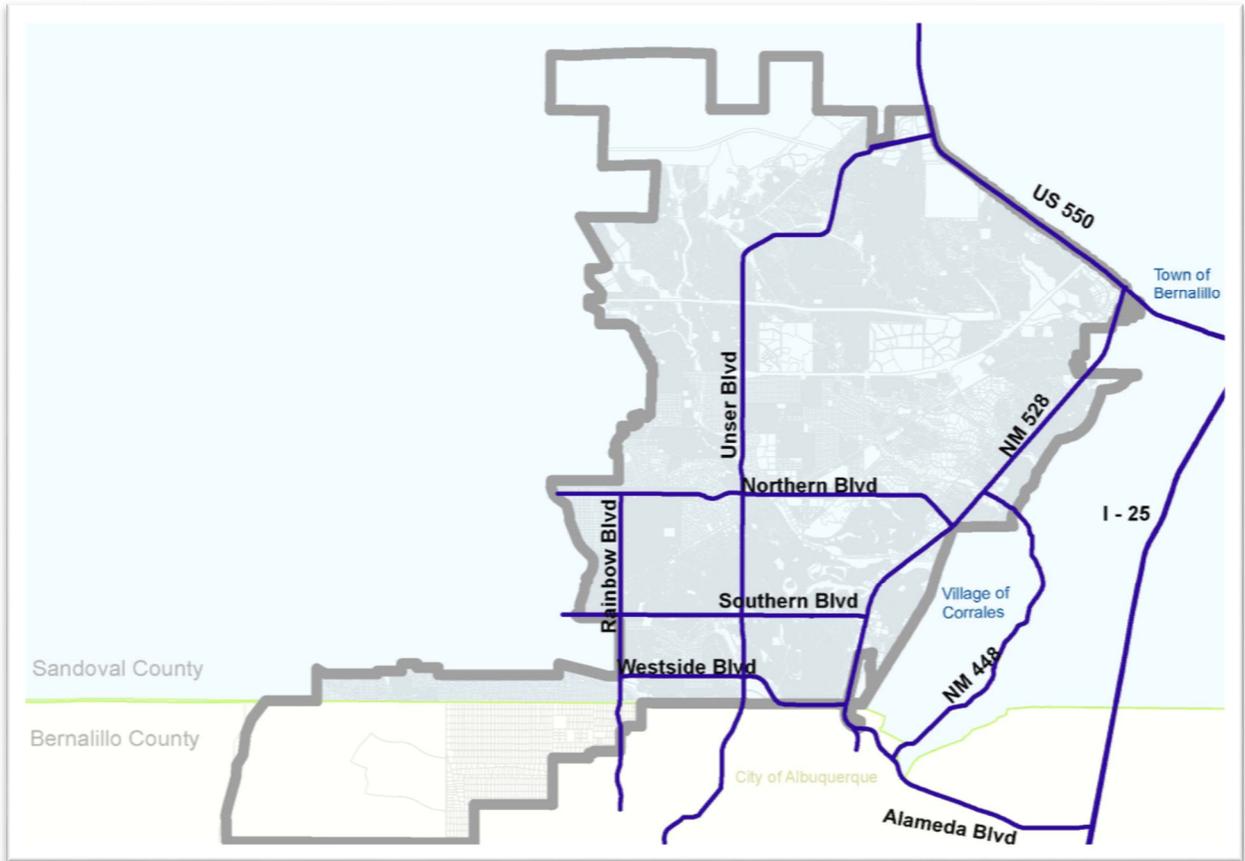


Figure 1. Rio Rancho Municipal Limits and Impact Fee Service Area - July 2016

Background

The City of Rio Rancho was one of the fastest growing communities in the United States from the early 1980’s through 2007. From a population of just over 10,000 in 1980, the population is estimated to have increased to over 70,000 in 2005, and the U.S. Census recorded 87,500 persons in 2010. Following the “Great Recession”, from December 2007 to June 2009, growth has slowed from an approximate average annual population of seven percent (7%) in the first decade of this century to a rate of approximately two percent (2%) during the first half of this decade (2010-2015). The ACS estimates that in July of 2015 the population is approximately 94,171.

Development History

Rio Rancho Estates encompassed approximately 155.7 square miles when it was originally platted in the early 1960s. Approximately one-half of the original Estates area is now within the incorporated City boundaries. During these early years, Rio Rancho developed as an unincorporated community in Sandoval County. The nucleus of a suburban community was constructed at the intersection of New Mexico (NM) 528 and Southern Boulevard during the 1970s. Rio Rancho grew rapidly from a population of 1,164 in 1970 to 10,131 people in 1980. Most growth occurred north of Southern Boulevard on both sides of NM 528. A small number of custom homes were built in Unit 16 East (South of Southern Boulevard and West of NM 528), which was served with power and municipal water.

As the community's population increased to over 10,000 people, its needs for urban services such as roads, parks and public safety facilities grew beyond the level typically provided by Sandoval County. The City of Rio Rancho was incorporated in 1982 out of a portion of the Rio Rancho Estates subdivision. Through a series of annexations over the past twenty years, the total municipal area, including the Quail Ranch/Paradise West annexation area, has increased to over 105 square miles in two counties. The main portion of the City covers 87.2 square miles in southern Sandoval County, while the Quail Ranch/Paradise West annexation area covers 15.5 square miles in northern Bernalillo County. Less than one-fourth of the total land area of the City is currently developed.

Much of the land in Rio Rancho Estates was sold to individual owners throughout the United States during the early years of the subdivision. The resulting pattern of pre-mature platting and fractionalized ownership has dictated the locations of most new development, and the most rapid growth in the City has occurred on large parcels under single ownership. The Cabezon project in Unit 16 represents the first major redevelopment project in the City, in which the City was able to exercise its condemnation powers to help assemble and replat large tracts of land.

The redevelopment expertise gained by the City in Unit 16 will help future redevelopment of infill areas in the city limits.

The continued pace of growth will be influenced by the supply of land that can be platted, developed and sold to builders. Areas with pre-mature platting may have to be replatted or redeveloped before significant growth can take place. A review of building permits issued in Rio Rancho from 1999 through 2002 shows that 43 percent of new residential construction in Rio Rancho occurred in major subdivisions which are typically platted on large tracts developed by a single entity. Approximately one third of new housing was built in smaller subdivisions, and 23 percent of new homes were built on individual lots in the original platting of the obsolete subdivisions that are located throughout the City.

This development pattern is important because of the differences in lot sizes and the level of infrastructure and amenities associated with the type of subdivision being developed. Most of the City's residential development is zoned R-1, which has a minimum lot size of 7,000 square feet.

However, there are approximately 6,760 lots that are under 7,000 square feet in size, which cover over 951 acres inside the City. In 2003, almost one third of the new homes were built on lots that were less than 7,000 square feet in size. These lots were in subdivisions where project level improvements, such as local streets with sidewalk, curb and gutter, and lights, are required under the subdivision ordinance. System-level infrastructure for major roads, bikeways, parks, and public safety facilities is provided under the impact fee ordinance or through developer dedications in large-scale projects.

In Unit 17, lots are typically 1/2 acre or larger, and lots are usually developed individually for custom-built homes without the project level-improvements required by the subdivision ordinance. This is because the pre-mature platting in Unit 17 predates the subdivision ordinance.

However, the area is still eligible for system level improvements under the impact fee ordinance. As infrastructure is extended to serve major subdivisions, proximity to roads and utilities makes development of nearby individual lots feasible. Therefore, average lot sizes, land absorption and the distribution of new homes will reflect a mix of new subdivisions and individual lots.

Trends

Population estimates, and projected permit applications point to a growing population and an increase in residential and non-residential development in the City of Rio Rancho. The following sections will breakdown the population estimates and projections, land uses, and the associated densities and intensities.

Methodology

The rationale behind the methodology used in developing the land use assumptions is that land use change is a function of population and employment growth. Therefore, the land use assumptions reflect changes to current developed conditions that would result from projected population and employment growth. Demand for new housing is also a function of population and employment growth, so that assumptions about future housing are integrated into the overall approach to the land use assumptions.

Data Sources

Information used in developing land use assumptions was taken from the existing sources described in each section. References are listed in Appendix A.

Population

Population and population projections have been formulated from analyzing various sources, these sources start with the US Census and include estimates from the American Community Survey and projections from MRCOG and CoRR Development Services. The US Decennial Census every 10 years and was completed in 2010, this survey aims to count every individual. American Community Survey (ACS) is a smaller spot survey that estimates the population in 5 time frames. MRCOG uses Census information and modeling scenarios to produce population projections. MRCOG projections are from "City of Rio Rancho 2021 and 2026 Population and Employment Projections". This report took two methods for projecting population, one method includes the projected number of new residential starts and housing occupancy rates and uses three scenerios to project three possible populations, one scenario would be a decline, a middle of the road and an increase in residential starts. The second method used by MRCOG is a method that projects population on projected births, deaths and migration, this method again has three scenarios. MRCOG took the middle of both scenarios and averaged the results to project a population of 102,821 in 2021 and 109,948 in 2026 with a growth rate of 1.3%.

In 2014 the City of Rio Rancho grew by 2.2% and it has a history of growing at a relatively strong rate. Staff feels that it is likely that the City will continue to grow at a rate of closer to 1.6-1.7% each year and which would be in line with the MRCOG projections of a population of 104,936 by 2021 and 115,275 by 2026.

Table 1: City Population and Projections of Population: 1990 - 2026

Year	1990*	2000*	2010*	2015**	2021	2026
Population	32,505	51,765	87,521	94,171	104,936	115,275

*US Census, **ACS July 1, 2015 Estimates, 2016-2026 Projected by MRCOG scenario 1.C.

Single Family Residential DU's 3,748

Table 2: 2010 US Census Housing Occupancy figures

Housing Units (2010)	Households	Average household size	Average family size	Occupancy
33,964	21,892	2.74	3.19	94%

In 2010 the US Census estimated the average number of housing unit in the City of Rio Rancho to be 33,964. These housing units housed 21,892 different households with an average household size of 2.74 people per house. Rio Rancho also has a high occupancy rate at 94% which means that there is not a large market of homes available. A high occupancy rate is generally a good sign for developers that there is a need to build more housing units.

Table 3: Housing Occupancy Rates

	2005	2010	2014	2021	2026
Units	24,612	29,726	32,574	35,334	38,084
Single Family Detached	86.9%	87.6%	88.6%	89%	89%
Attached	3.2%	2.8%	2%	2%	2%
Multi-Family	9.9%	9.6%	9.4%	9%	9%

Housing Occupancy rates come from the 2010 Census and are projected based on projected dwelling units using the Finance Departments average of 3% annual growth rate for single family residential dwelling units. As described in the MRCOG report a high occupancy rate in Rio Rancho is indicative of people moving into Rio Rancho faster than new houses are being built. The overwhelming majority of the population are living in detached single family dwelling units and there has been a slight decrease in the share of people living in multi-family homes. This decrease could also be attributed to a lack or slow rate of multi-family units being built.

Land Uses, Densities and Intensities

The City of Rio Rancho has an adequate supply of vacant land to accommodate the projected growth of both residential and non-residential uses. Land Uses are generally tied to the existing uses and zoning on a parcel. In the planning horizon the following residential planned developments may build-out close to capacity and that single family homes on individual lots will continue to increase. Below is a list of planned developments that have been approved and are likely to continue building single family detached homes.

Cabezon	Loma Colorado	Milagro Mesa
Enchanted Hills	Lomas Encantadas	Mountain Hawk
Hawksite	Mariposa	Northern Meadows
Hidden Valley	Melon Ridge	Los Diamantes

These developments include the majority of the 3,265 residential lots inventory that has a form of approval for development. Approvals range from utilities in place to areas that will need more work to get ready to build.

Table 4: Residential Permit starts and projections for single family detached homes per year

Year	2010	2011	2012	2013	2014	2015	2016	2021	2026
Permits**	455	301	417	479	479	421	450	608	725

**Permits are counted in the year construction began, [Projections by DSD](#)

Using the number of permits that started construction can be used to predict the number of single family home building permits per year for the next 10 years based upon a steady rate of 3% growth in permits. Multi-family projections have a rate of growth of 2% each year for the next 10 years.

Along with building permits the City tracts large subdivisions and associated master plans. These give a baseline for vacant residential property that is ready for development. Currently there is an estimated 3,265 vacant lots ready for development. Taking into account the projected building permits, the existing vacant lots ready for development can be absorb over 4 years of development. This does not include vacant lots that individual property owners develop independently of a subdivision, which is the development pattern for portions of Unit 10 and the majority of Unit 17. As the economy rebounds new applications for master planned communities and large subdivisions are expected to continue, and it is likely more vacant lots ready for development will be in reserve before the existing 3,265 are exhausted.

Land Use Estimates

The land use assumptions begin with existing, or base year, conditions. For this project, the base year is 2016. US Census data, MRCOG population data, housing counts and building permit records were used by the City of Rio Rancho to update housing and population estimates. Population forecasts are based upon the average growth of the City. Acres of land use were tabulated from the City's geographic information system (GIS), records of subdivision plat, and certificates of occupancy. The potential use of vacant land was determined from the City's GIS data and approved master plans for major subdivisions. Developed land use categories include two residential land use types and three nonresidential land use types. These are:

- Single-family Residential. This category includes custom built single-family residential development, primarily on large lots of one half acre or more in areas such as Unit 10 and 17.
- Multi-family Residential. This category includes apartments, condominiums and other higher density residential development. The lot sizes for this category vary according to the type of unit and density of development.
- Retail/Commercial. This category includes all retail and service land use categories.
- Warehousing/Industrial. Manufacturing, warehousing and other industrial uses are included in this category. Land that is located in industrial parks and land zoned for mixed commercial/industrial use are assumed to become industrial in the future.
- Office/institutional. Offices, some services, medical facilities and private institutions such as churches and private schools are included in this category.
- Vacant. Developable land includes land that is vacant and zoned for residential or commercial use.
- Public. Public land includes rights-of-way, utility sites, schools and government facilities. City land use data include public rights-of-way and easements. The percentage of total developed area devoted to these uses is assumed to remain constant into the future as new roads, drainage easements, and utility easements are incorporated into new development.

The City of Rio Rancho has a more than adequate supply of vacant land to accommodate projected growth through 2026. Vacant land within the developed area of Rio Rancho has been quantified by the City from the City's geographic information system (GIS). New, large-scale master planned communities and smaller, replatted subdivisions in infill areas will provide for an increasing share of future residential and nonresidential development. Based on data from the Finance department there are approximately 3,300 vacant lots currently available for development. These 3,300 are just the lots that are part of approved master plans and/or approved subdivision. New home construction is continuing in Mariposa, Cabezon, Northern Meadows, and Loma Encantadas, Loma Colorado, High Range, Solcito and Hawksite. Below is a map of the aforementioned subdivisions followed by a table that breaks down the number of approved lots and the amount of houses that have been built in the subdivision. There is also a projected population increase based on the number of houses and a housing an average family household size of 2.74.

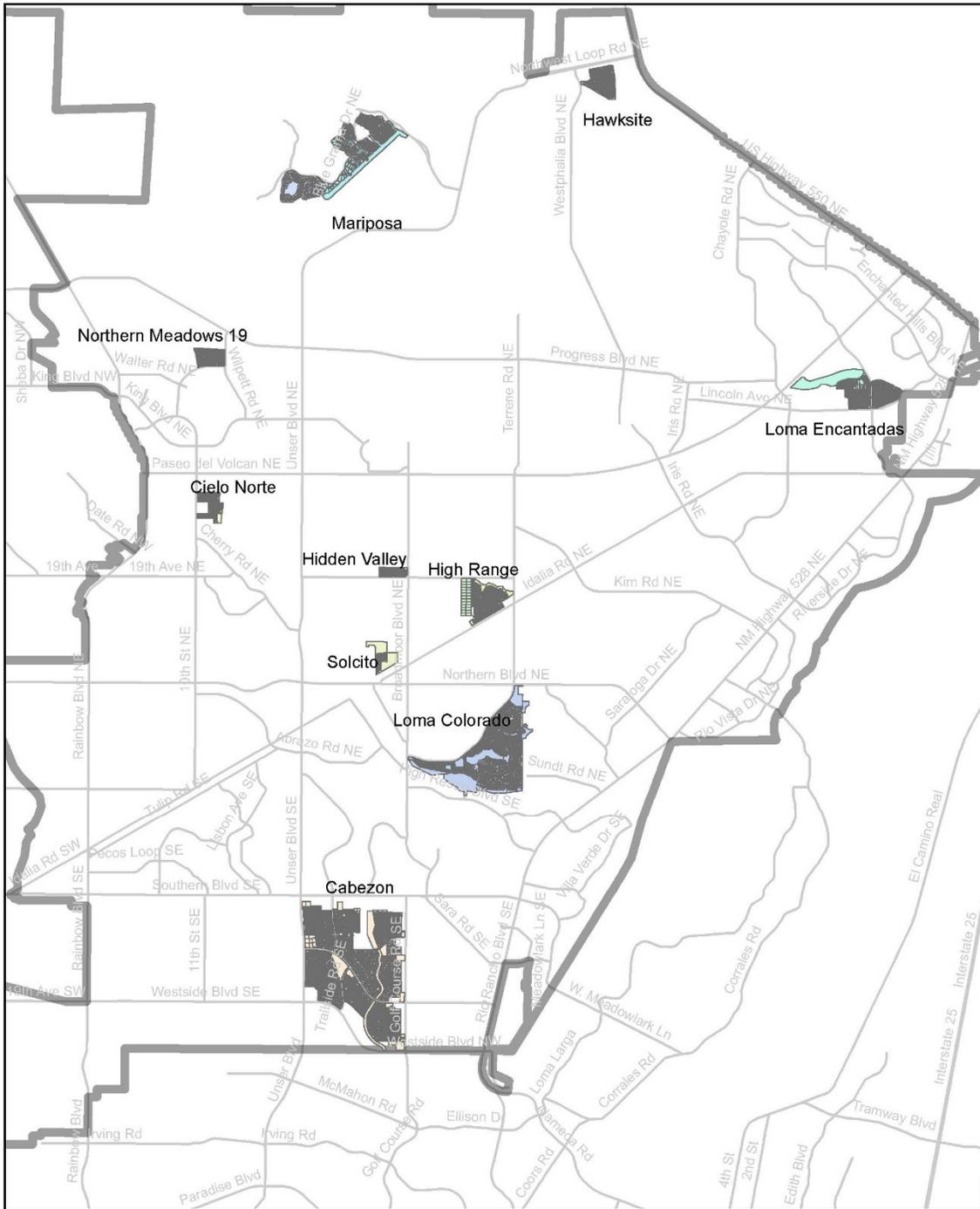


Figure 2. Approved and “actively developing” subdivisions with vacant lots available for development - July 2016

Table 5: Master Planned Communities

Subdivision/ Master plan	Single Family Acreage	Single Family DU	Single Family Built	Total DU	Projected Population
Mariposa	244 acres	518	172	518	142
Loma Encantadas	71 acres	451	227	451	1236
Hawk Site Tract 33 and 34	39 acres	266	0	266	729
Northern Meadows 19	27.6 acres	217	172	217	595
Cabazon	305 acres	2012	1885	2012	5513
Loma Colorado	219 acres	1174	709	1174	3217
Los Diamantes	109 acres	460	0	460	1260
High Range 4	33 acres	170	0	170	466
High Range Unit 3	51 acres	401	319	401	1099
Hidden Valley	14.5 acres	129	82	129	353
Solcito	23.6 acres	51	23	51	140
Cielo Norte	27 acres	182	126	182	499

Multi-Family residential Growth

The current large subdivisions and master plans do not include any new multi-family developments. There is approximately 1600 acres of R-4 zoned acreage in the City, with approximately 876 acres that are vacant. There is also approximately 1100 acres of R-3 with approximately 433 of those acres being vacant. There is room for multi-family residential growth within the City.

Non-residential Growth Projections

Baseline data for existing nonresidential space is estimated from the approved building permits for nonresidential structures. Nonresidential growth has maintained a steady growth that can be described as a 2% yearly increase in commercial space, 4% yearly increase in office and intuitional space, and a .75% yearly growth in Industrial space.

Non-residential land uses can be estimated by the amount of approved square footage per year. Below is a table displaying the approved non-residential building square footage.

Table 6: Non-residential approved square footage and projected square footage

	FY2010	FY2014	FY2015	FY2016	FY2021	FY2026
Commercial	32,345	61,506	133,187	82,795	90,239	93,885
Office/Institutional	344,785	554,679	103,528	122,363	143,141	154,821
Industrial	0	11,238	0	8,438	8,770	8,902
TOTAL	377,130	627,423	236,715	213,597	242,151	257,609

Projections by Finance and DSD

Commercial 609
 Office 934
 Industrial 60

There has been fluctuations in the amount of non-residential growth, but in general is a 2% increase in commercial square footage after large projects have been removed from the numbers. Office and Institutional, which includes schools and government, has a 2% rate of growth and Industrial has a 0.75% rate of growth. Table 7 has the existing approved square footage and projected square footage for each individual and is not a cumulative of the non-residential square footage in the City.

In 2016 there was a cumulative non-residential square footage of 8,362,243 throughout the City. It is projected that the non-residential square footage will increase to a cumulative of 9,502,020 by 2021.

Employment Growth Projections

Employment is projected to grow at a steady 2-3% rate during the planning horizon. This rate of employment growth is projected at a slightly lower rate than the projected rate of non-residential growth that is projected from the projected building permit numbers. The following numbers are based upon projected housing units and the City of Rio Rancho's share of Sandoval County's employment numbers and industry type. Again MRCOG's report on population on employment is referenced for the projected numbers. For employment MRCOG used two scenarios the first scenario assumes that Rio Rancho will not attract a major employer before 2026, with the announcements this summer of a large employer moving into the city by the beginning of 2017 staff feels confident that the second scenario which calculates for growth and rebound in the labor market for the city should be the projected numbers for future employment.

Table 7: Employment Growth Projections

	2021	2026
MRCOG projections	24,189	25,955
Percent of Growth	2.9%	2.3%

Data from the "City of Rio Rancho 2021 and 2026 Population and Employment Projections" a copy can be found in the appendix.

THIS
PAGE
INTENTIONALLY
LEFT
BLANK

Appendix A

References

Mid-Regional Council of Governments, “City of Rio Rancho 2021 and 2026 Population and Employment Projections”

Finance Department, Fiscal year 2017 Impact Fee Projection Detail

Finance Department, Survey Details for Current Activity and Profile

U.S. Census of Population and Housing, 2010

American Community Survey of Population and Housing, 2015

THIS
PAGE
INTENTIONALLY
LEFT
BLANK

Appendix B

City of Rio Rancho
2021 and 2026 Population and Employment Projections

*Kendra Watkins, Socioeconomic Program Manager and Jonathan Blaich, Socioeconomic Analyst
Mid-Region Council of Governments
April 8, 2016*

Introduction

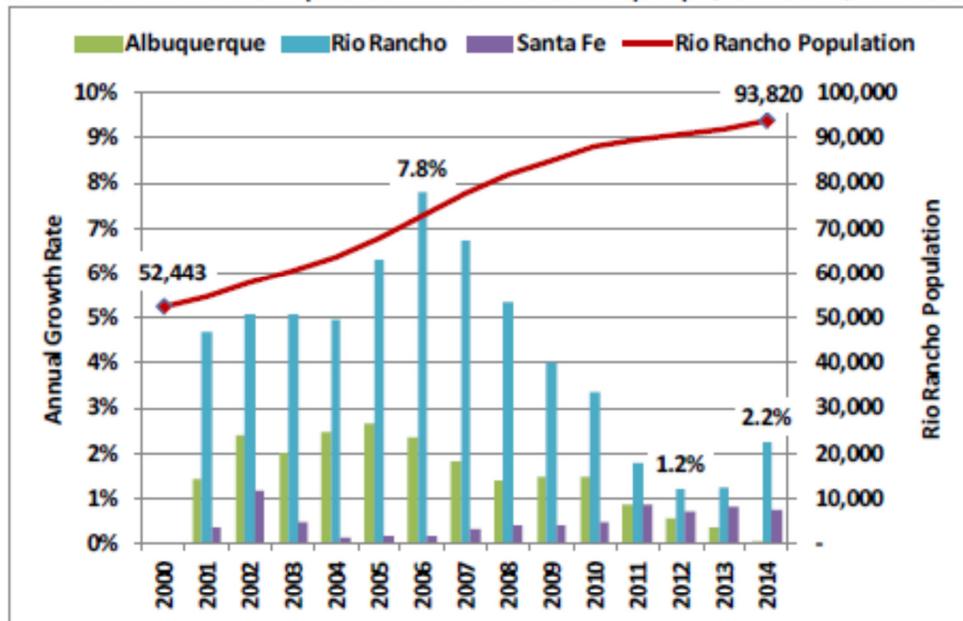
The Mid-Region Council of Governments (MRCOG) was requested by the City of Rio Rancho to provide Fiscal Year (FY) 2021 and 2026 population and employment projections for the municipality. Data sources that were drawn upon to inform this effort include the US Census Bureau (historical population estimates), City of Rio Rancho (single-family and multi-family building permits for new residences), New Mexico Department of Health (birth and death statistics), the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW), the US Census Bureau OnTheMap data tool, and the New Mexico Department of Workforce Solutions (NMDWS) (2012–2022 Employment Projections). The population projections for the City of Rio Rancho for FY 2021 and FY 2026 are 102,821 and 109,948, respectively. The projections were determined using two demographic techniques: a housing unit method, and a components of change method. The employment projections for FY 2021 and FY 2026 are 23,062 and 23,994, respectively. Historical employment was determined using data from the BLS QCEW and the Census OnTheMap data tool. The projections were determined by combining two scenarios: a base case scenario, which assumes insignificant structural changes to the Rio Rancho labor market, and employment projections from NMDWS.

Population Background

The population of Rio Rancho was 93,820 in 2014, 78.9 percent higher than 52,443 in 2000, according to data from the U.S. Census Bureau's Population Estimates Program (PEP). During this period, it was the fastest growing city of those with over 5,000 people in New Mexico. Historical data are shown in Chart 1. In 2005, Rio Rancho surpassed Santa Fe as the third largest city in the state, after Albuquerque and Las Cruces. In 2014, the population of Rio Rancho increased by 2.2 percent, while the populations of Albuquerque and Santa Fe increased by 0.1 percent and 0.7 percent, respectively.

Appendix B (continued)

Chart 1: Historical Annual Population Growth Rates in Albuquerque, Rio Rancho, and Santa Fe



Housing Unit Method

The housing unit method is a common method used for estimating population. For the purpose of this analysis, residential new starts will also be referred to as permits. The method applies the following formula:

$$\text{FY 2021 Population} = \text{FY 2014 Population} + ((\text{projected residential new starts} * \text{FY 2014 occupancy rate}) * \text{FY 2014 persons per household})$$

Rio Rancho experienced a major housing boom in the early-to-mid 2000s that resulted in a peak number of new permits of 2,938 in FY 2005, a major increase from 573 in FY 2000. The rapidly growing city followed the path of many other cities in the US as it entered the Great Recession, and new permits collapsed, which resulted in a multi-decade low of 349 in FY 2011. The housing market has slowly recovered from the low point and permits have risen to 559 in FY 2015. (Chart 2)

While housing growth is often indicative of population growth, the two may diverge. For example, the existing housing stock in Rio Rancho has been filled with new residents at a faster rate than new units were built, which has resulted in a slightly higher occupancy rate. The occupancy rate was 94 percent in 2000, according to data from the U.S. Census. The occupancy rate remained at 94 percent in 2010, according to the American Community Survey (ACS) 1-year data, and ticked up to 95 percent in 2014 as excess housing stock was filled. In addition, an increase in household size occurred. According to U.S. Census, the average household size was 2.70 persons in 2000. The average increased to 2.74 in 2010 and ticked up to 2.76 persons in 2014, according to the ACS. Therefore, population has grown at a slightly faster rate than housing. Examples of this trend include aging seniors that are moving back in with children, or young adults that are unemployed or employed part-time and have delayed moving away from home or have moved back in with their parents. While housing permits are a key indicator of growth, they should be viewed in light of these conditions.

Appendix B (continued)

Three scenarios were created based on separate assumptions about the housing market to create population projections. All three scenarios assume that the most recent occupancy rate and household size for the City of Rio Rancho will continue into the projection years. In 2014, the occupancy rate was 95 percent and the average household size was 2.76 persons. Scenario 1.A assumes that Rio Rancho will enter a recession and residential new housing starts will decline to the level observed in FY 2011 by FY 2021, which was the lowest level in over two decades. The chance of a recession in the United States is as high as 25 percent in 2016, according to Bank of America Merrill Lynch. This is a high estimate and the actual likelihood of a recession is probably lower than 25 percent. This scenario assumes that new starts will rise slowly from a bottom in FY 2021 to the level observed in FY 2010 by FY 2026. Scenario 1.B follows the projection for new permits provided by the City of Rio Rancho from FY 2015 to FY 2022. This assumes the number of new starts will gradually rebound to about 600 by FY 2022. An annual rate of 2.0 percent is assumed for FY 2023 to FY 2026, which would bring new starts to the level observed in FY 2009 by 2026. Scenario 1.C assumes the housing industry will rebound strongly to FY 2008 levels by FY 2026, which was three years after permits peaked in FY 2005 and three years before permits bottomed in FY 2011. The results of the three population projection scenarios are shown in Table 1 and the compound annual growth rates associated with each scenario are shown in Table 2.

Table 1: Housing Unit Method, Population Projections

Scenario	Description	FY 2021	FY 2026
1.A	Decline to FY 2011 level (Double dip recession)	102,888	108,790
1.B	CoRR permit forecast to FY 2022 and rebound to FY 2009 level by FY 2026	103,476	111,855
1.C	Rebound to FY 2008 permit level	104,936	115,275

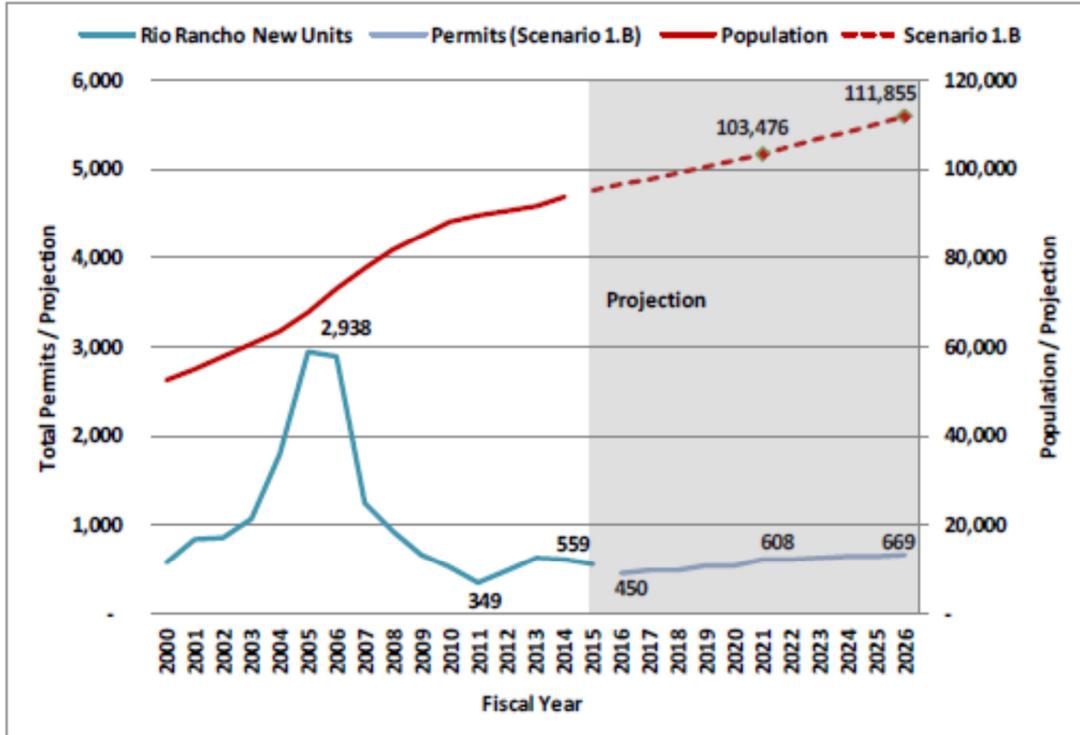
Table 2: Housing Unit Method, Compound Annual Population Growth Rates from 2014

Scenario	Description	FY 2021	FY 2026
1.A	Decline to FY 2011 level (Double dip recession)	1.3%	1.2%
1.B	CoRR permit forecast to FY 2022 and rebound to FY 2009 level by FY 2026	1.4%	1.5%
1.C	Rebound to FY 2008 permit level	1.6%	1.7%

Scenario 1.B is the preferred scenario for several reasons. This scenario assumes that people have delayed home-buying for economic reasons leading to a certain amount of pent-up demand for new housing. It also assumes that employed people, such as first-time home buyers in the millennial generation, will gain the confidence to enter the housing market with an increase in the level of employment and more household buying power. However, housing starts have not rebounded significantly from the depths of the recession and this scenario assumes that housing demand will not rise to levels observed during the inflated levels of the mid-2000s. This can be partially explained by an aging baby boomer generation that will become less mobile, and will have less of an impact on demand for new primary or secondary residences. This scenario relies on the assumption that housing permits will return to the level observed in FY 2009 by FY 2026. Historical population and permits data and the Scenario 1.B projections are shown in Chart 2.

Appendix B (continued)

Chart 2: Housing Unit Method, Population Projections for Scenario 1.B—Gradual Rise to FY 2009 Permit Level by FY 2026



Appendix B (continued)

Components of Change Method

A second method to project population growth considers demographic factors, including births, deaths, and migration. The method applies the following formula:

$$\text{FY 2021 Population} = \text{FY 2014 Population} + ((\text{projected births} - \text{projected deaths}) + (\text{projected in-migration} - \text{projected out-migration}))$$

Rio Rancho has relied on migration, both from inside and outside of the state, as a key component of growth. For the period from FY 2004 to FY 2014, migration accounted for approximately 84 percent of the population change in Rio Rancho. By comparison, the natural increase (births minus deaths) accounted for approximately 16 percent of the population change. Over 4,000 people migrated to Rio Rancho in FY 2006 and FY 2007, but fewer than 800 people migrated to the city in FY 2012 and FY 2013. FY 2014 showed an improvement over the previous two years, with over 1,700 people migrating to the city. Migration will likely be the variable that has the most significant impact on future population growth in Rio Rancho. Calendar year birth and death statistics from the New Mexico Department of Health Selected Health Statistics Annual Report were used to inform the projections. Fiscal year birth and death statistics were calculated by averaging the figures for the two calendar years in each fiscal year. Births in Rio Rancho rose from 789 in FY 2004 to 1,125 in FY 2010 and dropped to 951 in FY 2014. Deaths steadily increased from 409 in FY 2004 to 634 in FY 2014.

The components of change method was used to produce three different population projection scenarios for the City of Rio Rancho. All scenarios incorporate the same natural increase (births minus deaths) assumptions. Births are expected to rise gradually as family formation increases among those in the millennial generation. It is assumed that births will rise from 990 in FY 2015 to 1,120 in FY 2021 and 1,245 in FY 2026, reaching slightly higher levels than were observed in the late 2000s and early 2010s. Deaths are expected to rise from 700 in FY 2015 to 830 in FY 2021 and 985 in FY 2026, as death rates rise among those in the baby boomer generation. Scenario 2.A assumes zero net migration and that natural increase will be the only cause of growth. Scenario 2.B assumes that migration will return to 990 people in FY 2021, which is approximately the level observed in FY 2011. Migration will then taper off to 790 people in FY 2026, which is slightly higher than the level observed in FY 2013. This scenario is the base case and assumes that the senior population will age in place and will be less geographically mobile. As retired baby boomers grow older, fewer will migrate to sunbelt states, such as New Mexico. In this scenario, the migration level will trend lower than the high levels of migration observed in the mid-to-late 2000s, but will not drop to the lowest level of near 600 people observed in FY 2012. In FY 2021 and FY 2026, migration will account for about 77 percent and 75 percent of the population change, respectively. Scenario 2.C uses the historical average percentage of the population change that was attributed to migration from FY 2008 to FY 2014. The average was approximately 79 percent, which was used to calculate the projected population for FY 2021 and FY 2026. This average excludes the historical years FY 2004 through FY 2007; migration is not expected to return to the high levels observed during that period. Births are expected to outnumber deaths in all years, resulting in a positive natural change of 290 in 2015 and 290 in FY 2021. Deaths are expected to increase at a slightly faster rate than births from FY 2021 to FY 2026, resulting in a positive natural change of 260 in FY 2026. Since it is assumed that migration will remain a constant share of the population change, the slightly lower natural change will result in a migration projection that declines slightly from FY 2021 to FY 2026. While the percentage of the population change will remain constant at 79 percent, total migration is projected to be 1,085 in FY 2015, 1,085 in FY 2021, and 975 in FY 2026. The results of the three population projection scenarios are shown in Table 3, and the compound annual growth rates associated with each scenario are shown in Table 4.

Appendix B (continued)

Table 3: Components of Change Method, Population Projections

Scenario	Description	FY 2021	FY 2026
2.A	Zero net migration	95,825	97,215
2.B	Rise to FY 2011 migration level in 2021 and taper off into 2026	102,165	108,040
2.C	Constant share of 79 percent based on FY 2008 to FY 2014 average	103,325	109,915

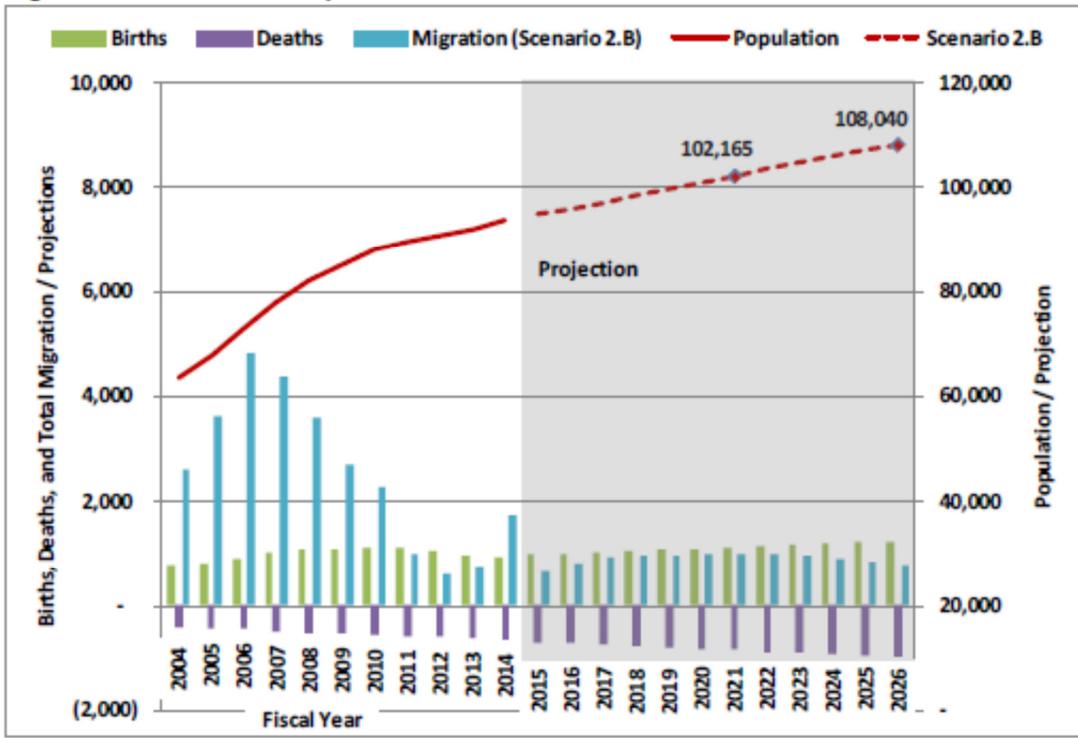
Table 4: Components of Change Method, Compound Annual Population Growth Rates from 2014

Scenario	Description	FY 2021	FY 2026
2.A	Zero net migration	0.3%	0.3%
2.B	Rise to FY 2011 migration level in 2021 and taper off into 2026	1.2%	1.2%
2.C	Constant share of 79 percent based on FY 2008 to FY 2014 average	1.4%	1.3%

Scenario 2.B is the preferred scenario for several reasons. Zero migration, which is assumed in Scenario 2.A, is unprecedented in Sandoval County or Rio Rancho over the past two decades. Rio Rancho is a growing metropolitan area and has attracted in-state migration from neighboring Bernalillo and Santa Fe Counties. While this may slow, it is unlikely to stop completely. Given job growth, specifically in key industries, such as retail trade, healthcare and social assistance, and educational services, Rio Rancho is likely to continue to attract migrants. However, given the depth of the recession and its profound impact on employment, it is not likely that migration will rebound to levels observed in the mid-2000s by FY 2021 or FY 2026. Historical population, natural change (births minus deaths), migration data, and the Scenario 2.B projections are shown in Chart 3.

Appendix B (continued)

Chart 3: Components of Change Method, Population Projections for Scenario 2.B—Rise to the FY 2011 Migration Level in 2021 and Taper Off Into 2026.



Appendix B (continued)

Combined Population Projections

The population projections for the two preferred scenarios are shown in Table 5 and the compound annual growth rates are shown in Table 6. The combined population projection incorporates the projected residential new starts, the expected natural increase, and the projected migration activity for the City of Rio Rancho. The preferred scenarios using the housing unit method (1.B) and the components of change method (2.B) produce FY 2021 population projections that differ by about one percent. When averaged, they produce a combined FY 2021 population projection of 102,821 for the City of Rio Rancho. This represents a compound annual growth rate of 1.3 percent and a total increase of 9.6 percent from the FY 2014 Census population estimate of 93,820. The FY 2026 preferred scenarios (1.B and 2.B) projections differ by about 3.5 percent and produce a combined average projection of 109,948. This represents a compound annual growth rate of 1.3 percent and a total increase of 17.2 percent from FY 2014.

Table 5: Preferred Scenarios Combined Population Projections

Scenario	Description	FY 2021	FY 2026
1.B	CoRR permit forecast to FY 2022 and rebound to FY 2009 level by FY 2026	103,476	111,855
2.B	Rise to FY 2011 migration level in 2021 and taper off into 2026	102,165	108,040
Average		102,821	109,948

Table 6: Preferred Scenarios Combined Compound Annual Population Growth Rates

Scenario	Description	FY 2021	FY 2026
1.B	CoRR permit forecast to FY 2022 and rebound to FY 2009 level by FY 2026	1.4%	1.5%
2.B	Rise to FY 2011 migration level in 2021 and taper off into 2026	1.2%	1.2%
Average		1.3%	1.3%

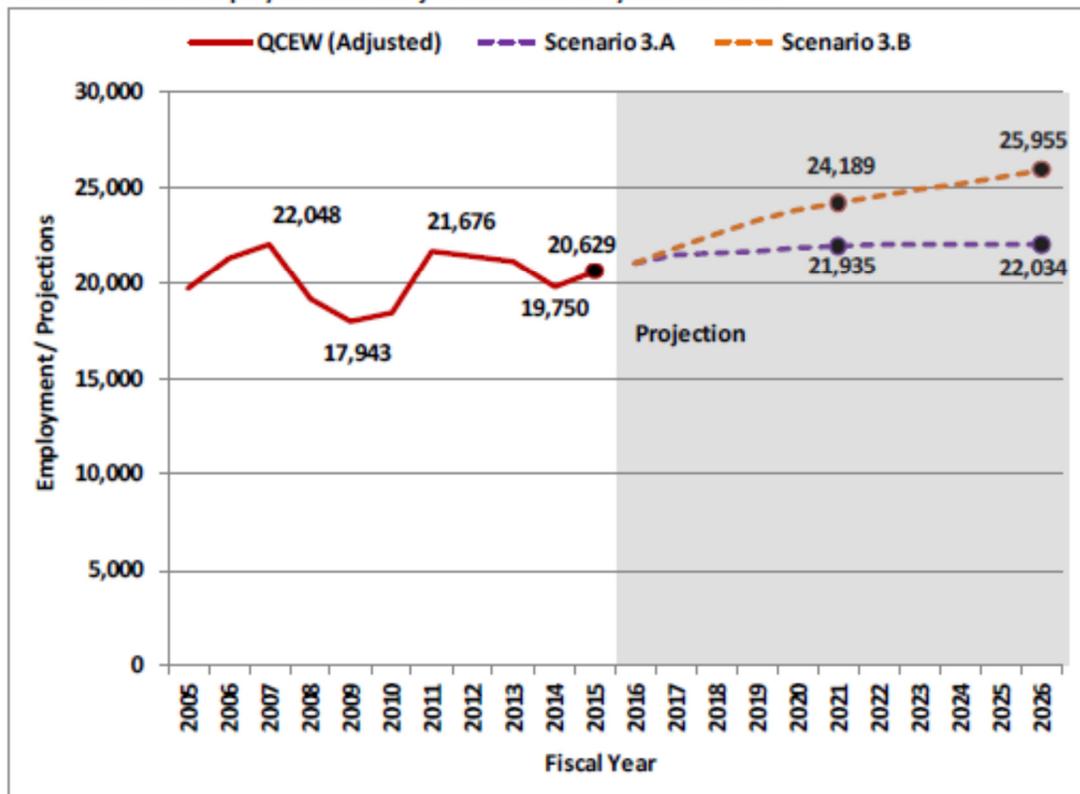
Appendix B (continued)

Employment Background

Historical employment in the City of Rio Rancho was estimated with data for Sandoval County collected from the Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW). Data from the Census OnTheMap data tool were used to calculate the historical share of Sandoval County employment that was within Rio Rancho from FY 2005 to FY 2014. The adjusted QCEW are presented in Chart 4. The historical curve shows a pronounced dip from 22,048 in FY 2007 to 17,943 in FY 2009 during the Great Recession. Employment rebounded to 21,676 in FY 2011. The average proportion of Sandoval County employment that was in Rio Rancho was about 71 percent from 2012 to 2014. This share was used to calculate a Rio Rancho employment estimate of 20,629 for FY 2015.

The manufacturing sector accounted for the largest number of jobs in Rio Rancho in 2014, according to data from the Census OnTheMap tool. But the sector accounted for a smaller percentage of employment in Rio Rancho than it did prior to the recession. The construction sector declined significantly from its peak before the recession and made up a much smaller share of the economy after the recession. Other service sectors, including healthcare and social assistance, accommodation and food services, educational services, and administration and support, waste management and remediation, have grown and each accounted for a larger proportion of employment after the recession. The Rio Rancho economy has become more diversified, and its industry sector shares are more closely aligned with the United States than with New Mexico. The improvements in diversification will make the city more resilient in a future recession.

Chart 4: Historical Employment and Projections for the City of Rio Rancho



Appendix B (continued)

Employment Projection Methods and Scenarios

The QCEW includes filled jobs by place of work that report to the Unemployment Insurance (UI) program of the State of New Mexico. These include full or part-time jobs that are temporary or permanent. It is likely that a person who holds multiple jobs will be counted two or more times in the QCEW data. The QCEW covers approximately 97 percent of all jobs in the United States. Major exclusions from UI coverage include self-employed workers, most agricultural workers on small farms, all members of the Armed Forces, elected officials in most states, most employees of railroads, some domestic workers, most student workers at schools, and employees of certain small nonprofit organizations. OnTheMap data are based on QCEW data, but can be queried at the municipal level and smaller geographies. For the purpose of this analysis, the base year is FY 2014.

Two employment projection scenarios were created based on separate assumptions about the labor market. Scenario 3.A is the base case scenario, which assumes that insignificant structural changes will occur in the Rio Rancho labor market. It assumes that the city will maintain gains in the service sectors but that it will not attract a major new employer. This scenario also rules out another housing boom and it assumes that the manufacturing sector will stabilize, but that the sector will not experience significant growth in employment. This projection relies on over-the-year change assumptions that start at a 2.0 percent growth rate in FY 2016 and taper off to a -0.1 percent growth rate in FY 2026.

Scenario 3.B incorporates the New Mexico Department of Workforce Solutions (NMDWS) 2012 to 2022 projection for employment in the region, which assumes a compound annual growth rate of 1.4 percent. The Albuquerque MSA, Sandoval County, and Rio Rancho labor markets experienced annual percentage changes below the projection in FY 2013 and FY 2014. While employment growth has lagged during those two years, it is assumed that it will rebound more strongly and will reach the NMDWS projection by FY 2022. Rio Rancho has experienced employment gains in the healthcare and social assistance sector, and will need to build on current momentum in the sector to achieve Scenario 3.B. This scenario also relies on the assumption that Rio Rancho will attract a major new employer. The growth rate of 1.4 percent was used to project employment from FY 2023 to FY 2026. Historical employment and the two projection scenarios are shown in Chart 4.

Appendix B (continued)

Combined Employment Projections

The employment projections for the two preferred scenarios are shown in Table 7 and the compound annual growth rates are shown in Table 8. The two employment projection scenarios (3.A and 3.B) were combined to account for the uncertainty that Rio Rancho will attract a major new employer. It also accounts for continued growth in the service sectors, but assumes that growth will be limited to local demand for services. The combined employment projection scenario rules out significant employment growth in the manufacturing sector, such as a major manufacturing facility expansion. The combined average employment projections incorporating both scenarios for FY 2021 and FY 2026 are 23,062 and 23,994, respectively (Table 7). The combined projection results in compound annual growth rates from the base year, FY 2014, of 2.2 percent to 2021 and 1.6 percent to 2026 (Table 8).

Table 7: Employment Projections

Scenario	Description	2021	2026
3.A	Base Case (No structural changes to the labor market)	21,935	22,034
3.B	Rebound to the NMDWS Forecast annual growth rate of 1.4 percent	24,189	25,955
Average		23,062	23,994

Table 8: Employment Compound Annual Growth Rates from 2014

Scenario	Description	2021	2026
3.A	Base Case - No structural changes to the labor market	1.5%	0.9%
3.B	Fit to the NMDWS Forecast (1.4 percent growth rate)	2.9%	2.3%
Average		2.2%	1.6%