



LUNA COUNTY

Comprehensive Plan Update

DECEMBER 2012

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Acknowledgements

Luna County Administration

Kelly Kuenstler, County Manager
Gabriel Boyle, Planning and Community Development
Director
Jessica Johnson, Community Development Planner
Karen Smyer, County Clerk
Raymond Cobos, Sheriff
Luis Malina, Florida Mountain and Cooke's Peak Fire Chief
Randy Brokaw, Sunshine and Savoy Fire Chief
Linda Smrkovsky, Marketing and Economic Director
Marty Miller, Roads Superintendent
Judit Ortiz, GIS Coordinator
Mark Jasso, Emergency Services Director
Sonia Arteche, Emergency Manager

Luna County Commission District 1

Joe L. "Oleo" Milo

District 2

J. Jay Spivey

District 3

R. Javier Diaz

Luna County Steering Committee

Andrea Williams
Anne Shine-Ring
Bill Duncan
Danny King
David Petersen
Dudley Counce
Fred Tiedge
Joel Chinkes
Linda Smrkovsky
Matthew McReynolds
Nancy Sherman
Ricardo Molina
Rick Holdridge
Merlin Norenberg
Robert Pastran
Jerry Welch

Consultants

Sites Southwest

Albuquerque, NM, and El Paso, TX

Phyllis Taylor, AICP, Principal-in-Charge
Barbara S. Herrington, AICP, Project
Manager
James Aranda, Community Planner
Shelly Homer, Production
Susan Bucklin, GIS

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Chapter 1: Introduction/Planning Context

A comprehensive plan is an official public document adopted by a local government as a policy guide to decision-making primarily about the physical development of the community. Over time, plans have come to include policies regarding services as well. Comprehensive plans indicate in a general way how a community and its elected leaders want the community to develop over the next 20 to 30 years.

A. Purpose

The purpose of this plan is to guide Luna County's elected and appointed officials as they lead the county into the 21st Century. It helps the county to prepare for the future by anticipating change, maximizing strengths, and minimizing weaknesses. The plan sets policies that help the county address critical issues facing the community, achieve goals based on priority, and coordinate public and private efforts for mutual success. It also provides the historical context, background and current data necessary to understand issues and choose solutions as well as seek various forms of funding.

Comprehensive planning by counties is authorized by state statute. The statutes are broad and over the years have prompted the state's professional planners to develop the plans' form and content to incorporate the best of current planning practices. While guidelines define a general list of topics or elements that should be covered in a comprehensive plan, these plans take on a shape and form based on a community's resources, capacities, needs and values. As such, no two communities' comprehensive plans are alike.

This particular document updates the September 1999 Luna County Comprehensive Plan. New Mexico now requires a

comprehensive plan no more than five years old in order for counties and municipalities to be considered for state funding, particularly through Community Development Block grants. Luna County contracted with Sites Southwest, a community planning, environmental and landscape firm with offices in Albuquerque and El Paso, in spring 2012 to update the plan.

B. Planning Area

This plan covers the whole of Luna County, but also addresses regulations, facilities and services in the municipalities of Deming or Columbus when they are owned, operated, or partly funded by Luna County. Both Deming and Columbus have their own comprehensive plans. The Luna County plan does not have legal authority over federal or state land, which is plentiful in Luna County, but serves to inform managers of those lands of the County's wishes and direction.

C. Comprehensive Plan Document

This plan contains the following elements, or chapters. Each chapter discusses important issues regarding that topic and presents goals and strategies (actions) to address them.

1. **Introduction**
2. **Community Profile:** Describes the county, its history and reason for existing, demographics, government structure, and population projections for the future.
3. **Natural Resources and Environment:** Profiles the county's geography, geology and soils, vegetation, climate and precipitation, water quality, quantity and other natural resources, public and private land ownership and related issues.
4. **Land Use:** Assesses how land is currently used for housing, agriculture, industrial and commercial purposes; describes existing land use controls such as subdivision regulations; looks at liquid waste management issues, particularly in the ranchettes, and offers some solutions for the County to pursue.
5. **Housing:** Profiles the number, type and condition of housing units in the county, whether they are rented, owned or vacant, and evaluates their affordability for residents and others. It also lists the main providers of low and moderate income housing in the area, projects

the county's housing needs for the future and recommends ways to meet those needs.

6. **Economic Development:** Charts trends in jobs and gross receipts by industry in the county, major employers, and educational achievement among the population as well as school drop-out rates and household income. It also describes recent economic studies and the major organizations working on economic development in the county.
7. **Community Services and Facilities:** Describes the various social service programs facilities as well as recreational facilities supported by the County. Notes additional needs or services requested by citizens.
8. **Transportation:** Depicts the road network and describes other modes of transportation such as rail, buses, bikeways, and sidewalks and trails. Assesses the need desire for more multi-modal means of transportation.
9. **Hazard Mitigation:** This plan draws on and updates information, goals and actions in the Luna County Hazard Mitigation Plan, which is developed separately.
10. **Appendices**

D. Planning Process

Consultants and staff first met in May 2012 with the existing Public Land Use Advisory Committee (PIUAC) and a new Steering Committee established to help guide the plan development. The project team explained the content of and process for updating the comprehensive plan. Both committees provided their input in issues and concerns in Luna County that should be addressed by the Comprehensive Plan.

The 16 Steering Committee members comprise expertise from a wide range of community interests, including agriculture, small business and technology, MainStreet, medical, seniors/retirees, county staff, and both liberal and conservative viewpoints. They were instrumental in creating the initial drafts of the goals and strategies, which occurred continuously over the next several meetings in July and August. These were later refined by the staff and consultants after considering comments by the general public and interviews with county staff and other private and public stakeholders.



The project team held the first round of public meetings in late July in Deming and Columbus to elicit citizen opinions. The meetings were publicized widely through flyers, newspaper reports, radio and website announcements, and church bulletins. More than 80 persons attended the first meeting in Deming, offering comments about the county's assets, issues they would like to see addressed by the plan, and a vision for the future.

The second round of public meetings was held in at the end of August, again in Deming and Columbus, to give participants an opportunity to review and comment on the draft goals of the plan. The project team also interviewed a group of middle and high school students over pizza to get a youth perspective on plan contents.

The draft plan was posted on the County website and other places at the end of October. In November, the team held a final round of public meetings to elicit the public's comments. A revised draft was posted on the website and presented to the County Commission for adoption in December 2012.

Chapter 2: Community Profile

Luna County is 2,965 square miles in size and located in the southwestern portion of New Mexico. The County is bordered by México to the south, Doña Ana County to the east, Sierra and Grant Counties to the north, and Grant and Hidalgo Counties on the west. Deming, located along Interstate Highway 10 near the geographic center of the county, is the county seat. The only other incorporated municipality in the county is Columbus, which lies just three miles north of Palomas, Mexico, and about 30 miles south of Deming on State Highway 11. Figure 1 illustrates the county's general location and the surrounding area.

Figure 1. Location Map

August 16, 2012



A. History

The earliest inhabitants of the Mimbres River Valley region, which encompasses present-day Luna County, were the Mimbres Indians, who settled the area around 900 to 1000AD. Archeologists believe the Mimbres culture evolved from the Mogollon peoples, which themselves possibly evolved from the Anasazi or the Hohokam cultures.

Over time, the Mimbres people's settlements evolved from pit houses to above-ground pueblos. Perhaps the most famous artifact of the Mimbres culture is their pottery, with its distinctive black on white color scheme and designs that depicted animals encountered in daily life, daily routines, or geometric designs.

Today, not much is known about what happened to the Mimbres people. It is postulated that they abandoned their settlements in the valley after an extended period of drought in the 1300s and were integrated into other cultures, possibly to the south.

Spanish exploration of the area may have begun as early as 1780, when Governor de Anza led an expedition south from Santa Fe to explore possible new trade routes to the Sonora settlements of Mexico. An expedition left Mexico at the same time, hoping to meet de Anza in the Mimbres Mountains region. The groups explored the area around present day Deming, the Mimbres River, the Mimbres Mountains, and Cooke's Peak. The sought-after meeting at the Mimbres Mountains never took place and a direct trade route was left undiscovered. In 1785, Don Franco Martinez led another expedition into the area that is now Luna County. The purpose of this expedition was not to explore, but to pursue Apaches who were active in the region at that time. The expedition was unsuccessful and the Apaches remained in the area, harassing the Spanish settlers and their Anglo successors until the end of the 19th century.

In 1846, the US and Mexico entered into armed conflict in what is known as the Mexican-American War. The Treaty of Guadalupe Hidalgo ended the war in 1846. As a result of the Treaty and the Gadsden Purchase in 1853, the United States obtained the area containing present-day Luna County.

A large portion of the county was a part of the Arizona Territory in 1861, and the county seat was located at Tubac, south of Tucson.

A number of small settlements were established in the area, after mining discoveries were made. The advent of the railroads led to the development of the town of Gage, which still appears on many maps today although little sign of its existence can be found. Many other towns were also established at road and rail interchanges in the area, but they never seemed to take off and, like Gage, little sign remains of them today.

Luna County was created by an act of the New Mexico Legislature on March 16, 1901. The new County was comprised of the eastern portion of Grant County and the western portion of Doña Ana County. There is speculation that the drive to create Luna County arose from the intense rivalry between the cities of Deming and Silver City.

Beginning in 1881 legislation was annually introduced in the Territorial legislature to create a new county and separate the two cities. Finally, the local leaders of the effort secured the support of Don Solomon Luna, a prominent Republican politician in the New Mexico Territory, and a successful sheep rancher and banker from Valencia County who took up their cause in Santa Fe. With Mr. Luna's support, the effort was successful. Logan and Florida were proposed as names for the new county, but when the county was finally created it was named in honor of Solomon Luna.

While copper mining and refining have been a primary source of wealth in the surrounding area for most of the 20th century, Luna County has a proud and successful heritage in farming and ranching producing chile, pecans, cotton, melons, sweet onions, and grapes.

Luna County also has an infamous place in history as the location of the last land invasion of the United States. On March 9, 1916 Mexican revolutionary Pancho Villa and his troops crossed the US/Mexico border and looted and burned the Village of Columbus, causing many residents to flee to the desert.

United States Army soldiers at Camp Furlong defended the town with two machine guns. The fighting continued until dawn, when Villa fled back across the Mexican border. Eighteen Columbus residents and US soldiers were killed in the raid, while approximately 75 of Villa's soldiers were killed.

As a result of the raid, General John J. Pershing led a punitive expedition into Mexico to capture Villa and his troops. Villa was never caught but was assassinated seven years later.

Luna County has a total of six structures on the National Register of Historic Places. These properties are all in Deming and include:

- Deming Armory, 301 S. Silver Ave
- Seaman Field House, 304 Silver Ave
- Luna County Courthouse and Park, 700 S. Silver Ave
- Mahoney Building, 122 S. Gold
- Upton Site
- Deming Main Post Office, 201 W. Spruce St

B. Demographic Profile

This section discusses the size of Luna County's population, its racial and ethnic makeup, and the age of residents. Population projections for the County are also presented in this section for use in other portions of the plan.

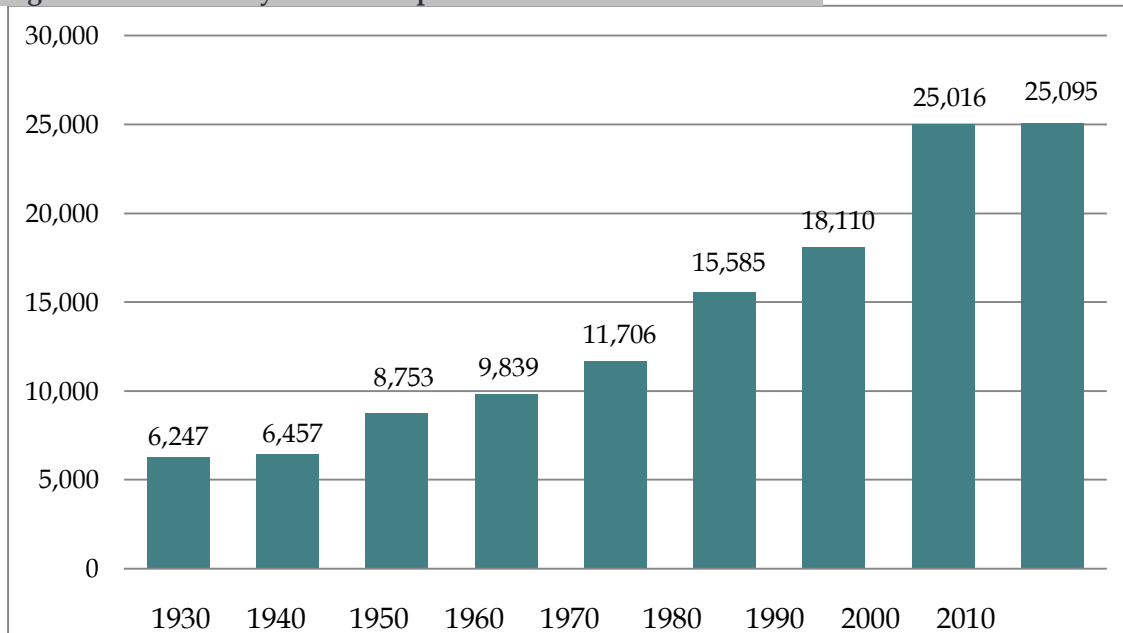
1. Current Population

As of the 2010 Census, there were 25,095 people, 9,543 households, and 6,484 families residing in Luna County. Households consist of one or more persons, while families comprise two or more related persons. The population density was 8 people per square mile, and there were a total of 11,042 housing units.

2. Population Trends

As detailed in Figure 2, Census data indicate that Luna County's population grew steadily from 1940 to 2000, then slowed in recent years.

The County saw significant population growth between 1970 and 1980, increasing by 33 percent. The time between 1990 and 2000 saw the greatest growth, an increase of 38 percent. Between 2000 and 2010, Luna County grew by only 0.31 percent.

Figure 2. Luna County Historic Population

3. Race and Ethnicity

In 2010, over 97 percent of Luna County residents were either non-Hispanic White or Hispanic of any race, while Black/African Americans, Native Americans, and Asians made up the remaining 1.8 percent of the population. The Hispanic community is by far the fastest growing segment of the city's population. Between 1990 and 2010, the share of Luna County's population that is Hispanic increased from 48 to 61 percent; while the White/non-Hispanic population share fell proportionately.

New Mexico as a whole is more racially and ethnically diverse than Luna County. In 2010, 40 percent of the State's population was non-Hispanic White, while Hispanics of any race represented 46.3 percent of the population. Native Americans accounted for 8.5 percent, Black/African Americans for 1.7 percent, Asians for 1.3 percent, and other races for 1.7 percent of New Mexico's population. Table 1 illustrates a more detailed racial/ethnic composition of Luna County and New Mexico.

Table 1: Race and Ethnicity for Luna County, Eddy County and New Mexico (2010)

Race/Ethnicity	Luna County		New Mexico	
	Number	Percent	Number	Percent
Hispanic/Latino (any race)	15,423	61.5%	953,403	46.3%
White (non-Hispanic)	8,997	35.9%	833,810	40.5%
Black/ African American	189	0.8%	35,462	1.7%
Native American	144	0.6%	175,368	8.5%
Asian	112	0.4%	26,305	1.3%
Native Hawaiian/Other	2	0.0%	1,246	0.1%
Some Other Race	33	0.1%	3,750	0.2%
Two or More Races	195	0.8%	35,462	1.7%

Source: 2010 US Census

4. Persons per Household

Luna County had an average of 2.56 persons per household in 2010-- higher than the State as a whole, which had an average of 2.55 persons per household.

5. Comparative Age

Luna County's population had an older median age in 2010 than the population in the state as a whole. The median age of Luna County's population was 39.5 years in 2010, which was 2.8 years more than for the state (36.7 years).

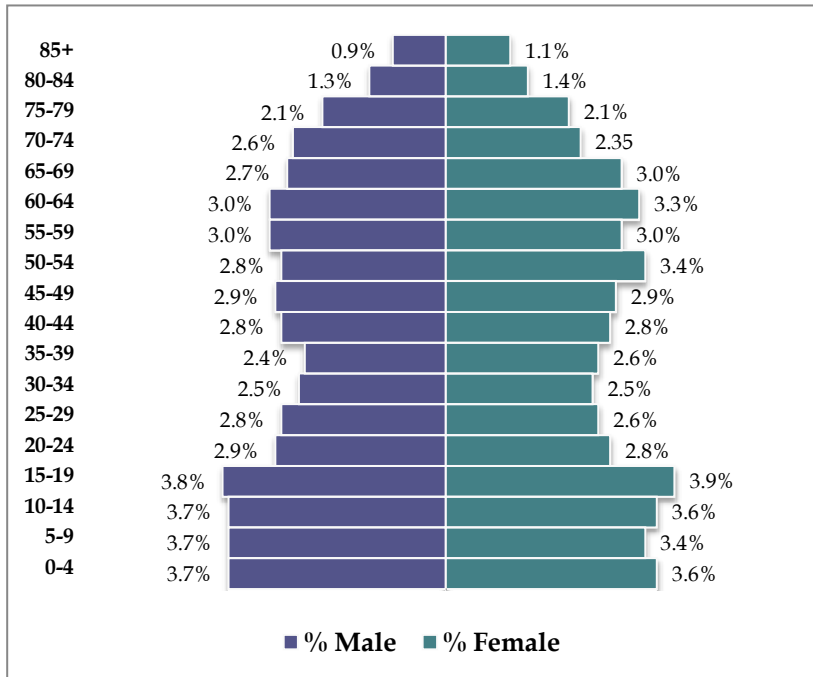
6. Age Distribution

As seen in Figure 3, the age distribution of Luna County's resident's remains relatively balanced, with a stable population of children and a typical decline in the senior population. When compared with New Mexico's age distribution, it appears that Luna County's population is in line with the State trend but has a higher percentage of seniors aged 60 and older.

Baby boomers born between 1946 and 1965 were 45 to 64 years of age in 2010, totaling 6,147 residents, or approximately 24

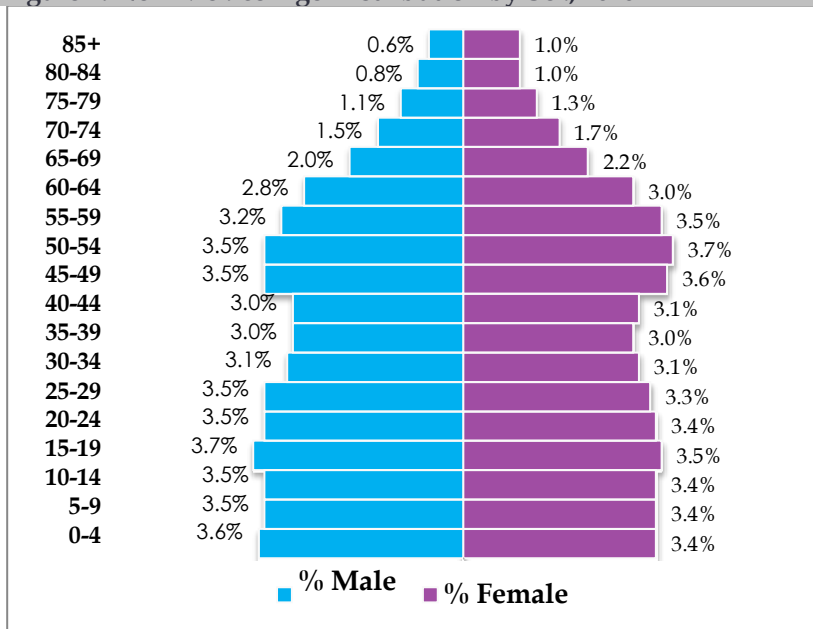
percent of the Luna County population. Youth ages 19 and younger represent another significant portion of Luna County's population, 7,378 persons or 29 percent of the total population.

Figure 3. Luna County, Age Distribution by Sex, 2010



Source: 2010 US Census

Figure 4. New Mexico Age Distribution by Sex, 2010



Source: 2010 US Census

Another notable characteristic of Luna County's age distribution is the relatively small population of residents ages 20 to 40. The State as a whole reflects this trend as well. This can be due to a number of factors, including the smaller population of cohort groups that compose Generation X. It also indicates that some young adults are leaving Luna County (and New Mexico for that matter), possibly for education and jobs elsewhere.

7. Educational Attainment

Luna County's current population has a slightly lower educational attainment rate than the State as a whole. Thirty percent of Luna County's population 25 years and older do not have a high school diploma, while 29 percent do. Twenty-two percent have some college, while 4 percent have an Associate's Degree. Only 15 percent of the 25-years-and-older population in Luna County has earned a Bachelor's degree or higher, compared to 25 percent in New Mexico as a whole.

Table 2: Educational Attainment

Population 25 years +	Luna County	New Mexico
No high school diploma	30%	17%
High school graduate	29%	26%
Some College	22%	25%
Associate's Degree	4%	7%
Bachelor's Degree	9%	14%
Graduate or Professional Degree	6%	11%
Total:	100%	100%

Source: 2010 US Census

8. Household Income

As detailed in Table 3, the American Community Survey reports that Luna County had a median household income of \$27,997 in 2010. A more detailed discussion of Luna County's income in comparison to the state is included in the Economic Development element.

Table 3. Household Income

Income Range by Household	Number	Percent
Total Households	9,204	(x)
Less than \$10,000	1,710	18.6%
\$10,000 to \$14,999	903	9.8%
\$15,000 to \$24,999	1,594	17.3%
\$25,000 to \$34,999	1,484	16.1%
\$35,000 to \$49,999	1,130	12.3%
\$50,000 to \$74,999	1,451	15.8%
\$75,000 to \$99,999	440	4.8%
\$100,000 to \$149,999	304	3.3%
\$150,000 to \$199,999	76	0.8%
\$200,000 or more	112	1.2%
Median household income	\$27,997	(x)
Mean household income	\$39,669	(x)

Source: 2008-2010 American Community Survey 3-Year Estimates

9. Population Projections

Although Luna County has experienced a relatively low rate of growth between 2000 and 2010, the potential for greater population growth does exist. Factors that can contribute to growth include the following:

- Increase in regional commerce locating to Luna County
- Retirement in-migration
- Increased birth rate

It is possible that these growth sectors may bring additional jobs and residents to Luna County. While there is a trend for growth to occur in the County's incorporated municipalities, it is reasonable to expect that a portion of the additional residents projected for Luna County in 2030 will reside in the unincorporated county. Utilities, public safety, and other services offered by the County can also play a role in potentially attracting a larger number of new residents to the city than occurred during the last decade.

UNM's Bureau of Business and Economic Research previously projected Luna County's population to grow at a rate of 2.2 percent annually during the period of 1990-2000 and beyond. Based on this rate, Luna County's population should have reached 31,640 in 2010. However, as noted above, the latest US Census Bureau data shows 2010 population of Luna County to

be 25,095. Furthermore, the growth rate between 2000 and 2010 was only 0.31 percent. Therefore, the actual population growth in Luna County did not keep pace with the projections made in 1994.

Assuming a substantial reduction in immigration from Mexico over the next decade and the current economic downturn, it appears that annual average population growth in Luna County will remain at about 1 percent. Over the following decade, growth in the area may increase due to improved stability in immigration from Mexico and influx of retired individuals. However, it is unlikely that growth rates of over 2 percent will occur. Therefore, a growth rate of about 1.5 percent is possible during the 2021 to 2031 decade. Based on these assumptions, an annual average growth rate of 1.2 percent is most appropriate for estimating Luna County's 2031 population.

Thus, with a growth rate of 1.2 percent, it appears that the total population of Luna County (including Deming and Columbus) will reach about 31,140 in 2030.

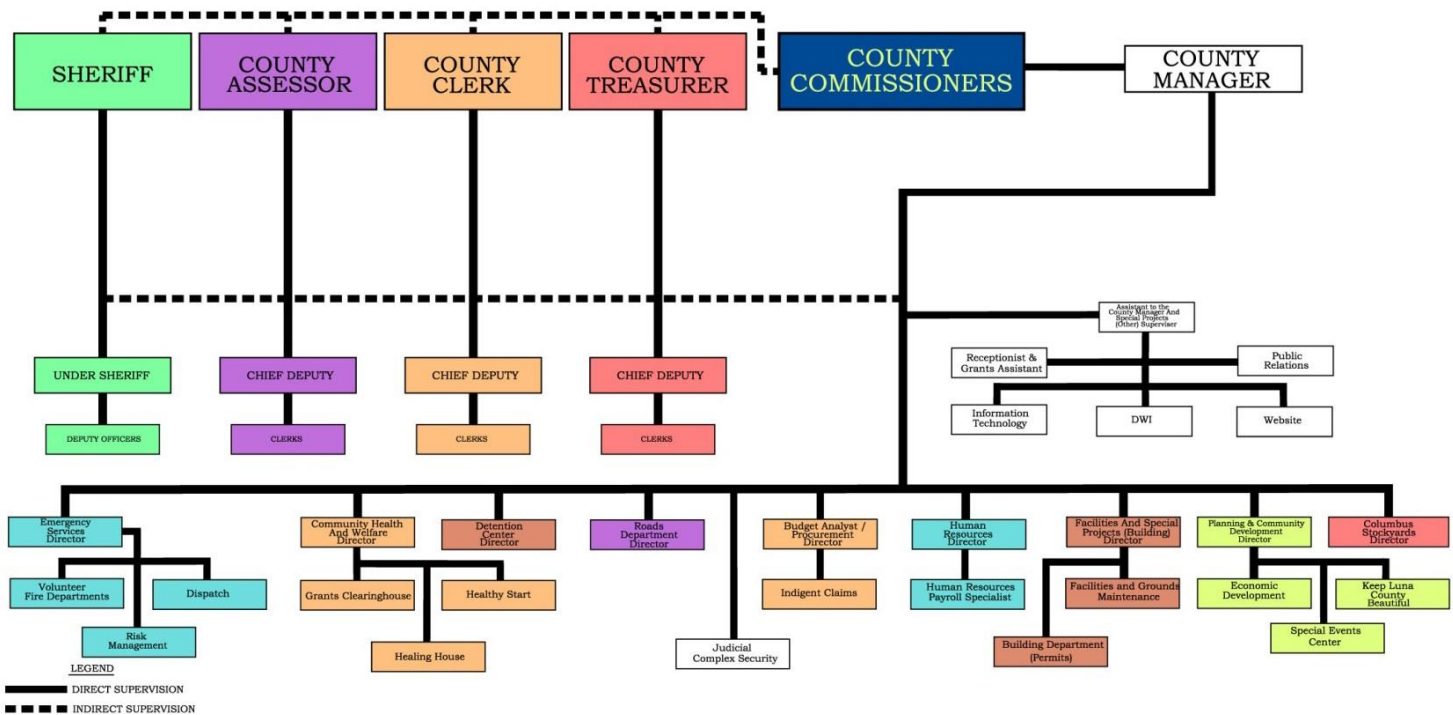
C. Government Structure

Luna County is governed by a three-member elected County Commission. Day to day operations are administered by a County Manager, who is appointed by and reports to the Commission. Other elective offices include the Treasurer, Assessor, Clerk, Sheriff, and Probate Court Judge.

As of November 2012, the County employed a total 223 people, eight of whom worked part-time. The organization of County departments has evolved in response to changing needs, sometimes through reorganization and, when necessary, through the addition of new staff.

Within the years, the County has added positions of Community Development Director, Planner, Special Projects Coordinator, Fire Marshal, and Juvenile Detention Center Director. Figure 5 details the organization of County departments and staff.

Figure 5. Luna County Organizational Chart



D. Provision of Services

Luna County provides some services directly, contracts with the City of Deming for the provision of other services. Additional services are also provided to county residents by private entities. The manner of service delivery needs to be regularly assessed to determine if and when it would be advantageous for Luna County to accept additional responsibilities, alter or discontinue its existing services, or enter into new arrangements.

1. Public Safety

Law enforcement services for the County are provided by the Sheriff's Department, which is headed by an elected Sheriff and is staffed by 38 employees. Emergency Medical Service (EMS) is provided through contracts with the Village of Columbus and the City of Deming.

In addition to the municipal fire departments in Deming, Luna County is served by five additional volunteer fire departments — Cooke's Peak, Florida Mountain, Sunshine, Savoy and Columbus. Because volunteer departments face continual problems with recruitment, training and retention, the dependence on volunteer fire departments and mutual aid

from the city of Deming will not suffice as the population of the county continues to grow.

2. Solid Waste

Luna County pays \$120,000 per year toward the operation of the City of Deming's Transfer Station so that County residents can use these facilities on the same terms and conditions as City residents. The County operates solid waste collection points at various locations throughout the County to encourage County residents to properly dispose of their refuse. According to the County's Service Agreement with the total tonnage from the convenience stations is not to exceed 1,500 tons. If that amount is exceeded, the County will pay an additional fee of \$25.00 per ton. In addition, the County currently provides in-kind services in the form of labor and equipment toward the closure of the 4th Street Landfill. The City provides the County access to the Transfer Station on Saturdays and Sundays for disposing of dumpsters collected from the convenience locations throughout the County, in exchange for this service, the County agrees to keep the convenience stations open 6 days a week including Saturdays and Sundays.

E. County Government Operations Goals

Goal 1. Continue to improve transparency in County government.

Goal 2. Maintain a balanced budget and financial sustainability.

Chapter 3: Natural Resources and Public Land

Luna County's natural resources and vast amount of open public land have been the bedrock of its farming and ranching culture and history.

It will also exert a strong influence on its future as renewable energy producers look for open areas of land on which to collect and transmit solar and wind power, immigrants seek work in food harvesting and production, and seniors seek a quiet and beautiful place to retire.

A. Existing Natural Resources and Conditions

1. Geography

Luna County lies at an average elevation of 4,335 feet above sea level. It features three mountain outcrops that compose the southern extension of the Rocky Mountains: Cooke's Range in the north, the Florida Mountains on the southeastern side of Deming near the center of the county, and the Tres Hermanas Mountains in the southern part of the county near Columbus.

The Florida Mountains are approximately ten miles long and five miles wide, and reach heights of 7,448 feet, while Cooke's Peak, located in the northern part of the county, rises to an altitude of 8,408 feet. Tres Hermanas appears as three distinct peaks in the south-central section of the county. The 29 smaller mountains that lie within the county include Cedar Hills in the southwest, Good sight Mountains in the northeast, Victorio Mountains south of Gage, Grandmother Hills north of Gage, Red Mountain southwest of Deming, and Black Mountain northwest of Deming.



Florida Mountains

The Mimbres River, which originates in the mountains north of Luna County, provides the principal drainage for the region. It is an intermittent stream that remains dry except for short periods following rainfall. Not since 1906 has the river flowed as far south as the Mexican border. At times it has been known to reach a crest of 10 to 15 feet and overflow the lower lands adjoining its channel. Most of the water goes into the ground and helps to recharge the underground basin. The Palomas Arroyo drains the central and western part of the county.

Wilderness Areas

Part of the Protrillo Mountains and the Whitehorn Wilderness protrude into Luna County. Extinct volcanoes, black lava fields, and miles of desert grassland combine to give the West Protrillo Mountains qualities found nowhere else in the state. Motorized equipment and mechanized transportation are generally prohibited within wilderness areas except for emergencies, grazing and security purposes. Hunting, fishing, grazing, foot travel, horseback travel, and the use of any type of wheelchair are allowed.

The Protrillos are part of a bill reintroduced in Congress by New Mexico Senators Jeff Bingaman and Tom Udall in 2011 – the Organ Mountains – the Desert Peaks Conservation and Protection Act – to protect over 400,000 acres of wild lands primarily in Dona Ana County as Wilderness and National Conservation Areas. Its earlier incarnation passed Congressional committees in 2010, but failed to be voted into law in the final days of gridlock in the 111th Congress. The Act proposes to protect the most iconic landscapes in Southern New Mexico: the Organ Mountains, Potrillo Mountains, Aden Lava Flow, and Broad Canyon, among other landmarks.

2. Geology and Soils

Information from this section comes from the 1967 USDA Soil Survey for Luna County. There are four major geomorphic areas in Luna County: the mountain uplands, piedmont slopes, basin floors and a belt of windblown (eolian) sand. Scattered mountain ranges, peaks ridges and hills form the upland part of the county. A large variety of bedrock is exposed in the upland areas. Sedimentary rocks are dominantly limestone and some sandstone and shale. Acid to intermediate igneous intrusive and metamorphic rocks are mainly granite, granodiorite, monzonite, gneiss, schist, and quartzite. Volcanic rocks are acid, intermediate, and basic in

composition. They are mainly andesite, latite, rhyolite, and basalt flows and tuff. Shallow gravelly or stony soils form in volcanic rock material. Also typical are Lozier and Lehman soils, which are shallow, well-drained soils, formed in materials derived primarily from acid igneous rock. They are used primarily for livestock grazing, wildlife, and watershed.

The mountainous areas of the county are surrounded by belts of varying widths. These belts comprise several ages of eroded surfaces that slope toward the relatively flat floors of broad intermountain basins. They are the piedmont slopes. Soil characteristics there are influenced by the kind of parent rock, the age and stability of the surface, and the percent slope. Nickel and Luxor soils are typical of these areas and used mainly for livestock grazing, wildlife and watershed.

The bolson, or floor of the basin, shows evidence of several ages of alluvial deposits near the mouth of the Mimbres River system. The bolson is a broad, nearly level area that occupies most of Luna County. The porous formation of the valley fill forms a large underground reservoir in which water has been stored through geologic time. Depth to the bolson varies, but is known to be at least 4,000 feet in some areas. Soils that form in this area are influenced by the mineralogy, texture and structural properties of the parent material; the age of the various basin floor surfaces and deposits and the effect of past flooding or a high water table. Hondale and Mimbres soils are typical of this area and are used for irrigated crops, livestock grazing, wildlife and watershed. It is these soils in which irrigated agriculture is located, south, west and east of Deming; southeast of Nutt; along the Mimbres River and east and west of Columbus (see Figure 8). Conserving these soils for growing food may become more and more important in the future as food prices and transportation costs rise.

A narrow north-south oriented belt of windblown sand occupies the transition zone between the basin floor and the piedmont slopes in the southeastern part of the county. Its location on the lee side of the lowest part of the bolson floor suggests that it could have been removed from the basin floor and then re-deposited. Dune Land-Pintura complex formed in this material. Found mainly in the eastern part of the county, it is used for wildlife habitat.

Rockhound State Park

Some 1,100 acres in the Little Florida Mountains were established as Rockhound State Park in 1966 (McLemore and Dunbar 2000). It was the first park in the US to allow collecting of rocks and minerals for personal use (15 lbs. each). Among the more common rocks and minerals found in the park are gray perlite, geodes, thundereggs, jasper, onyx, agate, crystalline rhyolite, obsidian, and quartz crystals. Agate is also present in a wide range of colors, some in geodes and thundereggs. Geodes are hollow or nearly hollow crystal-lined cavities found in igneous and sedimentary rocks. Thundereggs or spherulites are solid or nearly solid nodules made of radial crystals extending from the center. They are formed during volcanic processes and range in diameter from a quarter inch to a foot. Concretions are compact accumulations of minerals cemented together to form hard masses in sedimentary rocks. They can be any shape and size, whereas geodes and spherulites are typically rounded to slightly ovoid (McLemore and Dunbar 2000).

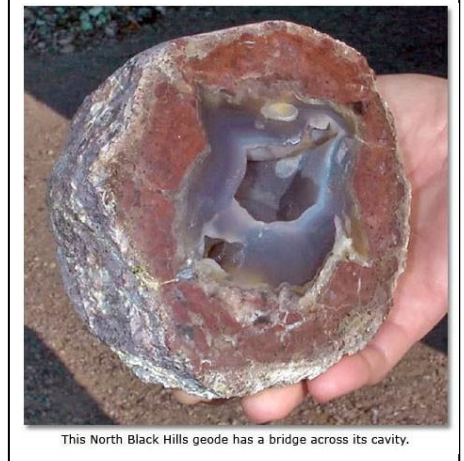
3. Vegetation and Wildlife

Situated at the southern end of the Rocky Mountains and northern end of the Chihuahuan Desert, the vast majority of Luna County's vegetation is grassland or desert scrub. Mesquite and creosote bushes are found in the lower plains, while pinon pines and scrub oaks are found at higher elevations. Cottonwoods and desert willows grow in the lower areas where the water table is close to the surface. Rabbit brush, desert grasses and cacti are common throughout the county.

Wildlife species found include coyotes, rabbits, javelinas, quail, and ibex (Luna County 1999).

4. Riparian Areas and Floodplains

Riparian areas are the transitional zones between aquatic and upland environments—basically the land area along the banks of rivers, streams and lakes. They are particularly important in the southwestern United States because while they occupy less than 2 percent of the landscape, they support a greater diversity of plants and animals compared to the uplands. In the Southwest, a large portion of all wildlife spends some part of its life in riparian habitat. They are important areas for farming and ranching due to the productive soils found in



This North Black Hills geode has a bridge across its cavity.

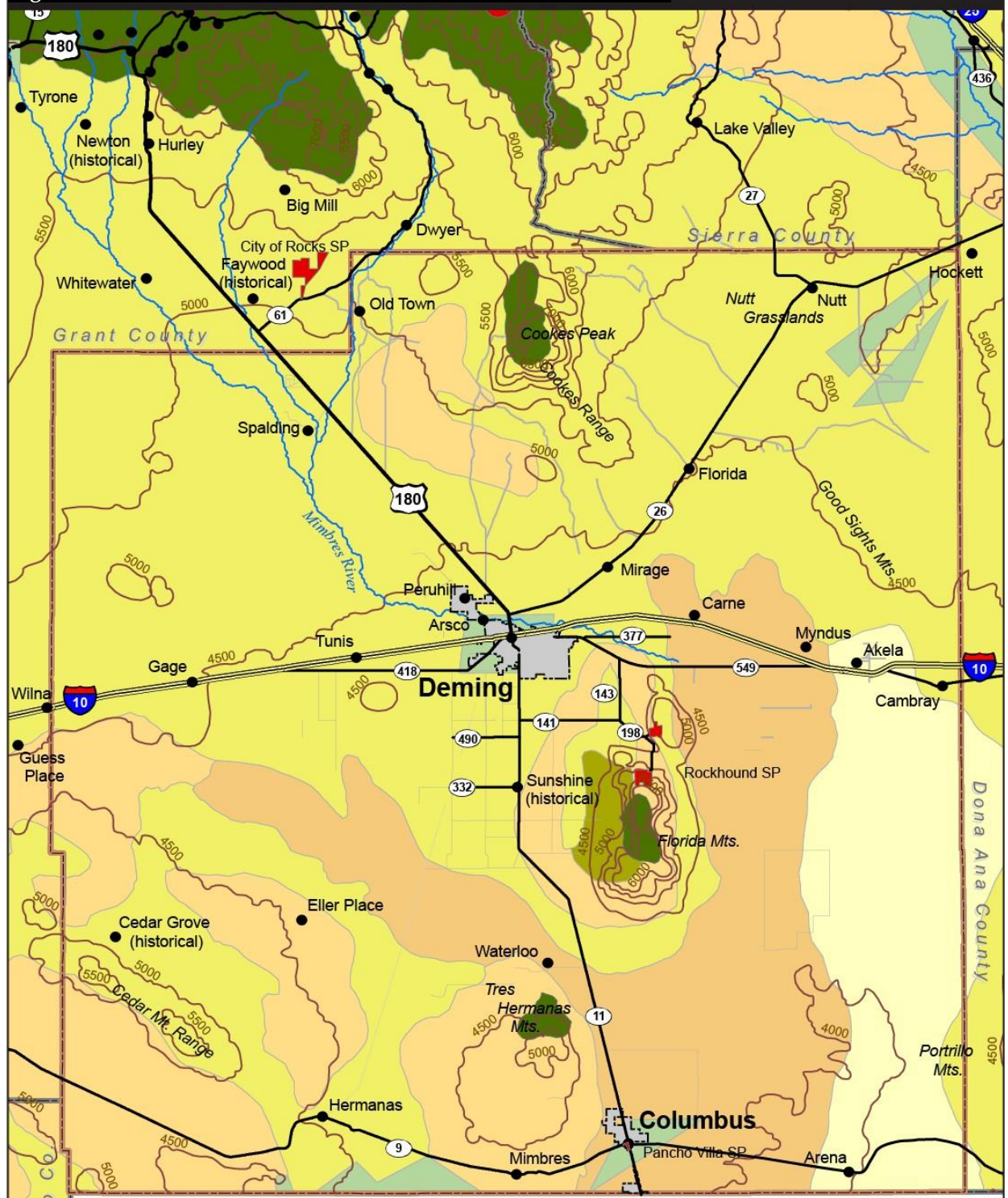
historical floodplains and the access to water for irrigation. Livestock producers value riparian habitat for its proximity to water and the diversity, quantity and nutritional value of forage found (NMSU 2011). The main riparian area in Luna County is along the Mimbres River, which flows south from the Mimbres Mountains as a perennial river and becomes ephemeral by the time it reaches the city of Deming.

Riparian areas are part of flood plains, normally dry land areas that are temporarily inundated by water from the overflow of inland waters such as rivers and lakes or by runoff of surface waters from rainstorms. Luna County has a natural system of arroyos, streams and rivers that that can carry off and drain accumulated rainfall. Some of the rainwater and snowmelt infiltrates the ground and returns to the aquifer through recharge. This is estimated to be no more than two percent of the precipitation that falls across the area, however.

To minimize damage and maximize recharge, Luna County should continue to map 100-year flood plains (land that has a 1 percent chance of flooding each year) and prevent building in those areas. It could also promote low impact development or redevelopment practices. This is an approach to land planning that manages stormwater as close to the source as possible, minimizes impervious surfaces, and facilitates the natural movement of water within an ecosystem or watershed. Some practices that incorporate these principles include bioretention facilities, rain gardens, vegetated roofs, rain barrels and permeable paving. Slowing water movement in arroyos, ponds, and other areas can also allow time for the water to percolate into the soil.

Figure 6. Land Cover

October 23, 2012



Source: RGIS

All data has been obtained from public sources and no warranty is made to its absolute accuracy

LEGEND

Chihuahuan Desert Scrub
Closed Basin Scrub
Plains - Mesa Sand Scrub
Desert Grassland

Farmland
Montane Scrub
Coniferous and Mixed Woodland
New Mexico State Park

Luna County Roads
Contour lines - 500 ft.
Incorporated Boundary
Luna County Boundary
County Boundary

Prepared by:



5. Climate and Precipitation

The climate in Luna County reflects the desert extremes of hot, sunny days and cool, crisp evenings, combined with low levels of humidity. As seen in Table 4, there are four gauges in Luna County that record temperature readings. Over the eight decades from 1914 to 2001 the average yearly temperature for the Deming area was 60.3 degrees F. with an average range of 44 degrees to 76.5 degrees F (SWRWP 2005). Later data from 1981 to 2010 in Deming shows the averages edging up slightly (WRCC 2012). Average temperatures tend to be higher in Columbus and lower in the Florida Mountains. Below zero readings are rare. The county has a long growing season with the average freeze-free season being more than six months, extending from mid-April until November (SCS 1967).

Table 4: Temperatures at Representative Climate Stations in Luna County (degrees F) 1914-2001

Station Name	Annual Average	Annual Average Minimum	Annual Average Maximum	% of Possible Observations
Columbus	62.5	46.7	78.2	74%
Deming*	60.3 (61)*	44.0 (44.5)*	76.5 (77.5)	81%
Florida	59.0	40.9	77.0	76%
Gage 4 ESE	10.4	2.84	19.01	93%

Source: SW Regional Water Plan, Western Regional Climate Center web site

* Temperatures in parentheses for Deming are from 1981-2010

Precipitation over the same time period from 1914 to 2000 averaged 9.44 inches a year in Deming with slightly more in Columbus, the Floridas, and Gage 4 ESE. The range, however, varied considerably, with annual minimums close to 3 inches in Deming and Columbus and annual maximums from 16 to 22 inches (See Table 5:). More than half the precipitation falls during July, August and September, mostly during brief but occasionally heavy showers and thunderstorms (SCS 1967).

Table 5: Precipitation at Representative Climate Stations in Luna County (inches) 1914-2001

Station Name	Annual Average	Annual Minimum	Annual Maximum	% of Possible Observations
Columbus	9.60	3.37	16.10	77%
Deming	9.44 (10.24)	2.76	22.01	87%
Florida	10.15	3.88	18.72	93%
Gage 4 ESE	10.40	2.84	19.01	93%

Source: SW Regional Water Plan, Western Regional Climate Center web site

* Precipitation in parentheses is from 1981-2012

Climate Change

Climate is commonly thought of as the expected weather conditions at a given location over time. In Spring 2010, the National Academy of Sciences (NAS), a private, nonprofit society of distinguished scholars engaged in scientific and engineering research, released three reports reconfirming that climate change is occurring, is caused largely by such human activities as burning fossil fuels and destroying rainforests, and poses a significant threat to public health and the environment. (www.nasonline.org, accessed 11-19-2012). The NAS was established by President Lincoln in 1863 to provide independent advice to the government on matters related to science and technology.

Evidence of climate change specific to New Mexico has been investigated and summarized by Dr. David Gutzler, professor of meteorology and climatology at the University of New Mexico in Albuquerque (Gutzler 2007). New Mexico's climate is now warmer than at any time during the past century, according to research reviewed by Dr. Gutzler. "Rapid warming has occurred year-round since the 1960s and continues today – with an increase of roughly 2 degrees F in the cold season and nearly 3 degrees F in the warm season since that time. These warming trends are more than twice the annual global average trend, which was about 1 degree F over the entire 20th century." Utility companies have also observed this trend. Annual HDD accumulations (heat degree days – the number of degrees that the average daily temperature is colder than 65 degrees F) have been decreasing due to warmer winters. Annual CDDs (cooling degree days – the number of degrees that the average temperature is warmer than 65 degrees) are also increasing, due to warmer summers. These values have changed by more than 15 percent since the mid-20th Century. "Winter heating needs are diminishing in New Mexico, but the energy required for summer cooling is going up fast," Gutzler wrote.

Gutzler and the majority of the scientific community attribute this faster warming trend to increasing greenhouse gas concentrations in the atmosphere, although a small percentage of scientists are skeptical. Including these effects is "the only way to correctly reproduce the late 20th Century warming trend," Gutzler states. How would this affect New Mexico in the future? Applying a mid-range greenhouse gas emissions scenario and taking the average of 18 global model predictions forecasts a temperature increase across the state of more than 5 degrees F in the winter and about 8 degrees F in the summer

by the end of the century. Current scientific research is now focused on how much and how fast the climate will warm. How this might affect water resources will be addressed later in this chapter.

Trends and predictions for annual precipitation are less clear. Tree-ring records indicate that the Southwest has alternated between decades of drought and wet spells for many centuries (Gutzler 2007). A warmer climate leads to an increase in evaporation during spring and summer and to decreases in soil moisture. It also promotes the potential for very intense precipitation events. Thus more variability and extreme conditions are predicted: more severe droughts, more severe weather, and worse flooding. The recent set of climate predictions from the Intergovernmental Panel on Climate Change (IPCC) shows “an ominous downward trend in total winter precipitation across southwestern North America, including New Mexico.” (Gutzler 2007, IPCC 2007).

6. Water Quantity

Having a sufficient quantity of water is a key variable in a county's water supply.

Luna County water supplies and demands were documented in the Southwest New Mexico Regional Water plan (SWRWP 2005), of which Luna County is a part. The dominant surface and ground water resource in the county is the Mimbres Basin, a closed water basin which covers nearly all of Luna County except for the northeast corner (Nutt-Hocket Basin) and the southwest corner (Hachita-Moscós Basin). The only perennial stream in the basin is the Mimbres River, which flows south from the Mimbres Mountains and becomes ephemeral by the time it reaches the City of Deming.

Groundwater in the basin generally flows from the northern highlands toward the US-Mexican border. Ground water development has caused a local reversal in the flow direction across the border, however, and it currently flows from the south to the north in the vicinity of the Village of Columbus. Recharge to the basin is primarily from rainfall and mountain snowmelt, and is estimated to be no more than two percent of the precipitation that falls across the area. This totals to somewhere between 25,000 acre-ft to 63,145 acre-ft per year. A liberal estimate of remaining good quality water in the Mimbres Basin is 30.06 million acre-ft, although economic and legal constraints limit its availability for future needs of the region. Well capacity decreases with depth; it ranges from 13

to 17 gallons per minute (gpm) per foot in wells completed within 330 feet of the ground surface and drops to 7 to 9 gpm per foot in those completed below 660 feet of ground surface.

Deming well field: This has 12 active wells and is located in the vicinity of some of the deepest basin fill deposits (over 4,200 feet) found in the Mimbres Basin. Current depth to water in these wells is 55 feet to 140 feet bgs (British Gravitational System). Drawdown estimates indicate that the water table will decline on average by approximately 1.75 feet per year between 2000 and 2060. Of the 12 wells, 10 should retain at least a 100-foot water column. Predictions are that the well field is likely to meet demand through the year 2060.

Columbus well field: This contains three active wells in the area where basin fill ranges from 550-1,000 feet thick. Depth to water ranges from 109 to 149.5 bgs. Draw down estimates indicate that water levels will decline on average by about three feet per year between 2000 and 2060. It is predicted that the well field will not be capable of meeting demand by the year 2040.

Irrigation wells: The County likely contains well over 1,000 irrigation wells. Data available for 966 irrigation wells indicates the average water column is 258 feet. Estimates are that water levels have declined by as much as 200 feet since 1935 in some parts of the Mimbres basin, but that most wells could be deepened enough to maintain production through 2060 (SWRWP 2005). As levels decline, however, ground water becomes more expensive to pump, making it less economically feasible to irrigate with ground water in the future.

As of 2000, irrigated agriculture was the largest water user, accounting for approximately 95 percent of water consumption in the county (SWRWP 2005). While the amount of acreage with irrigation rights reportedly has been as high as 73,950 acres, the Natural Resources Conservation Commission indicated that only about 32,000 acres were irrigated in 2000. The large majority of farms now use drip irrigation.

Effects of Climate Change

How climate change might affect projections about the water supply depends to some degree on how Luna County responds to these challenges. The County is already mining the aquifer (using more water than is replenished by recharge) and is predicted to run short of needed water supplies

between 2040 and 2060, depending on location. If demand for water increases due to rising temperatures – for example, by plants needing more water – it could accelerate the rate of aquifer decline. Conserving water by using drip irrigation and drought-tolerant native plants for landscaping, however, is helping to mitigate the predicted effects of the warming trend. Re-using gray and black water would also extend the water supply.

There is less scientific consensus about how global warming will affect future precipitation rates as there is no clear trend in annual precipitation in the 20th Century record (Gutzler 2007). Snowpack is predicted to be less and to melt sooner. Increased evaporation and warmer surface temperatures create the potential for very intense precipitation events; subsequently making flash floods are more likely. The County should be prepared to deal with these by using green infrastructure and low impact development to protect against flood hazards, protect water quality and capturing more water for recharge.

Arizona Water Settlement Act 2004

This act derived from a 1964 US Supreme Court decree in the *Arizona v. California* case which impacted the future of the Gila Basin in New Mexico, as it is a tributary of the Colorado River. Disagreements with the outcomes in that case led to the Arizona Water Settlements Act of 2004 (AWSA), which resolved many remaining water use disputes. The Act allows New Mexico additional water from the Gila system through an exchange with Arizona as well as significant federal dollars to fund projects that meet water supply demands in the four counties of Luna, Grant, Hidalgo and Catron (New Mexico First 2011).

The Gila River originates in western New Mexico and runs through three counties before the majority of it flows into Arizona. It meanders through the Gila Wilderness and is one of the state's last remaining rivers without a dam or major diversion. In addition to providing wildlife habitat and recreation, the Gila River and its tributary, the San Francisco River, provide irrigation for Grant, Catron and Hidalgo Counties. Factors that will affect the amount of water the region may need in the future include modest population and economic growth, climate change, the types of agriculture irrigation techniques, and industries such as mining and renewable energy, particularly wind and solar.

The AWSA allocated up to an annual average of 14,000 acre-ft of water in any 10-year consecutive period, and funding from \$66 million to \$128 million for water projects to benefit the four southwest NM counties. Specifically, the Act allows the Secretary of the Interior to contract with water users in New Mexico for this additional water from the Gila, its tributaries and underground water resources for consumptive water use (water used but not returned to the river system). To receive this additional water, New Mexico must pay the Central Arizona Project (CAP) to assure delivery of an equal amount of exchange water to downstream users of the Gila. These costs remain to be calculated.

Federal funding for the water projects starts at \$66 million for proposed projects that meet water supply demands in the Southwest Water Planning Region. If the state decides to build a diversion, storage or delivery project that triggers a water exchange with Arizona, it may access up to \$62 million more for construction costs. Water users who contract for the water will be responsible for construction costs that exceed the \$128 million potentially available.

New Mexico has until December 31, 2012, to notify the Secretary of the Interior about plans to consume water from the Gila Basin. Plans must comply with the National Environmental Policy Act (NEPA), the Endangered Species Act, and other relevant environmental regulations. A Record of Decision must be completed by 2019.

The NM Interstate Stream Commission is administering the compliance with this opportunity in New Mexico. It held more than 100 public meetings over seven years. In 2011 the ISC solicited and evaluated proposals for projects, with stakeholder input, through Tier I and Tier II processes and is now completing legal and technical reviews. Three of five projects proposed in Deming/Luna County survived the initial evaluation processes and were sent forward for further investigation, assessment and refinements. The successful proposals were:

Deming Diversion Proposal - This project proposes to divert water from the Gila River during higher flows and convey it through pipes to a side canyon surface reservoir for equalization storage. It would then be pumped up to the elevation divide, where it would gravity flow down to Luna County users. The proposal would allow several communities, including Silver City-Bayard area – to access the additional surface water by connecting to the pipeline.

Luna Ditch Proposal – This five-phase project proposes to construct a permanent partial diversion structure for the Luna Irrigation Ditch and convert the currently seven miles of unlined ditch to a lined ditch or pipeline. Water for the ditch is stored at Luna Lake in Apache County, AZ, and operated by the Luna Irrigation Ditch Association. Stored water is released from the reservoir to flow down the San Francisco River to the diversion point when irrigation water is needed in Luna. Diversion currently is accomplished on a temporary basis by using heavy equipment to enter the active river channel and push up a dam of rock and sediment, diverting the water into the head of the ditch. Lining the ditch or installing a pipeline is estimated to improve efficiency of water capture by 50 to 90 percent.

Deming Wastewater Reuse Project – Deming currently expends about 20 percent of its annual water consumption on irrigating parks and recreational facilities. It currently uses reclaimed water from the City's wastewater effluent recycle and reuse system to irrigate the City golf course, the cemetery, and City-owned farmland. This project proposes to extend the reuse system to include additional parks and athletic fields.

These projects will continue to be evaluated and perhaps combined or refined to arrive at the final projects to be submitted to the Secretary of the Interior in 2014. ISC will continue to seek public input, host quarterly public informational meetings, and further develop its AWSA website to provide public access (Maas 2012).

7. Water Quality

Having water of sufficient quality for its intended uses – whether for drinking, showering and laundering, irrigation or watering livestock – is the other part of the water supply equation. Where drinking water supply options are limited, impairment of water quality can be a significant and expensive problem to solve (SWRWP 2005).

Surface water in Luna County, where present, is generally of good quality, although several reaches of the Upper Mimbres watershed were listed by the NM Environment Department in 2002-2004 as not meeting or not expected to meet water quality standards under the federal Clean Water Act. States are required to prioritize their listed waters for development of total maximum daily load (TMDL) management plans. These documents the amount of a pollutant a water body can assimilate without violating a state water quality standard and

allocate load capacity to known point sources and nonpoint sources at a given flow. No TMDL have been completed for listed streams in the Upper Mimbres, although some are expected to be completed by 2017.

Concerns about groundwater quality exist due to septic tank discharges in Luna County, particularly in the Deming area. Septic systems are generally considered a nonpoint source of pollution because they are spread out over rural areas. Septic tanks and other on-site domestic wastewater disposal methods “constitute the single largest known source of groundwater contamination in New Mexico” (SWRRWP 2005, NMWQCC 2002). Septic system discharges can percolate rapidly to the underlying aquifer and increase concentrations of the several contaminants: total dissolved solids (TDS); iron, manganese and sulfides (anoxic contamination); nitrate; potentially toxic organic chemicals; bacteria, viruses, and parasites (microbiological contamination) (SWRWP 2005).

Other groundwater pollution issues include (SWRWP 2005):

Salinity problems, which occur north of Deming and worsen toward the southeast part of the county, where the water is too saline for some types of agriculture.

Chlorinated solvents in the Deming area, which may be due to industrial operations.

Arsenic, an inorganic constituent that occurs naturally in groundwater but may be of concern to Luna County due to a reduction in the federal maximum contaminant level (MCL) that became effective in January 2006. Naturally occurring regional groundwater commonly exceeds the newer 10-microgram per liter MCL.

8. Alternative Energy Resources

Luna County has wide swaths of open land through which transmission lines could be placed to enable the development of its abundant renewable energy resources including solar, wind, and geothermal generation by creating access to the interstate power grid in the Southwest. Two transmission projects have been proposed:

- **The SunZia Southwest Transmission Project** will include two extra-high-voltage (500 kV) electric transmission lines and substations, primarily for transmission of renewable energy from Arizona and New Mexico to customers and

markets across the southwestern US. The BLM is the lead federal agency for the right-of-way application process and began a public scoping process in June 2009 to kick off the start of an Environmental Impact Statement (EIS) to develop and evaluate alternative routes. The draft EIS released in May 2012 identified a BLM-preferred route approximately 530 miles long, beginning at the proposed SunZia East Substation in Lincoln County, NM, and ending at a proposed substation in Pinal County, AZ. The route traverses about 191 miles of public BLM land, 226 miles of state-administered lands, and 113 miles of private land in both states. The preferred corridor route through Luna County enters through the northeast corner and traverses the top third of the state, north of Deming. The final EIS is scheduled to be released in December 2012 or early 2013. (See Appendix)

- The **Southline Transmission Project** is 360 miles of new and rebuilt 345 kV double circuit that will connect and transmit electricity from Las Cruces, NM, to Tucson, AZ. The project is a bi-directional line designed to improve regional grid reliability, ease existing congestion on the grid, and facilitate the interconnection of renewable and conventional energy resources with the grid. The public scoping period led jointly by the BLM and Western Area Power Administration began on April 4, 2012, and was extended until July 6, 2012. The initial location study area proposed in Luna County extends across the lower two-thirds of the state from just north of Deming to the southern county line. (See Appendix)

Luna County already has two renewable energy projects up and running. They are:

- **Macho Springs Wind Energy Project.** The Macho Springs Project is an industrial-scale wind energy project with 28 wind turbines located 20 miles northeast of Deming. The project produces up to 50 megawatts of wind power, which will be sold to Tucson Electric Power.
- **Deming Solar Energy Center.** PNM developed an industrial-scale solar field on 50 acres south of Deming. It can produce up to 5 megawatts of power, which over the course of a year will generate enough electricity to power about 1,600 average-size homes. PNM states that the project will offset about 10 million pounds of carbon annually. [if someone can find out the watt hours over time we can include]



B. Public Land and Agencies

Approximately 69 percent of the acreage in Luna County is public land managed by the Federal or State government. Federal land managed by the Bureau of Land Management (BLM) or the Department of Defense comprises about 40 percent of the total land in the county, while State land, including parks, comprises about 29 percent. The remainder of the land – 590,083 acres or 31 percent – is held privately.

Luna County citizens have direct control only over the portion of private land within the county's borders, yet the county's economy is partially dependent on business activities on Federal and State land. Local ranchers have grazing permits on public land. The county receives payment-in-lieu of taxes from its public land.

The diversity of land ownership in Luna County has created conflict in the past when residents have perceived that Federal and State land managers were making land use decisions in the county without sufficient county notice, guidance and consultation. Federal legislative guidance on local versus federal/state control of public lands has evolved over the years. Key legislation includes:

- **Taylor Grazing Act of 1934,** authorized the Secretary of Agriculture to issue grazing permits on a preferential basis to those landowners engaged in the livestock business.

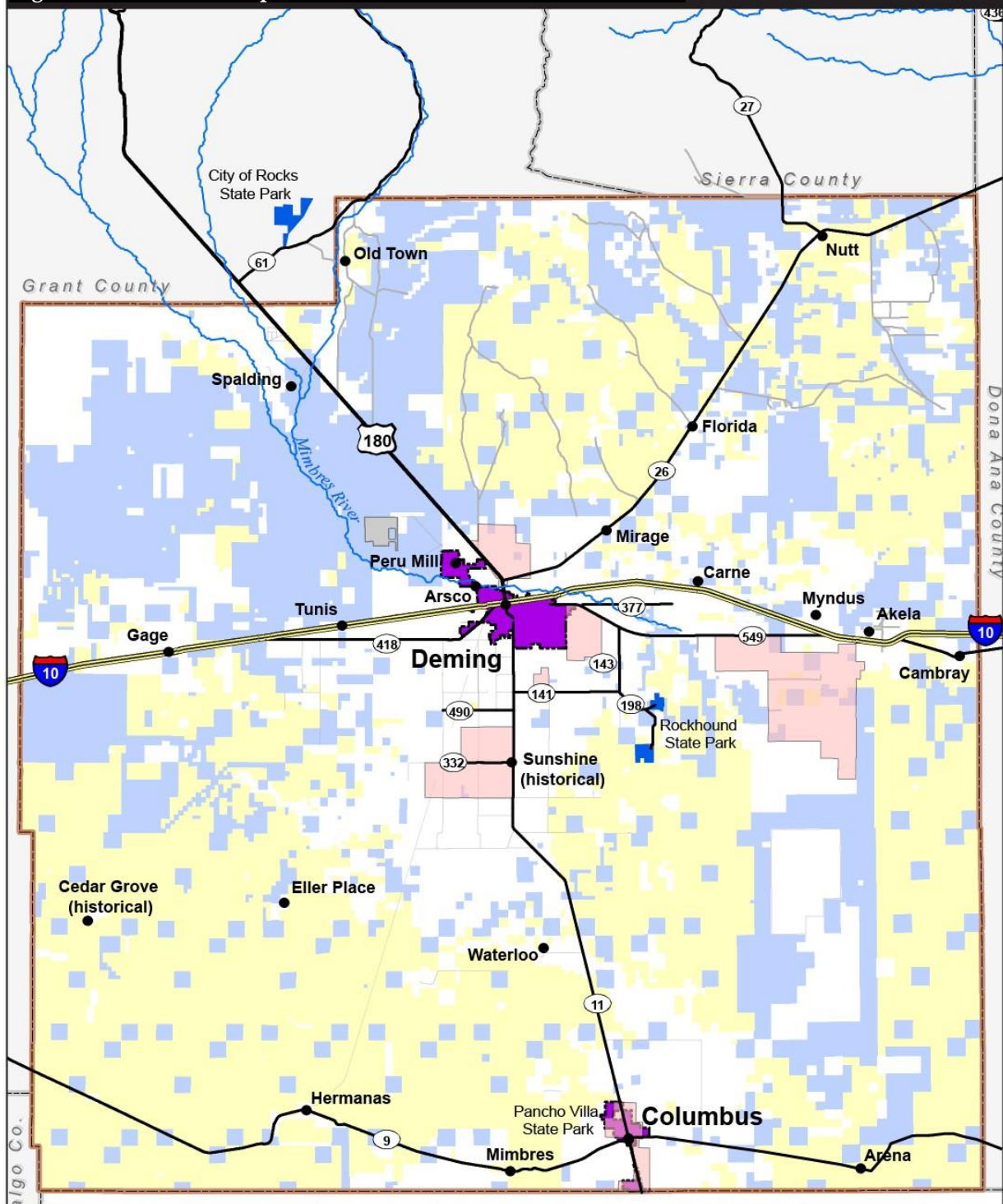
- **National Environmental Policy Act (NEPA) 1970** was the first major environmental law in the US. It established policy that the federal government, in cooperation with state and local governments, would use all “practicable means and measures” to “create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic and other requirements of present and future” Americans. To carry this out, it required Federal agencies to undertake an assessment of the environmental effects of their proposed actions prior to making decisions. These became the widely used Environmental Assessment and the more detailed Environmental Impact Statement. The dual purposes of the process were to ensure better informed decisions and more citizen involvement.
- **Endangered Species Act of 1973** authorized the determination and listing of species as endangered and threatened, prohibited their unauthorized taking, and allowed land acquisition for conservation of listed species by specific Federal funds. Amendments in 1988 required the US Fish and Wildlife Service to notify state and county governments and allow them to participate in and influence all proposed listings, all proposed additions or changes in critical habitat designations, and all property protective regulations.
- **Federal Land Policy and Management Act of 1976 (FLPMA)** created a single, unified statute to guide the operations of the Bureau of Land Management (BLM). It established a policy that most remaining public lands would be retained in Federal ownership, while allowing for some land exchanges and sale of discrete tracts. It directed the BLM to establish a planning process that resembled that used by other Federal agencies: inventorying public lands and their resources and developing resource management plans. Public lands were to be managed to protect the quality of “multiple uses,” providing food and habitat for fish and wildlife as well as domestic animals, providing outdoor recreation and conservation, and allowing for energy and mineral extraction and sustained yield of products. It empowered the BLM to take actions necessary to prevent “unnecessary or undue degradation” of public lands. Federal agencies are obliged to coordinate their planning and management processes with local and state governments and plans.
- **US Forest Management Act of 1976** established a system for public forest management based on the principles of multiple use and sustained yield. It requires the USDA

Forest Service to coordinate land use planning with those of county governments using the NEPA process. Resource management plans are to consider both economic and environmental factors. The Act mandates regional and forest planning to be based on:

- Preservation of important historic, cultural, and natural aspects to the national heritage
- Coordination with land and resource planning by other federal agencies and state and local governments, and Indian tribes.
- Sensitivity to economic efficiency
- Responsiveness to changing conditions of the land and changing social and economic demands of the American people

Figure 7. Land Ownership

October 23, 2012



Source: RGIS

All data has been obtained from public sources and no warranty is made to its absolute accuracy

LEGEND

County Boundary

Luna County Boundary

Roads

Incorporated City Limits

Private

NM State Parks

State of New Mexico

Colonias

Indian / Tribal Land

US Bureau of Land Management

US Department of Defense

Prepared by:



A new rule published in May 2005 allowed roads to be built in the last 58.5 million acres of untouched national forests, opening them to possible logging, mining and other commercial uses. Governors could petition to stop road-building on some acres and allow it in others. Another proposed rule required each forest and grassland to designate a system of roads, trails and areas slated for motor vehicle use.

- **Public Rangelands Improvement Act of 1978 (PRIA)** directs the Secretary of the Interior to manage public rangelands in accordance with the Taylor Grazing Act, the FLPMA and other laws. It was designed to improve the conditions of public rangelands so they become as productive as feasible in accordance with the FLPMA, which was also amended under the Act.
- It requires the Secretaries of both Interior and Agriculture to develop, update and maintain an inventory of range conditions and to track trends in the condition of public rangelands. No less than 80 percent of appropriated funds must be used for on-ground range rehabilitation, construction maintenance and personnel training. It also established a formula for setting fees for domestic livestock grazing on public rangelands.

As time passed, western states and counties that were dissatisfied with or felt left out of federal agency decisions regarding public lands within their borders began to adopt local laws aimed at regaining more influence. In Luna County that took the form of the Luna County Interim Land Use policy, adopted as Ordinance 17 in 1991, and the subsequent Ordinance 26 establishing the Luna County Natural Resource Planning and Review Process.

1. Luna County Interim Land Use Policy, 1991 (Ordinance 17).

This law sets forth guidelines to protect private property rights, ensure the optimum use of public lands and preserve the custom and culture of Luna County. It also proposed brief land use policies to remain in effect until a permanent Luna County Comprehensive Land Use Plan was developed and approved by the County Commission, which occurred in September 1999.

The ordinance supports the concept of multiple uses on public land and lays out the following policies to be implemented:

- Increase opportunities for local economic development by expanding the amount of patented and nonfederal lands in the county.
- Prohibit Federal and State agencies from acquiring any private lands or rights in private lands without ensuring a) parity in land ownership is maintained, and b) private property interests are protected and enhanced.
- Target for disposal any Federally-managed lands in isolated tracts or that are difficult to manage, and enlist the NM State Land Office in coordinating land exchanges.
- Allow the county to determine land withdrawals for hazardous and non-hazardous waste storage.
- Require agencies to conduct adverse impact studies on changes in land use, land trades, or acquisitions by Federal and State land agencies before any change can occur. Studies would examine the impact on community stability, local custom and culture, grazing rights, flood-prone areas, access, and economic impact to leaseholders.
- Require Federal agencies to notify and consult with the general public, local communities and the State of New Mexico about all federal and state land adjustments in Luna County and require the county's concurrence prior to any land adjustments.

2. Luna County Natural Resource Planning and Review Process, 1994 (Ordinance 26)

This ordinance took the Interim Land Use Policy (Ordinance 17) a step further by prescribing a “problem-solving process to eliminate or significantly reduce conflicts or negative impacts on the human environment within Luna County as a result of state or federal actions.” Its objectives are to disclose to federal and state agency decision makers, county officials and the public the potential impact of any proposed federal or state agency action on social cultures and customs, property rights, community economic stability and the tax base of the county. It aims at promoting intergovernmental coordination and identifying ways to avoid or reduce adverse impacts and mitigate or remove such impacts through development of alternatives. It mandates joint planning and public involvement with federal and state agencies and the Luna County Commission and lists three classes of environmental assessments reports to be used to accomplish this: informal letters, Initial Assessment Reports (IARs), and Environmental Impact Reports (EIRs). Informal letters are to be used to document discussions of possible impacts, IARs are to be prepared at the request of the LCC when there is an indication

that there may be a negative effect on the physical, social/cultural, or economic environment or property rights. Based on the IAR findings, the LCC would determine whether to prepare a more formal and detailed EIR. The Luna County Natural Resources Board was authorized by the LCC to help implement this ordinance.

Other Federal and State Agencies

Two other agencies are active in Luna County in conserving the land and resources. Both are located in the Deming Service Center at 405 E. Florida Street.

National Resource Conservation Service (NRCS)

This group, under the USDA partners with State and local governments (except municipalities), tribes, agricultural organizations, farmers and ranchers, non-profits and others to focus conservation assistance on local projects. They offer technical and financial assistance grants through a number of programs to:

- Help plan and design acequia projects.
- Stimulate development and adoption of innovative conservation approaches.
- Conserve wildlife habitat.
- Relieve imminent hazards to life and property created by natural disasters such as floods, fires, or droughts.
- Help farmers and ranchers protect agricultural land from conversion to non-agricultural uses through established easement programs.
- Help farmers to conserve and restore grassland, rangeland, pastures and other lands.
- Assist landowners interested in restoring or protecting wetlands.
- Help government entities and tribes plan and carry out projects to prevent damage from erosion, floodwater, and sediment.

Deming Soil and Water Conservation District (DS&WCD)

Co-located with the NRCS, the Deming Soil and Water Conservation District has a small operating budget but serves as a fiscal agent for funds redistributed to ranchers from the Bureau of Land Management and the Interstate Stream Commission. Funds are used to improve ranchlands, develop and water stock tanks, cut down on dust, eradicate and control noxious weeds.

C. Natural Resources and Public Land Use Issues

Overall, members of the Steering Committee and the general public have expressed that Luna County's natural resources need to be protected. Residents particularly value the scenic views and panoramas, the climate (no weather-related disasters such as floods or hurricanes), native plants and the desert landscape, the dark night skies which are perfect for stargazing, the unspoiled wide open spaces, and wildlife and its habitat. Land ownership and various types of development impact these resources.

- **Riparian areas.** The riparian areas in Luna County are located to the north surrounding the Mimbres River on primarily private land. They are rare and valuable in New Mexico as they provide water for wildlife and its habitat, for residents and for aquifer recharge. Protecting these areas is important to the health of the ecosystem. Luna could take steps to ensure the continuing health of these areas.
- **Public land.** Some 69 percent of Luna County is public land managed by federal and state agencies. This leaves 31 percent, or about 590,000 acres, in private ownership and under the control of Luna County. The small percentage of private land is a limiting factor for economic development in the county, although the county does receive payments-in-lieu of taxes for the land within its borders. Federal and state ownership of the larger percentage of land also limits the control the county has on these lands. Through the years the County also has adopted legislation that requires it be notified about proposals for public land and be treated as a collaborative partner in actions affecting it.
- **New industrial development.** While a boon economically to the county, recent renewable energy installations and accompanying transmission lines and structures have interrupted scenic views and panoramas. Concentrated solar farms, which focus the sun's radiation to heat a liquid which then drives a heat engine and then an electric generator, can use precious water resources. Windmills have injured wildlife, mostly bats and birds. These improvements to public and private land also generate higher property taxes and payments to the County at a time when agriculture is less robust. The County collects money through industrial revenue bonds it negotiates to finance these structures. A pressing issue is where to site new transmission lines needed to move new wind and solar energy west and east of New Mexico. The County

could consolidate all the transmission lines in a single corridor, preserving the views elsewhere.

- **Density of septic systems.** Residential communities, particularly colonias, have septic systems that are too close together, which can contaminate groundwater. Other communities that are not yet built out, such as the Deming Ranchettes, are subdivided into parcels too small by the NM Environment Department standards to accommodate traditional septic systems, hampering their development.
- **Unsustainable groundwater pumping.** The Mimbres Basin groundwater is being pumped faster than it can be replenished by precipitation. The majority of the water in Luna County is used for agriculture. The county's water supply is predicted to run out in 40 to 60 years, an occurrence that could accelerate due to global warming. The County should take further actions to mitigate and or adapt to these conditions. Standing water evaporates quickly so storm water collection systems should be designed to allow water to replenish the aquifer rather than to evaporate. While the federal NRCS and state Soil and Water District in the county have conserved water through cost-sharing programs to boost the efficiency of irrigation systems (valued at \$1.5. million in 2011), the county does not yet have a water conservation program. The Regional Water Plan identified a number of alternatives Luna County could pursue to extend the life of its water supply. Projects proposed as part of the Arizona Water Settlement Act of 2004 should also continue to be pursued.
- **Climate change.** Warming trends and more severe weather are expected to continue regardless of actions taken now to reduce greenhouse gas emissions as the climate responds gradually to greenhouse gas emissions. The global oceans take extra carbon dioxide and heat energy out of the atmosphere very slowly, redistributing gases and warmth throughout the deep ocean for many years. It takes time for surface changes to occur, such as the melting of ice sheets. The carbon dioxide emissions generated today will have effects for decades to come.
- **Dust storms and poor air quality.** This condition derives from blowing dust, which is common in Luna County due to the grading of roads by the County, the dragging of dirt roads by the Border Patrol to make tracks more visible, and the scraping of private lots to comply with the weed ordinance. Some dust also occurs as a result of overgrazing of rangeland. According to the NMED, Luna County typically experiences one to ten days a year when dust

storms exceed the National Ambient Air Quality standard of airborne particulate matter 10 microns or less in size (about 1/7th the diameter of a human hair) (NMED 2012). This standard was developed to protect the public's health and well being. Inhaling dust can irritate the lungs and trigger allergic reactions as well as asthma attacks. It can cause serious breathing problems in those who already suffer from these conditions. Dust can also cause coughing, breathing and runny noses. Breathing large amounts of dust for prolonged periods can result in chronic breathing and lung problems. NMED advises residents to stay indoors, or wear protective covering over the nose and mouth during dust storms.

- **All-terrain vehicle use.** This occurs in various places in the desert, typically on public land. ATV use destroys rangeland. Users have been known to cut fences and ride around illegally on public land and even private land with few consequences.

D. Natural Resources and Public Land Use Goals and Strategies

NR/PLU Goal 1: Protect Luna County's visual resources: mountains, vistas and landscapes.

- Strategy a. Work with the BLM and the State Land Office to ensure that large utility lines from alternative energy sources do not obstruct views.
- Strategy b. Work with BLM, the State Land Office, private landowners and utility companies to establish utility corridors for consolidating new pipelines and above-ground utilities such as transmission lines.

NR/PLU Goal 2: Protect the night skies from light pollution.

- Strategy a. Amend the County zoning ordinance and Building Code to establish lighting standards to protect dark skies.
- Strategy b. Work with utility companies and property owners to identify lights that are not in compliance with the building code and the Night Sky Protection Act.
- Strategy c. Create an ordinance that specifies an amortization schedule for removing and replacing these lights.
- Strategy d. Enlist cooperation of the US Border Patrol and other federal agencies in restricting use of area lights to the immediate area.

NR/PLU Goal 3: Protect key natural areas and native wildlife.

- Strategy a. Identify and specify which natural areas or what types of “key” natural areas should be protected. These should include at a minimum riparian areas, floodplains, wildlife habitat, and groundwater recharge areas.
- Strategy b. Work with public agencies, particularly NRCS and Deming SWCD, to learn about and implement best practices for protecting natural areas.
- Strategy c. Establish development standards that regulate buildings and the subdivision of land within designated floodplains and riparian areas.
- Strategy d. Work with private landowners directly or through the NRCS and SWCD to protect the riparian areas in Luna County.
- Strategy e. Identify public lands that should be conserved and work with the owner agency through the Natural Resources Board to convey the County’s preferences if lands are not already protected.
- Strategy f. Work with public agencies to identify areas suitable for ATV use, and restrict ATVs to designated areas. The intent is to protect fragile vegetation while accommodating a popular recreational activity.
- Strategy g. License ATVs to help pay for county trails.

- Strategy h. Review and strengthen the existing Floodplain Protection Ordinance.
- Strategy i. Improve all relevant Luna County regulations to better protect the environment.
- Strategy j. Retain stock tanks for both livestock and wildlife use.

NR/PLUGoal 4: Protect native vegetation and reestablish native vegetation in areas that have been damaged or taken over by non-native species.

- Strategy a. Work with the NRCS on a prototype project to reestablish grassland in southern Luna County.
- Strategy b. Prevent fragmentation of quality grasslands. Identify and map these areas and use the information when making decisions about roadways, subdivisions, and other development proposals.
- Strategy c. Adopt best management practices in the County development code that minimize clearing of native vegetation. Examples of best practices include encouraging residential subdivisions to specify building envelopes while protecting the remaining vegetation.
- Strategy d. Educate homeowners about the importance of retaining native vegetation and how best to accomplish it.

NR/PLU Goal 5: Protect Luna County's air quality by minimizing the amount of dust in the air and protecting soils from erosion.

- Strategy a. Grade dirt roads at appropriate times; for example, when ground is moist.
- Strategy b. Perform road grading only when necessary.
- Strategy c. Consider spraying approved chemicals on lots and vacant land to discourage weed growth rather than mowing or scraping the earth.
- Strategy d. Work with the US Border Patrol to end or minimize the amount of road dragging.
- Strategy e. Educate homeowners on the best methods for controlling weeds on their properties.
- Strategy f. Encourage use of deep plowing to remediate land areas that have been scraped of vegetation and have blowing dust.

NR/PLU Goal 6: Protect the quantity of the water supply in Luna County.

- Strategy a. Decrease the average amount of water used per day by Luna County and its residents through water conservation, rainwater harvesting, and use of graywater systems. Capture excess water to use (the amount over historic flows).
- Strategy b. Encourage efficient use of water at the residential and commercial level by preparing water conservation guidelines or regulations for residential and commercial users.
- Strategy c. Revise the subdivision ordinance to encourage aquifer recharge through the design of storm drainage systems.
- Strategy d. Encourage the use of drip irrigation for agriculture and residential landscapes to reduce consumptive use of water.
- Strategy e. Work with community water systems on water conservation efforts.
- Strategy f. Incorporate water conservation standards for indoor and outdoor water use into the County building code.
- Strategy g. Encourage the attraction and growth of businesses that are not water-intensive and/or recycle their water.
- Strategy h. Coordinate with the Office of the State Engineer.

NR/PLU Goal 7: Protect the quality of the water supply in Luna County.

- Strategy a. Develop a wellhead protection plan.
- Strategy b. Encourage residents in proximity, through incentives or requirements, to hook up to the Deming water and sewer system.
- Strategy c. Develop a solution for the Deming Ranchettes, which are subdivided into lots too small to accommodate traditional septic systems under state regulations.
- Strategy d. Monitor water quality in high density areas and plug contamination pathways.
 - Conduct water sampling in high density areas with a risk of contamination.

Chapter 4:

Private Land Use

Land use is a fundamental component of comprehensive planning and provides an underlying framework for the entire document. Land use planning influences housing, community, commercial, and industrial development as well as the location of public facilities. Land use patterns influence such things as a community's economic base, the cost of providing public services and the location of future development.

Analyzing existing patterns helps to determine how and in what direction a community is growing and whether the pattern should be continued or changed.

A. Existing Land Use

Since 2000, Luna County's growth has been modest.

1. Residential Land Use

The 2010 Census counted 25,095 persons living on the 590,083 acres of private land in Luna County, for an average density of 0.04 persons per acre. This was only a 0.3 percent increase in total population since 2000. Approximately 65.8 percent of the population is considered to be urban (living in either Deming or Columbus) while 34.2 percent would be considered rural. Columbus and the unincorporated portion of the county lost population over the past decade while Deming gained population, although this may be largely due to annexations.



Table 6. Luna County Population Location

	2000	2000 %	2010	2010 %	Change in Number	Percent Change
Deming	14,116	56.4%	14,855	59.2%	739	5.2 %
Columbus	1,765	7.1%	1,664	6.6%	-101	-5.7%
Unincorporated	9,135	36.5%	8,576	34.2%	-559	-0.6%
Total	25,016	100%	25,095	100%	79	0.3%

Source: US Census

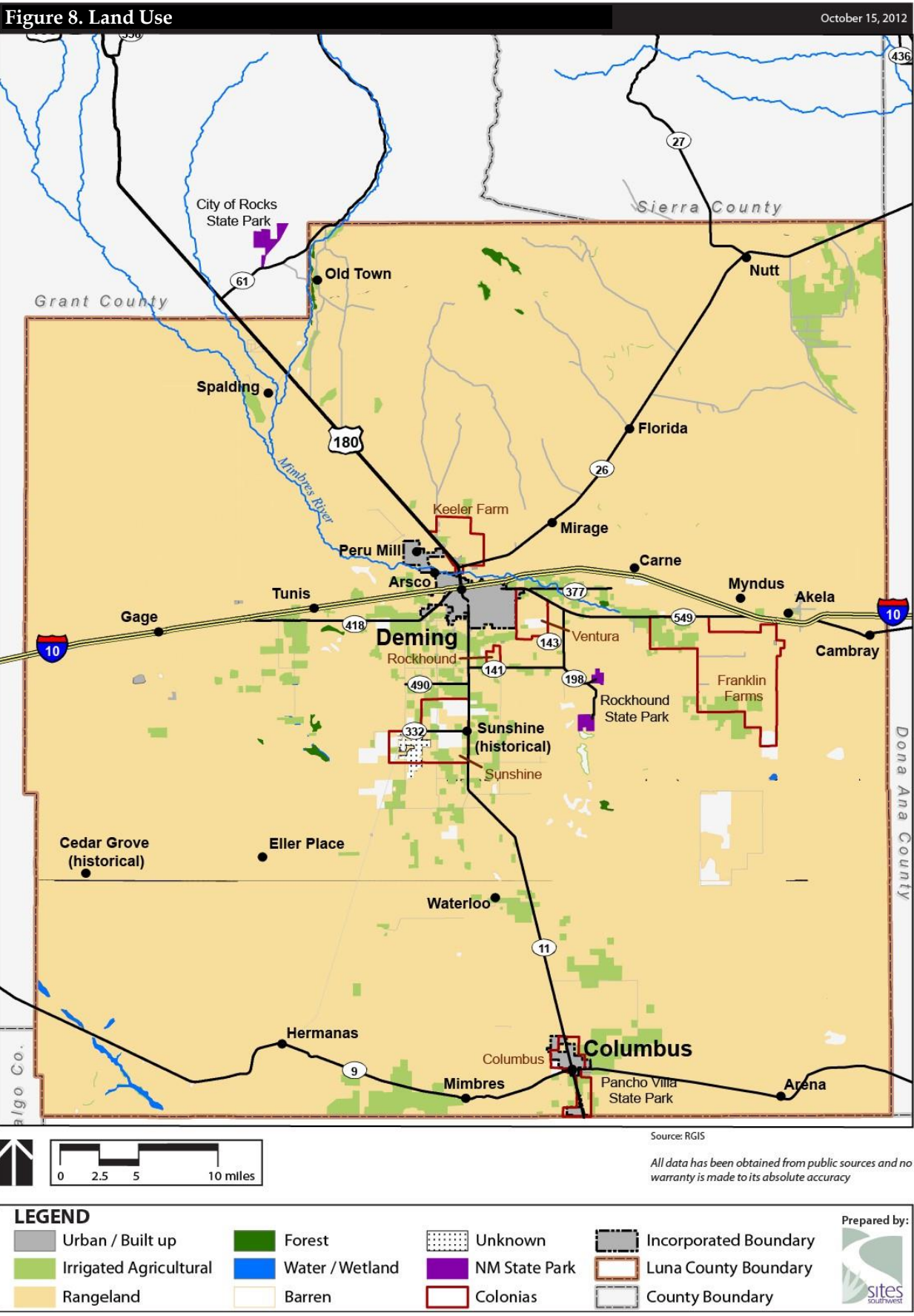
Most of the population lives in and around the more urban centers of Deming and Columbus. Residences cluster around the Deming area, as well as south into the Sunshine subdivision, and further south along and west of the Columbus Highway. They start to thin out as they approach Waterloo, and then grow denser as they approach Columbus. A smaller cluster of residential uses lies to the north of Deming, between Hwy 180 and 26, in the outskirts of the city. Smaller clusters of residential are found between and south of Carne and Akela, particularly in two half-acre-lot subdivisions. Remaining residences, mostly likely part of farms, are scattered throughout the remainder of the private land in the county.

2. Agricultural Land Use

The large majority of land in Luna County is used for grazing, followed by irrigated agriculture. The top crop items by acres farmed are vegetables harvested for sale, forage, cotton, peppers (primarily chile) and corn for silage.

Farming and ranching are somewhat on the decline in the county, due to economics, the aging of farmers and ranchers, and diminishing water due to drought and mining of the aquifer. The amount of land in farms dropped 8 percent from 709,518 acres in 2002 to 653,558 acres in 2007, the last year for which data were available. While the number of farms increased over that period, the average size decreased by 24 percent. The majority of farmland was in pasture (92.5%), while 6.6 percent was in irrigated agriculture and the remainder in other uses in 2007. Crop sales generated \$30.8 million in sales in 2007, while livestock sales (mostly cattle) accounted for \$18.1 million – an average of \$237,334 per farm. In addition, farms received some \$1.48 million in federal payments from various programs such as boosting the efficiency of irrigation systems, solar panels for livestock, and control of invasive species (USDA 2007).





Of the 206 principal operators of farms in the county, some 60 percent farmed as their primary occupation while 40 percent had other primary occupations. The average age of the principal operator in 2007 was 58.2 years (USDA 2007).

While still fifth on the list of Luna County industry sectors in terms of the number of agricultural jobs, the number has dropped steadily over the past ten years. The number of agricultural jobs in the county in 2011 (727 jobs) was less than half what it was in 2001 (1,586 jobs). The sector generates 0.3 percent of total gross receipts in the county. Agriculture is still very important here, however, according to the federal Natural Resources Conservation Service (NRCS) and the NM Soil and Water Conservation District (NMSWCD). Moreover, rising food prices across the country due to the current drought may result in a resurgence of agricultural cultivation.

In addition, the vast areas of vacant land in Luna County have created opportunities for the construction of solar and wind farms on what has traditionally been grazing or farmland. These installations can provide farmers and ranchers as well as the county with additional income, while still accommodating farming and ranching. More caution should be exercised under high voltage transmission lines. These reportedly have been problematic for cattle, people with heart pacemakers, and ungrounded barbed wire fences.

3. Commercial and Industrial Land

Most of the commercial and industrial land uses are found within the boundaries of Deming and Columbus. They include:

- **Deming Industrial Park**, at 800 acres, is an ideal site for manufacturing and warehousing. Current tenants range from food processing to manufacturing to warehousing and distribution. The park is suitable for businesses that require small to medium tracts of vacant land.
- **Peru Mill Industrial Park** is a 512-acre industrial park located northwest of Deming. The site's zoning allows for the construction of a wide range of manufacturing and industrial applications, including businesses that need large tracts of land. This industrial park has room for expansion.
- **Columbus Industrial Park** is located on the border with Mexico and has land available for lease or build-to-suit. It provides warehouse space and stockyards for cattle. Some 160 acres acquired from Luna County can be made

available for additional industrial or warehousing activities.

- **Macho Springs Wind Energy Project** is an industrial scale wind energy project with 28 wind turbines located 20 miles northeast of Deming. The project produces 50 megawatts of wind power, which will be sold to Tucson Electric Power
- **Sapphire Energy** is an algae bio-fuels refinery project headquartered in San Diego, California. It operates a “green crude farm” near Columbus.
- **Deming Solar Energy Center.** PNM developed an industrial scale solar field on 50 acres south of Deming. It can produce up to 5 megawatts of power, which over the course of a year will generate enough electricity to power about 1,600 average-size homes. PNM states that the project will offset about 10 million pounds of carbon annually.



B. Existing Land Use Regulations

Private land in Luna County falls under several different types of land use regulations depending on its location and its proximity to incorporated municipalities.

1. Extraterritorial Jurisdiction

NM law enables municipalities the size of Deming to exercise extraterritorial zoning jurisdiction (ETZ) concurrent with the county within one mile of its city boundary. There is no zoning in the county except for the Extraterritorial Zone, which runs from the Deming city limits to one mile beyond. Deming and Luna County exercise their concurrent zoning authority through the Extraterritorial Zoning Regulations (Deming-Luna County 2006). These have eased the transition from the county, which has no zoning, to the city zones. They are administered by an Extraterritorial Zoning Commission and an Extraterritorial Land Use Authority composed of officials from the county and city. Both the City and County are seeking to revitalize these regulations. The ETZ also is due to be redrawn in light of additional land annexations by the City.

The City provides all ETZ zoning and code administration and enforcement services in the ETZ district, while the County issues building permits and provides inspection services as specified in their 20012-2013 Multi-Services Agreement.

New Mexico statutes also allow cities the size of Deming to exercise planning and planning authority (subdivisions) concurrent with the county within three miles of the city's boundary. Deming and Luna County have not yet approved an ordinance governing subdivisions in the planning and platting jurisdiction (PPJ). In the meantime, Deming has the first right of refusal to review subdivision applications in this area. If the City declines review, the proposed subdivision is reviewed under Luna County's ordinance.

2. City of Deming and Luna County Multi-Services Agreement 2012-2013

This agreement establishes what services will be provided by the County and City and how much each entity will contribute in dollars. It supersedes Joint Powers Agreements signed in December 2002 and August 2006. In it, the City and County agree to cooperate to negotiate a new Joint Powers Agreement to replace the two earlier JPAs and more clearly define the roles and duties of each in the ETZ District.

3. Subdivision Regulations

Luna County follows its 2004 subdivision regulations. These follow State law requirements, including various exemptions allowed from the regulations. It also authorizes the Luna County Commission to authorize a variance for a Planned Development Area, defined as a plan and program of a new town, a complete community or a neighborhood unit, provided it follows policies in the Comprehensive Plan and fits with and is compatible with contiguous development in the county. The maximum water requirement for both indoor and outdoor purposes is 0.50 acre-feet per year per lot, unless a water demand analysis approved by the State Engineer justifies use of a different figure. The subdivision must prove this water is available for 40 years.

- Before approving a the final plat for a subdivision containing 20 or more parcels, any one of which is two acres or less in size, or a subdivision located within a declared underground water basin, Commissioners may require a permit from the State Engineer determining whether the amount permitted is sufficient.
- A community water system is required for all subdivisions that create more than 25 lots, any one of which is 3.5 acres or less in size.

- A community water system is also required for subdivisions containing six or more parcels in which groundwater would be supplied from geologic formations where wells have been determined to produce at a rate of two gallons per minute or less or where available information suggests the likelihood of low yielding wells.

The Subdivision Ordinance also has a section on Water Conservation Measures. It encourages low-water-use landscaping techniques, the installation of water-saving fixtures—low flush toilets, low flow showerheads and faucets, water-saving dishwashers and clothes washers, hot water pumps-- in all new buildings, metering of community wells and service connections, and pressure-reducing service connections where useful.

C. Issues and Opportunities

1. Deming Ranchettes.

The “Deming Ranchettes” commonly refer to the 80,000 to 200,000 half-acre lots that were platted and sold in the 1960s and 1970s and are located in subdivisions throughout the county. These lots were platted at a time when there were few statewide subdivision standards and little was known about the possible negative impacts on the quality of the underground aquifers caused by septic tank and sewage leach field systems developed on small lots. Moreover, these lots were created with nominal regard for environmental considerations, water availability, and water quality, potential for flooding and erosion, and solid waste disposal. These subdivisions have little or no infrastructure other than a road graded through the desert that rarely meets current County standards for road construction.

Some of the problems associated with these so-called “antiquated subdivisions” are that they were subdivided and sold before any utilities or roads were developed to support them, and that they are exempt from current subdivision regulations, such as those permitting the installation of septic systems and water wells. Area water quantity and quality could be severely impacted if these lots were to be developed at current densities without a community water and wastewater system. In fact, a 2005 map published by the NM Environment Department showing “groundwater contamination by septic systems in each county” confirms

such water contamination in the area around Deming, where many of the ranchettes are located.

Development of these lots has so far been limited by NM State regulations, adopted in 2005, that require at least three-quarters of an acre for a septic system and/or well. This requirement makes it difficult to build a home on less than two adjacent half-acre lots. At the same time, at one house per two lots, the density is not high enough to spread the costs of community systems to render them affordable to residents. In addition, many lots were platted with easements on all four sides, making it difficult to map out a uniform system of roads or utility corridors.

Many of the old lots and other antiquated parcels go to tax sale every year. Most are purchased by real estate agents and promoters who then market the lots, often over the internet, to buyers who have never seen the property and know little about it. Some properties are not easily accessed, some have no electrical service within miles, and some may be in areas where the cost of digging a well is prohibitive due to the depth to water. Buyers are not informed of these potential problems.

Luna County lacks the resources to provide community water and sewage systems, upgrade roads, provide for adequate drainage, or develop flood control devices to serve all these lots if they were to be developed to platted densities. At the same time, the County recognizes that people who have purchased these antiquated lots have some right to expect to develop their lands and get reasonable use from their investment. It is a serious issue that must be addressed.

Ranchettes will be coming to the fore in the future as more and more of their property owners seek to build their retirement homes and move to Deming. The frustration of existing property owners is in evidence on websites where owners have sought advice and solutions to their plights. Taking action before many more of the ranchettes are developed could make the difference in whether the ranchettes develop into an attractive retirement communities or a marginalized, potentially polluted area with no spaces for community facilities, parks, commercial areas, or other gathering spaces.

The County initially adopted an amendment to its previous Comprehensive Plan in 2006 and Ordinance 37 that required a 2-acre minimum lot size for new development occurring in identified "areas of concern." Such areas were specified in a

"...I own land in Deming Ranchettes... Was thinking about moving there from South Carolina. ...I have owned the land for about 45 years and if I can't build on it for some reason, I need to know...."

"There are people living there, very few. There typically there are still no utilities and water is trucked in unless you have 10k to 15k to drill a well and then you have to have a large enough property for that. You would need to have two of those lots just to build and 4 to drill a well.

A half acre lot is good for little more than a camp site and difficult at best to sell but taxes are next to nothing. Hope this helps you in some way."

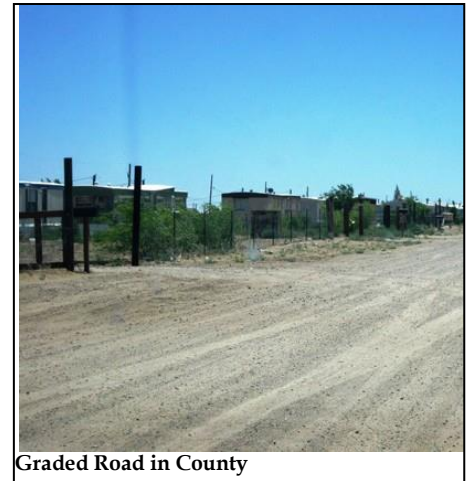
"My wife and I own two half acres in the Ranchettes... We are like a lot of people who will be tired of the Northeast weather when we're really old. ... We, who are happy to live on half acres, have two options for an "advanced septic system"...

"I'm trying to build in unit #4 also. ... You have electricity crossing your lot already, if you get a well installed and a permit for an advanced treatment unit before the deadline of Jan. 21, 2009, you should be good to go.

1989 aquifer sensitivity map as having groundwater less than 100 feet deep and total dissolved solids (TDS) of 2000mg/L or less. These Areas of Concern cover about a third of the Luna County, much of it in close proximity to Deming and Columbus. The amendment was later repealed.

Colonias

Several of the Ranchette subdivisions are officially designated “colonias.” This designation generally applies to any identifiable community in Arizona, California, New Mexico and Texas within the US-Mexico border region that lacks a potable water supply, has inadequate sewage systems, has inadequate roads and drainage, and has a shortage of decent, safe, and sanitary housing. . While qualifying definitions vary somewhat by program, a colonia must have been in existence before October 1, 1989 (USDA) or November 28, 1990 (HUD). The border region for these purposes is defined by the US Department of Housing and Urban Development (HUD) and the US Department of Agriculture (USDA) as the area within 150 miles of the border, excluding metropolitan statistical areas with populations exceeding one million.



Graded Road in County

There are eight designated colonias in Luna County: Bell School, Catfish Cove, Village of Columbus, Sunshine, Franklin Farms, Rockhound, Ventura and Keeler Farm. Each is unique in some way and needs a different solution, probably best laid out in an individual master plan. For example, it is more feasible for colonias located close to Deming to hook into the city’s water and sewer system. Others that are farther removed will probably have to develop their own infrastructure.

The National Affordable Housing Act of 1990, section 916, required Texas, New Mexico, Arizona and California to set aside 10 percent of their CDBG funds in FY 1991 for colonias. Although the percentage fluctuated over time, the 1997 appropriations act made it permanent. Since then, New Mexico has set aside the 10 percent of funds for colonias. Most of the funds have been spent on water, sewer, and street projects in the colonias.

Other programs available to colonias are the HUD HOME program, the Border Community Capital Initiative, and financing from the US departments of Environmental Protection, Agriculture, Commerce, and Health and Human Services.

Wastewater Management Plan for a Portion of Luna County, March 2012

In a major step toward resolving the colonias' water and wastewater issues, the County contracted for a Wastewater Management Master Plan to examine the depth of the problems and propose solutions (Zia Engineering 2012).

The report classified the colonias into sub-areas based on their lot sizes (see Figure 9) and made recommendations based on this as well as water samples and depth to groundwater.

- **Sub-Area A (green):** Subdivisions with lot sizes three quarters of an acre or larger. Under NMED's current regulations, these lots qualify for a conventional septic system and domestic well located on the same lot, provided set-back requirements are met. The groundwater table below these areas is greater than 100 feet and there are no geological risk factors, such as fractured rock. During the planning period (2011-2031), Luna County may not have to take any action regarding wastewater management in these areas.
- **Sub-Area B (blue):** Subdivision lots in this area generally are smaller than three quarters of an acre so do not qualify for conventional on-site wastewater systems. Portions of this area are close to Deming and could be easily and economically connected to the City's sewer system. Other areas will require significant capital expenditures to hook up.
- **Sub-Area C (purple):** These subdivision lots are generally a half-acre in size, well below the NMED requirement of three quarters of an acre, and in remote locations. Depth to groundwater is greater than 100 feet with no imminent threat of groundwater contamination. Because these lots have been slow to develop and are estimated to have a dwelling density of less than 10 percent, engineers found it hard to justify construction of a community wastewater system on a cost/benefit basis. The plan recommends that lot owners either 1) purchase one or more contiguous lots to create one lot large enough for a conventional septic system, 2) construct an NMED-approved advanced wastewater treatment system, which is expensive, or 3) organize multiple contiguous lot owners (perhaps 10 to 20) to create small cooperative agreements and construct a cluster system.
- **Sub-Area D (yellow-orange):** This sub-area is a remotely located cluster of subdivisions with lots smaller than three quarters of an acre. In contrast to Sub-Area C, however, it is densely populated with some 400 existing dwellings, all

with on-site conventional wastewater systems that fail to meet current NMED regulations as well as co-located wells. While the groundwater table underneath is deeper than 100 feet, the high concentration of dwellings with on-site systems poses a greater environmental and public health risk than other sub-areas. The plan recommends that a community wastewater collection, treatment and disposal system be constructed for this sub-area.

The County's next steps will be to conduct more water sampling to determine the extent of contamination and the highest priorities for remediation. Decisions about infrastructure installation will depend partly on whether residents in the service area can afford to maintain it once constructed.

Other Options

Beyond the wastewater and water system issues, many of the ranchette lots have right-of-way easements on all four sides, making it difficult to locate utility lines or roads. Owners would somehow have to vacate a portion of these easements and identify the major rights-of-way that could be used for these purposes.

There are several other options that the County might pursue (Whalen, John P. 2006):

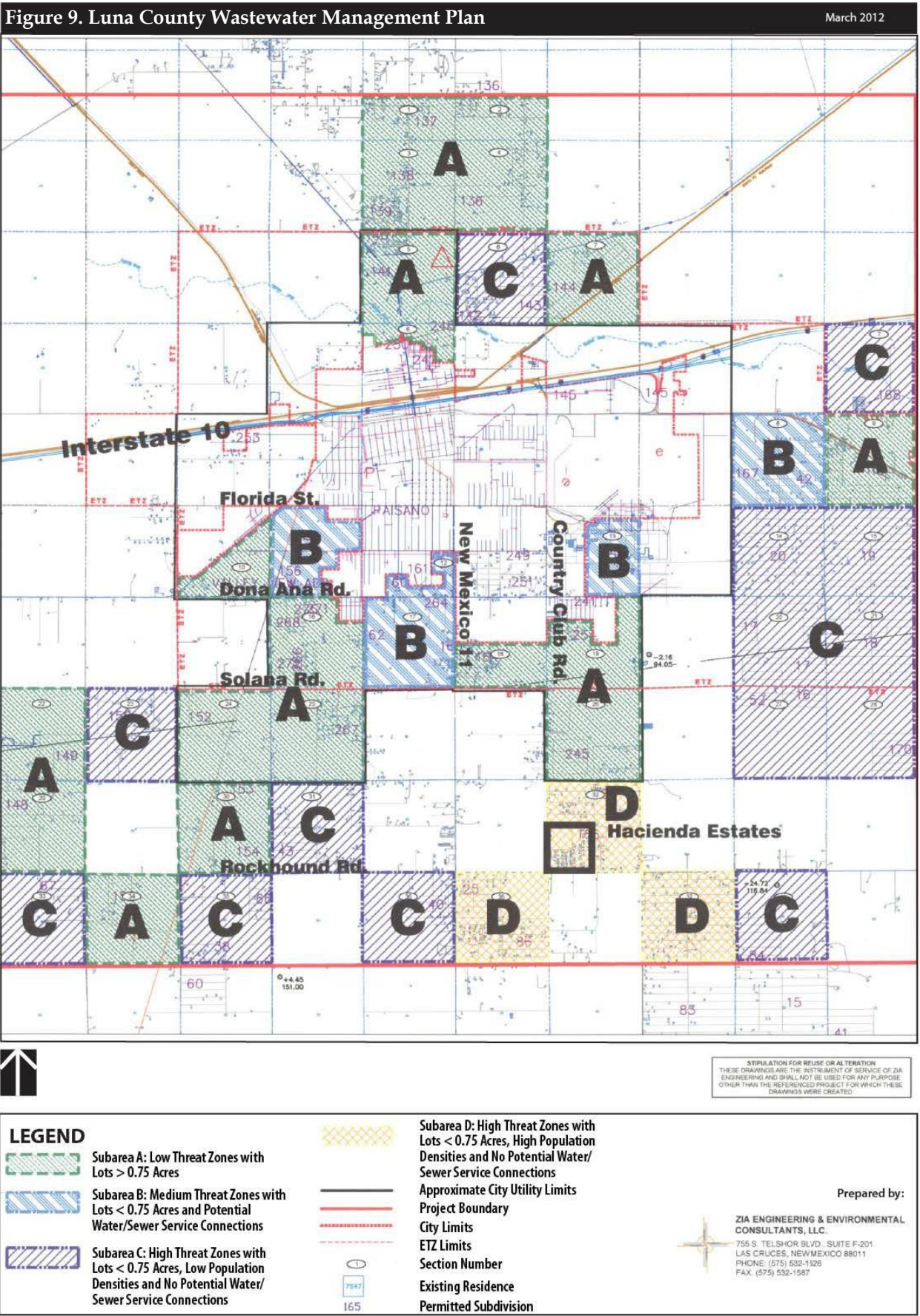
- a. Facilitating communication between owners seeking to sell or purchase lots to create a legally developable parcel by posting a page on a website listing requirements for development, maps of the lots, and other information such as options for wastewater disposal and solar energy.
- b. Land readjustment or pooling: All the land in a particular Ranchette area would be pooled together, and infrastructure needs and costs would be determined. Then the percentage of land needed to build public facilities and infrastructure would be calculated. Each owner would accept this percentage as a "land reduction," and typically see an increase in value of their remaining land. Costs could be recovered in the sale of land.
- c. Local government condemnation or purchase: This option is similar to (b) but excludes the community in the decision and makes it the government's sole responsibility to determine what happens to the land. It could, for example, be replatted and sold or designated as natural open space in perpetuity.
- d. Declare the area "blighted" under the Metropolitan Redevelopment statute, giving landowners access to low-

cost loans and other incentives to redevelop and construct infrastructure.

- e. **Special Assessment District:** A district could be created in the ranchettes in which an assessment would be levied against properties to pay off bonds that would be issued to pay for the costs of building infrastructure, such as water/wastewater disposal, roads, etc. (RBC Capital Markets 2007).

2. Outdated Land Use Ordinances. Luna County's land use ordinances are insufficient and outdated. There are no zoning regulations, so building and development can occur with little control or direction. Particular issues related to this include:

- Large alternative energy facilities and transmission lines are industrial type developments that have an impact on views and the natural environment. There is concern that they may not be appropriate in some areas and should be regulated to minimize their impact.
- The subdivision ordinance encourages sprawl rather than compact development with the efficient use of infrastructure and resources such as water.
- Junk piled in yards contributes to substandard neighborhood appearance and is a nuisance to adjacent properties.



Potential solutions

- **Performance zoning** – sometimes referred to as a growth guidance system- bases approval of land uses on a point system. It moves away from traditional zoning that separates different types of uses (residential, commercial, industrial, agricultural) geographically and instead evaluates prospective developments based on the project's impacts – positive and negative – on the local area. To win approval, a project would have to meet certain performance standards, measured by an accumulation of points. Some systems, for example, assign points to reward projects that locate near public infrastructure or schools or that feature designs compatible with an area's architecture.

Performance standards can sometimes be more politically acceptable in areas where traditional zoning is opposed. They can allow a wider range of uses and greater flexibility than traditional zoning, yet still provide consistency and reassurance to developers that their projects will be approved if they meet adopted standards. On the other hand, performance zoning can require more time and expertise to develop and administer than traditional zoning. Not all impacts are easy to quantify. There are a few models for rural communities in New Mexico; for example, Rio Arriba County and Santa Fe County.

- **Special Zoning Districts.** New Mexico law allows zoning to be adopted for a discrete area encompassing no more than 20,000 contiguous acres that are outside the limits of an incorporated municipality yet within a county that does not have county-wide zoning (NMSA 1978 3-21:5-18). The area must contain at least 150 single-family dwellings, and a minimum of 51 percent of the registered electors residing within the area must sign a petition requesting it. The petition and plat of the district are then filed with the county clerk. For example, two special zoning districts (SZDs) were adopted in Northern Socorro County on the east and west sides of the Rio Grande following a political battle over a power plant that sought to locate on 50 acres along the river in 2002. Residents eventually convinced the County Commission to defeat the proposal but decided to create the two special zoning districts to better control land uses along the river (Northern Socorro County 2006).

2. Potential loss of irrigated agriculture and rural, small town atmosphere

Many residents at the public meetings expressed how much they value the small town, rural way of life and community in Luna County. They deeply appreciate the scenery and topography, the sunshine and clean air, the wide open spaces and being able to see the stars at night.

It is increasingly difficult for farmers and ranchers to make a living, however. Farm operators are aging, and some 40 percent in 2007 reported that they were engaged in other primary occupation. The aquifer is slowly being mined.

A related issue is food security. Grocery stores in the industrialized world operate on highly efficient, just-in-time, long distance supply chains. The average grocery store item travels more than 1,500 miles from the field to people's plates. These systems have become so efficient that cities have little more than a three-day supply of food on hand at any given time. "If those supply chains were to grind to a halt due to a food crisis, border closure, war or environmental catastrophe, the grocery store shelves would be empty in days" (Cockrall-King 2012). Looking at it from this perspective, retaining local agriculture rises to a level of protecting public health, safety and welfare.

Possible Solutions

Other states and counties throughout the country are also facing the loss of farmland and open space. They have fashioned various solutions to help preserve their agricultural land.

- Many counties have adopted Right-To-Farm Ordinances, which protects farmers from nuisance suits filed by newly arrived neighbors.
- Farmers in some areas have formed voluntary agricultural districts where commercial agriculture is encouraged and protected. Common benefits of enrollment in such districts include automatic eligibility for differential assessment, protection from eminent domain and municipal annexation, enhanced right-to-farm protection, and exemption from special local tax assessments.
- Farmers and ranchers could place conservation easements on all or part of their property.
- The Rio Grande Agricultural Land Trust operating out of Socorro, NM, is using some federal funds available through the USDA (Farm and Ranchland Protection Program) to purchase development rights on private

agricultural lands. It provides up to 50 percent of the purchase price if the other 50 percent is matched locally. This allows farmers who want to continue farming to realize additional income from their land while still continuing to farm.

- Carroll County, MD, has one of the most successful farm preservation programs in the country. Their strategy incorporated the following steps. The first two actions set the stage for their program while the last was implemented to afford farmland permanent protection. The county's goal was to preserve 100,000 acres of farmland, which was calculated as the needed critical mass to ensure a viable agricultural industry.
- The county adopted agricultural zoning that allowed one dwelling unit per 20 acres with a minimum lot size of one acre.
- They created an agricultural district with a minimum of 100 acres of good quality soils where the land would stay in agriculture for five years and not be subdivided except for homes for the owner's children or farm laborers
- The county instituted a purchase of development rights program. The State of Maryland annually appropriates funds for purchasing development rights from farmers whose land is in agricultural districts. Carroll County also contributes to this.

While funding purchase of development rights might be difficult in New Mexico, which has a smaller tax base, Luna County could consider requiring lower density zoning outside the urban centers on irrigated farmland it wants to retain. It could require five, ten or more acres per dwelling unit or allow clustering of residences on a portion while conserving the remaining acreage.

Cluster Housing Subdivisions

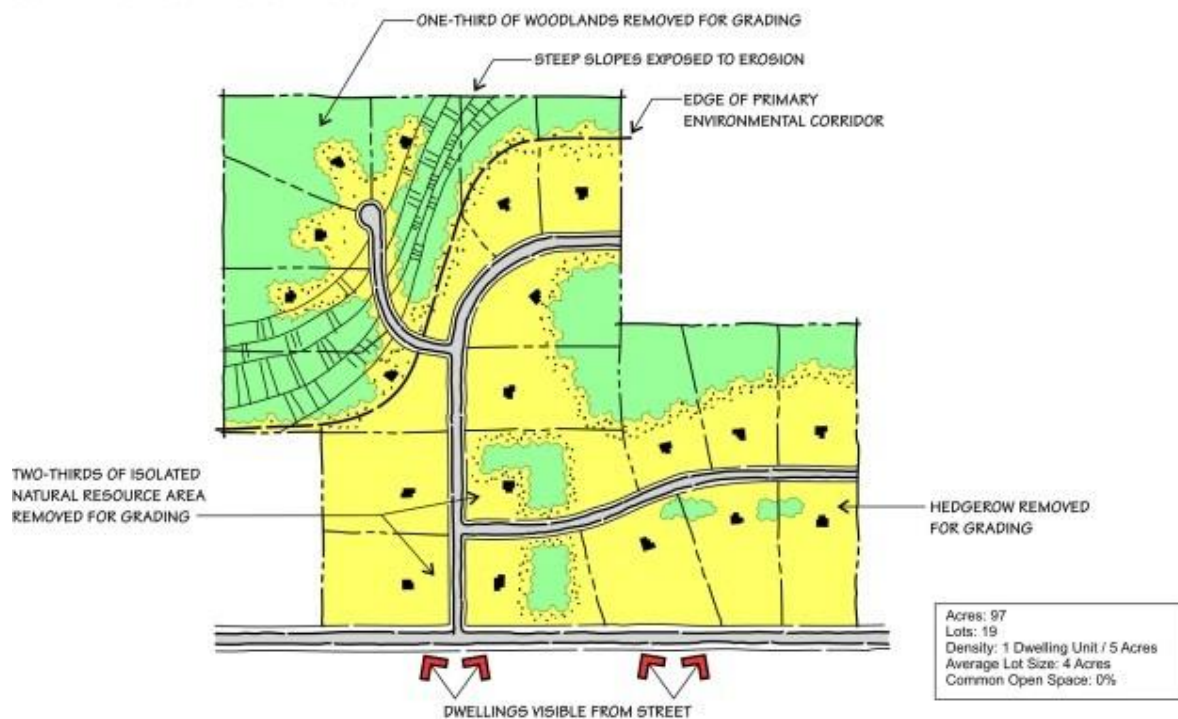
For more permanent preservation of agriculture and open space land, the County could consider allowing and promoting conservation or cluster subdivisions. These developments site their residential units on smaller lots along an internal roadway while setting aside other portions of the land (from perhaps a fourth to half the total subdivision area) as undivided permanent agricultural land or open space through a conservation easement or other method (see Figure 3). Such developments can lower the cost of infrastructure, lower site preparation costs, and increase design flexibility. They also provide residents with visual relief, cooling effects, places for recreation, and reduction of flood risks.

Rio Arriba County in northern New Mexico adopted a version of this through their Agricultural Protection and Enhancement Ordinance

(Appendix Q, Land Subdivision Regulations, 2002). Lots within the Cluster Development Agricultural Overlay Zone must maintain at least 70 percent of the lot as “agricultural open space” through a deed restriction and no more than 30 percent of the lot as “buildable area” for new residential lots. Uses permitted within the “agricultural open space” are limited to agriculture, liquid waste disposal systems required for development in the “buildable” area, parks and recreation areas, and accessory structures related to agriculture such as a greenhouse, garage for farm equipment, corral, barn or other similar uses. Shared wells are required for lots less than three quarters of an acre in the buildable area.

Figure 10. Comparison of Conventional and Cluster Subdivision Design

CONVENTIONAL SUBDIVISION DESIGN



CONSERVATION SUBDIVISION DESIGN



D. Land Use Goals and Strategies

Land Use Goal 1: Ensure that all land uses in the county occur in a compatible and predictable manner, protecting the public safety, health, and welfare and minimizing negative impacts of incompatible land uses.

- Strategy a. Develop performance standards for land uses.
- Strategy b. Establish Critical Management Areas in the county where development should not occur, such as in floodplains, sensitive natural areas, and irrigated agricultural land.
- Strategy c. Strengthen County land development regulations to address poor development practices.
- Strategy d. Ensure that the Code Enforcement Department has all the necessary resources to adequately enforce all land use codes.

Land Use Goal 2: Minimize impacts of large-scale development (industrial, wind towers, transmission lines, etc.) on visual resources.

- Strategy a. Encourage industrial development to locate within existing industrial parks.
- Strategy b. Establish a utility corridor in Luna County where new large-scale developments such as energy transmission lines and wind towers could be consolidated.
- Strategy c. Allow new large-scale developments such as energy transmission lines and wind towers to be established only in the pre-approved utility corridor.
- Strategy d. Identify areas outside industrial parks for commercial and industrial development.
- Strategy e. Develop performance and/or development standards for large industrial developments in the county to insure negative impacts on the environment and communities are minimized.

Land Use Goal 3. Address land use issues related to the Deming Ranchettes/ colonias developments.

- Strategy a. Develop an overall plan and priority list for resolving infrastructure needs in the Deming Ranchettes.
- Strategy b. Develop a master land use and utility plan for each ranchette subdivision.
- Strategy c. Apply for colonias funding for ranchette subdivisions that qualify.
- Strategy d. Strategically acquire tax delinquent ranchette lots with the long-term goal of consolidating properties and vacating the antiquated plats.
- Strategy e. Develop lot size standards for Deming Ranchettes that encourage lot consolidation.

Land Use Goal 4: Encourage compact development patterns near municipalities to minimize sprawl and use existing infrastructure efficiently.

- Strategy a. Amend existing regulations to provide more flexible residential and mixed-use (commercial, residential, and public) development such as Planned Unit Developments and cluster housing developments.
 - Promote cluster developments in which groups of two to six dwellings share a well and liquid waste disposal system.
- Strategy b. Identify areas in the county where it might be feasible to create cluster developments with shared utilities.
- Strategy c. Develop a list of incentives – for example, fee waivers or streamlined processing – to offer applicants who wish to create more compact developments.
- Strategy d. Draft low impact development guidelines such as water harvesting and gray water re-use for private development and encourage this practice as a voluntary effort.
- Strategy e. Encourage or require smaller lots and compact development patterns within or near existing communities. Reserve larger lots for rural areas.
- Strategy f. Ensure that development near city water and sewer lines hooks up to that utility system.

- Evaluate whether to offer financial incentives such as grants or loans to encourage connections or to require connections or both.

Land Use Goal 5: Address substandard living conditions in the county's colonias.

- Strategy a. Develop a master plan for each colonia in cooperation with its residents to plan for future development, water, roads, drainage and housing.
- Strategy b. Work with existing colonias to prioritize affordable infrastructure improvements that can be sustained and maintained by the residents over time.
- Strategy c. Identify and secure funding to make needed infrastructure improvements.

Land Use Goal 6: Encourage sustainable development through green building and development techniques.

- Strategy a. Provide incentives for energy-efficient construction such as passive solar building, improved insulation, and use of renewable energy.

Land Use Goal 7: Maintain traditional agricultural uses, and protect agricultural lands from being lost.

- Strategy a. Work with local agriculturalists to better understand the pressures and specific issues threatening agricultural land in Luna County.
- Strategy b. Create a lower property tax assessment for productive agricultural lands.
- Strategy c. Promote the use of conservation easements within the county.
- Strategy d. Establish an Agricultural Conservation Zoning District.
- Strategy e. Allow for clustered development and offer density bonuses to encourage the conservation of productive agricultural lands while still allowing for development.
- Strategy f. Adopt a Right-to-Farm Ordinance.

Land Use Goal 8: Protect Luna County's historic sites.

- Strategy a. Establish standards for proposed developments located near historic sites to minimize negative impacts
- Strategy b. Establish a Historic Preservation zoning district
- Strategy c. Create a Historic Preservation Committee
- Strategy d. Work with Deming's MainStreet organization.

Chapter 5: Housing

The Housing element of the comprehensive plan is intended to guide Luna County's efforts to provide or assist housing agencies to provide affordable housing and equal housing opportunities for residents. The Housing element establishes goals, objectives and policies for improving housing quality, increasing housing variety and affordability, providing adequate sites for housing and housing opportunities for all segments of the community. Actions that the County will take to implement these goals, objectives and policies are identified.

This component identifies existing housing conditions and trends, analyzes how well available housing meets local needs and projects future housing needs. It also establishes long-range goals and strategies for the County to follow in meeting those needs.

The Housing element contributes to an Affordable Housing Plan and ordinance by following the guidelines of the New Mexico Mortgage Finance Authority for addressing the needs of primarily low and moderate income persons or households.

A. Housing Profile – Housing Supply and Condition

Estimates of the number of housing units with specific characteristics come from the American Community Survey, which is conducted on an ongoing basis for a sample of households. Information for communities of less than 20,000 is combined across a five-year period to develop these estimates. The official totals for information gathered for the 2010 Census, including total housing units, is the official count. Detailed characteristics are estimated.

1. Housing Occupancy and Tenure

An estimated 83 percent of housing units in Luna County are occupied. The highest vacancy rate is in Columbus, with over 36% of housing being vacant. In the unincorporated County, 22.2% of housing is vacant. The owner and renter vacancy rates are much less – much of the vacant housing is not available for sale or rent. Public input and interviews with local experts indicate that a large number of vacant units are in very poor condition and uninhabitable.

Table 7. Housing Occupancy

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Total housing units	11,108		618		5,959		4,531	
Occupied housing units	9,204	82.9%	394	63.8%	5,286	88.7%	3,524	77.8%
Vacant housing units	1,904	17.1%	224	36.2%	673	11.3%	1,007	22.2%
Homeowner vacancy rate	1.70%	(X)	2.60%	(X)	0.20%	(X)	(X)	(X)
Rental vacancy rate	7.20%	(X)	10.60%	(X)	6.30%	(X)	(X)	(X)

Source: US Census Bureau, 2006-2010 American Community Survey

The unincorporated area of Luna County has a higher homeownership rate than the municipalities. Deming has a higher percentage of rental housing than the County or Columbus. In the county overall, 69.5 percent of occupied housing is owner-occupied. In Columbus, 73.4 percent of housing is owner-occupied, and in Deming, 61.8 percent is owner-occupied. In the unincorporated areas of the county, 77.8 percent is owner-occupied.

Table 8. Housing Tenure

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Occupied housing units	9,204		394		5,286		4,531	
Owner-occupied	6,401	69.5%	289	73.4%	3,265	61.8%	3,524	77.8%
Renter-occupied	2,803	30.5%	105	26.6%	2,021	38.2%	1,007	22.2%
Average household size of owner-occupied unit	2.65		3.15		2.81		(X)	(X)
Average household size of renter-occupied unit	2.86		3.56		2.67		(X)	(X)

Source: US Census Bureau, 2006-2010 American Community Survey

The status of vacant housing units is shown in Table 9. An estimated 13 percent of vacant units are for rent or rented but not yet occupied, and 9.3 percent are for sale or sold but not yet occupied. Approximately 36 percent are for occasional use, and a small number were identified as being for migrant workers. Approximately 40 percent of the vacant housing is classified as “other.” Stakeholder interviews indicated that a large number of vacant houses in the County are uninhabitable, and the large number of vacant units that aren’t for sale or rent or for seasonal/occasional use may be a result of this.



Table 9: Status of Vacant Housing Units

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Total:	1,904		224		673		1,007	
For rent	219	11.5%	13	5.8%	135	20.1%	71	7.1%
Rented, not occupied	29	1.5%	5	2.2%	0	0.0%	24	2.4%
For sale only	110	5.8%	8	3.6%	7	1.0%	95	9.4%
Sold, not occupied	67	3.5%	14	6.3%	53	7.9%	0	0.0%
For seasonal, recreational, or occasional use	689	36.2%	107	47.8%	216	32.1%	366	36.3%
For migrant workers	41	2.2%	0	0.0%	0	0.0%	41	4.1%
Other vacant	749	39.3%	77	34.4%	262	38.9%	410	40.7%

Source: US Census Bureau, 2006-2010 American Community Survey

2. Housing Units by Type

Nearly 60 percent of the housing in the County is single family detached, and an additional 32 percent is mobile homes. In the unincorporated County, mobile homes are a higher percentage of housing, with 42.6 percent of all units being mobile homes. Most of the County’s multifamily housing is in Deming. Overall, multifamily is only 1.5 percent of the total housing stock.



Table 10: Units in Structure

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Total housing units	11,108		618		5,959		4,531	
1-unit, detached	6,376	57.4%	317	51.3%	3,535	59.3%	2,524	55.7%
1-unit, attached	96	0.9%	0	0.0%	96	1.6%	0	0.0%
2 units	183	1.6%	8	1.3%	165	2.8%	10	0.2%
3 or 4 units	435	3.9%	18	2.9%	376	6.3%	41	0.9%
5 to 9 units	203	1.8%	13	2.1%	172	2.9%	18	0.4%
10 to 19 units	65	0.6%	0	0.0%	65	1.1%	0	0.0%
20 or more units	122	1.1%	0	0.0%	122	2.0%	0	0.0%
Mobile home	3,550	32.0%	256	41.4%	1,365	22.9%	1,929	42.6%
Boat, RV, van, etc.	78	0.7%	6	1.0%	63	1.1%	9	0.2%

Source: US Census Bureau, 2006-2010 American Community Survey

3. Age of Housing

Nearly 60 percent of housing units in the County were built from 1970 to 2000. The number of new units from 2000 to 2010 was less than in each of the prior three decades. The greatest housing growth in the unincorporated County occurred from 1980 to 2000, when half the growth in the County was in unincorporated areas.

Table 11: Year Built

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Total housing units	11,108		618		5,959		4,531	
Built 2005 or later	582	5.2%	6	1.0%	398	6.7%	178	3.9%
Built 2000 to 2004	900	8.1%	57	9.2%	443	7.4%	400	8.8%
Built 1990 to 1999	2,020	18.2%	123	19.9%	671	11.3%	1,226	27.1%
Built 1980 to 1989	2,390	21.5%	177	28.6%	1,068	17.9%	1,145	25.3%
Built 1970 to 1979	2,082	18.7%	152	24.6%	1,036	17.4%	894	19.7%
Built 1960 to 1969	1,069	9.6%	40	6.5%	754	12.7%	275	6.1%
Built 1950 to 1959	1,104	9.9%	49	7.9%	797	13.4%	258	5.7%
Built 1940 to 1949	440	4.0%	0	0.0%	362	6.1%	78	1.7%
Built 1939 or earlier	521	4.7%	14	2.3%	430	7.2%	77	1.7%

Source: US Census Bureau, 2006-2010 American Community Survey

Housing by type and age (Table 12) indicates units that may need rehabilitation or replacement. Older mobile homes may not be in good enough condition to provide decent, safe housing.

Table 12: Units in Structure by Year Built

	Luna County	Columbus	Deming	Unincorporated County
Total:	9,204	394	5,286	3,524
Owner occupied:	6,401	289	3,265	2,847
Built 2000 or later:	978	21	485	472
1, detached or attached	748	15	400	333
Mobile home, boat, RV, van, etc.	230	6	85	139
Built 1980 to 1999:	2,612	160	968	1,484
1, detached or attached	1,369	86	501	782
Mobile home, boat, RV, van, etc.	1,243	74	467	702
Built 1960 to 1979:	1,869	78	1,064	727
1, detached or attached	1,267	27	798	442
2 to 4	7	0	7	0
Mobile home, boat, RV, van, etc.	595	51	259	285
Built 1940 to 1959:	723	25	585	113
1, detached or attached	723	25	585	113
Built 1939 or earlier:	219	5	163	51
1, detached or attached	219	5	163	51
Renter occupied:	2,803	105	2,021	677
Built 2000 or later:	336	5	289	42
1, detached or attached	128	5	110	13
2 to 4	22	0	22	0
5 to 19	87	0	69	18
50 or more	8	0	8	0
Mobile home, boat, RV, van, etc.	91	0	80	11
Built 1980 to 1999:	1,028	36	635	357
1, detached or attached	252	20	103	129
2 to 4	200	9	191	0
5 to 19	50	3	47	0
20 to 49	24	0	24	0
50 or more	21	0	21	0
Mobile home, boat, RV, van, etc.	481	4	249	228
Built 1960 to 1979:	736	47	571	118
1, detached or attached	340	9	262	69
2 to 4	100	7	93	0
5 to 19	40	0	40	0
20 to 49	20	0	20	0
50 or more	49	0	49	0
Mobile home, boat, RV, van, etc.	187	31	107	49
Built 1940 to 1959:	553	12	394	147
1, detached or attached	319	12	190	117
2 to 4	150	0	140	10
5 to 19	53	0	53	0
Mobile home, boat, RV, van, etc.	31	0	11	20
Built 1939 or earlier:	150	5	132	13
1, detached or attached	128	5	110	13
2 to 4	14	0	14	0
5 to 19	8	0	8	0

Source: US Census Bureau, 2006-2010 American Community Survey

B. Housing Market

In September 2012, a listing of all residential properties listed on Homes.com was compiled and analyzed for price, number of bedrooms and location (Deming, Columbus, unincorporated area). A total of 141 properties were listed, ranging in price from \$29,000 to \$395,000.

The properties listed include ten foreclosures and three properties that are Fannie Mae HomePath properties, with down payment of as little as three percent for eligible buyers.

The income range able to purchase properties at the listed prices was determined based on the following assumptions: 4.0 percent interest, a 5 percent down payment, and calculations of property taxes, homeowners insurance, and PMI based on local costs. Other potential debts, such as automobile or consumer loans, that could affect a households borrowing capacity were not considered. Household size was not considered either, and one and two-bedroom homes may not be suitable, depending on household size.

Using the above assumptions and the standard that households should pay no more than 30 percent of their income for housing, households with incomes less than \$20,000 can afford properties priced up to \$80,000. There were 26 properties available priced from \$29,000 to \$80,000. Lower priced homes are typically smaller and need repairs. Forty-nine properties were priced from \$87,000 to \$148,000 and are generally affordable to households in the \$20,000 to \$34,999 income range. Forty houses were affordable for households with incomes from \$35,000 to \$49,999. Only 26 homes were affordable only to households with incomes greater than \$50,000.

Table 13. Homes for Sale, September 2012, by Income Range and Number of Bedrooms

Income Range	Number of Bedrooms						Unknown	Total
	1	2	3	4	5	6		
Less than \$20,000	4	9	10	2	0	0	1	26
\$20,000 to \$34,999	0	18	24	7	0	0	0	49
\$35,000 to \$49,999	0	7	22	9		1	1	40
\$50,000 to \$74,999	0	3	13	4	1	1	0	22
\$75,000+	0	1	2	1	0	0	0	4
Grand Total	4	38	71	23	1	2	2	141

Source: US Census Bureau, 2006-2010 American Community Survey

The Slate Street development in Deming, a project being built on 12 lots originally owned by the City of Deming and purchased by the Southwest Regional Housing Community Development Corporation (SRH&CDC), is in process. This project stopped temporarily, but has now resumed. Homes are priced at \$98,000 for qualified families. Two homes have been built, and an additional 10 homes will be built in 2012-2013.

A search of local media identified only five units for rent. These units included two houses, one apartment, and two mobile homes. Rents ranged from a low of \$450 per month for a one-bedroom/one-bath house and a two-bedroom/one-bath apartment to \$800 per month for a three-bedroom/two-bath house. The two-bedroom and three-bedroom mobile home rentals were \$600 per month and \$500 per month, respectively. Many rental units are marketed by word of mouth, “for rent” signs, notes posted on local bulletin boards and other similar means, so information about these units is not readily available.

A new apartment complex, Sierra Vista Apartments, is currently under construction in Deming. This is a project of a partnership between JL Gray and Associates and SRH&CDC. The project has twenty-four units in thirteen buildings. A community building and two playgrounds are part of the complex. Units are available to very low to moderate income families, the elderly and persons with disabilities. The USDA Rural Development Multi-Family Housing Program and low income housing tax credits through the New Mexico Mortgage Finance Authority made it possible to provide units that are affordable to very low income families.

Other affordable multi-family projects include Desert Sun Apartments (96 units); which is managed by Tierra Del Sol Housing Corporation, and Mariposa Village senior apartments (60 units), and Rio Mimbres Apartments (60 units) which are managed by JL Gray.

C. Housing Affordability

The generally accepted definition of affordability is for a household to pay no more than 30 percent of its annual income on housing. Families who pay more than 30 percent of their income for housing are considered “cost burdened” and may have difficulty affording necessities such as food, clothing, transportation and medical care. The lack of affordable housing is a significant hardship for low-income

households, preventing them from meeting their other basic needs, such as nutrition and healthcare, or saving for their future and that of their families.

The information in Table 14 and Table 165 shows housing costs for households living in both owner occupied and rental housing. Homeowners include those with and without a mortgage. Selected monthly owner costs include the sum of payments for mortgages (first, second, and home equity loans), real estate taxes, insurance, utilities, and fuel. It also includes, where appropriate, monthly mobile home costs such as loan payments, site rent, license fees, etc. Gross rent is the contract rent paid plus utilities, if these are not included in the contract rent.

In unincorporated areas of Luna County, 40.8 percent of homeowners with a mortgage are cost-burdened. Less than 20 percent of homeowners without a mortgage pay have are cost burdened.

Table 14. Selected Monthly Owner Costs as a Percentage of Household Income (SMOCAPI)

	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Housing units with a mortgage	2,820		55		1,474		1,291	
Less than 20.0 percent	932	33.0%	22	40.0%	394	26.7%	516	40.0%
20.0 to 24.9 percent	449	15.9%	20	36.4%	236	16.0%	193	14.9%
25.0 to 29.9 percent	256	9.1%	9	16.4%	191	13.0%	56	4.3%
30.0 to 34.9 percent	322	11.4%	0	0.0%	143	9.7%	179	13.9%
35.0 percent +	861	30.5%	4	7.3%	510	34.6%	347	26.9%
Not computed	14		4		10		0	
Housing unit without a mortgage	3,523		230		1,781		1512	
Less than 10.0 percent	1,742	49.4%	45	19.6%	902	50.6%	795	52.6%
10.0 to 14.9 percent	561	15.9%	78	33.9%	236	13.3%	247	16.3%
15.0 to 19.9 percent	261	7.4%	31	13.5%	185	10.4%	45	3.0%
20.0 to 24.9 percent	146	4.1%	0	0.0%	49	2.8%	97	6.4%
25.0 to 29.9 percent	191	5.4%	45	19.6%	92	5.2%	54	3.6%
30.0 to 34.9 percent	183	5.2%	11	4.8%	107	6.0%	65	4.3%
35.0 percent +	439	12.5%	20	8.7%	210	11.8%	209	13.8%
Not computed	44		0		0		44	

Source: US Census, 2006-2010 American Community Survey 5-Year Estimates

Note: Estimates exclude units where SMOCAPI cannot be computed

Renters are more likely to have a cost burden than are homeowners. As shown in Figure 12, nearly 45 percent of renters in the County – 1,081 households – are cost burdened. This percentage is much higher for households in Columbus and the unincorporated areas of the County, where 66.3 percent and 68.3 percent respectively are cost-burdened. In Columbus an estimated 61 renter households are cost burdened. In unincorporated areas of the County, an estimated 386 renter households are cost-burdened.

Table 15. Gross Rent as a Percentage of Household Income (GRPI)

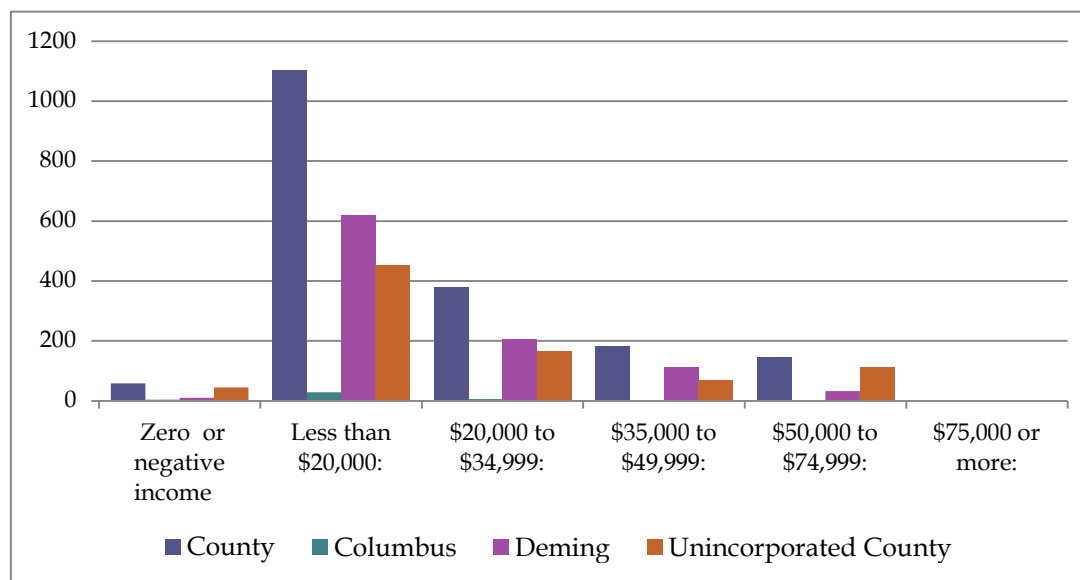
	Luna County		Columbus		Deming		Unincorporated County	
	Estimate	Percent	Estimate	Percent	Estimate	Percent	Estimate	Percent
Occupied units paying rent	2,420		92		1,763		565	
Less than 15.0 percent	488	20.2%	9	9.8%	427	24.2%	52	9.2%
15.0 to 19.9 percent	158	6.5%	22	23.9%	125	7.1%	11	1.9%
20.0 to 24.9 percent	417	17.2%	0	0.0%	397	22.5%	20	3.5%
25.0 to 29.9 percent	276	11.4%	0	0.0%	180	10.2%	96	17.0%
30.0 to 34.9 percent	111	4.6%	4	4.3%	107	6.1%	0	0.0%
35.0 percent or more	970	40.1%	57	62.0%	527	29.9%	386	68.3%
Not computed	383		13		258		112	

Source: US Census, 2006-2010 American Community Survey 5-Year Estimates

Note: Estimates exclude units where GRPI cannot be computed

Housing in Luna County is generally affordable to households with incomes above \$35,000. Not surprisingly, households with incomes of \$20,000 or less have a difficult time affording housing. In the unincorporated county, an estimated two-thirds of homeowners and 87 percent of renters with incomes below \$20,000 pay more than 30 percent of their monthly income for housing. This cost burden affects an estimated 453 homeowners and 330 renters in the unincorporated county. There are a few households that pay no cash rent – they may be living free of charge in a house owned by a relative, house sitting or in a similar situation. There are a few of these households with a cost burden, likely a result of utility costs.

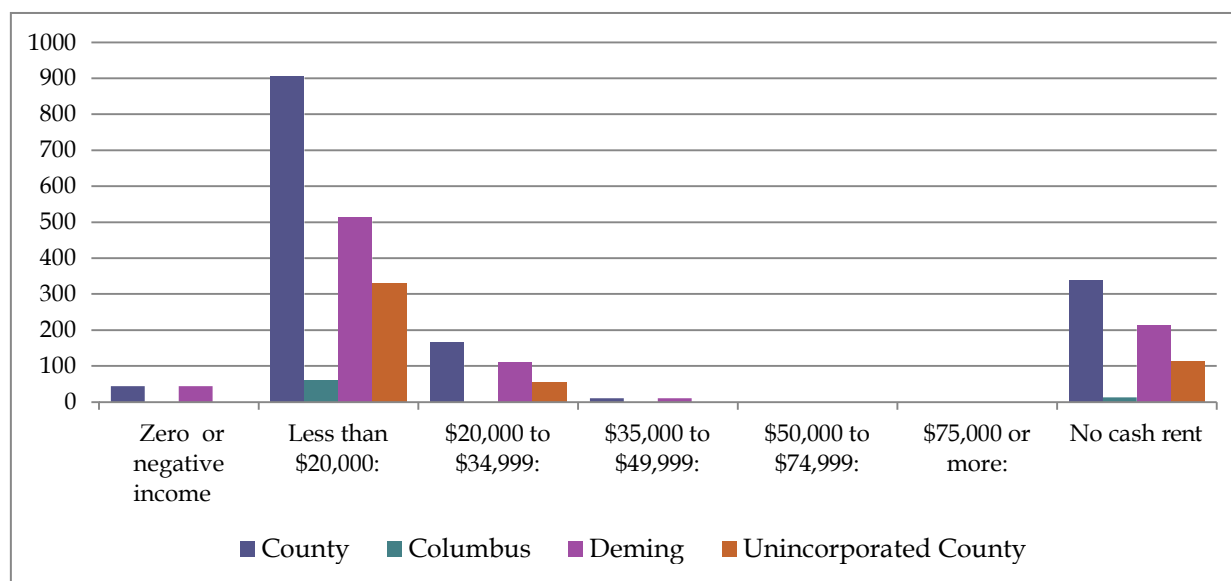
Figure 11. Homeowners Paying More than 30 Percent of Income for Selected Monthly Owner Costs by Income Level



Source: US Census, 2006-2010 American Community Survey 5-Year Estimates

Note: Estimates exclude units where SMOCAP cannot be computed

Figure 12. Renter Households Paying More than 30 Percent of Income for Gross Rent by Income Level



Source: US Census, 2006-2010 American Community Survey 5-Year Estimates

Note: Estimates exclude units where GRAP cannot be computed

The definition of very low, low and moderate income households varies by household size. For analysis purposes, a family of four is considered to be typical, although there is a wide variation in household sizes. In Luna County, 26.4 percent of householders are single persons living alone. Fourteen percent are householders over 65 living alone.

Table 16: Luna County USDA Income Limits, 2012

	1- Person	2- Person	3- Person	4- Person	5- Person	6- Person	7- Person	8+ Person
Very Low Income	16,700	19,100	21,500	23,850	25,800	27,700	29,600	31,500
Low Income	26,700	30,500	34,350	38,150	41,200	44,250	47,300	50,350
Moderate Income	32,200	36,000	39,850	43,650	46,700	49,750	52,800	55,850
Adj. Median Income	33,400	38,200	43,000	47,700	51,600	55,400	59,200	63,000

Source: www.rurdev.usda.gov

D. Low- and Moderate-Income Housing Providers

Southwest Regional Housing and Community Development Corporation (SRH&CDC) is a nonprofit organization that provides safe, affordable housing and continued community development for low-to-moderate income residents of New Mexico. SRH&CDC began in 2001 as Luna County Housing Corporation. The name was changed in 2008 to better reflect the scope of services and service area of the agency.

SRH&CDC serves the entire state with emphasis in Luna, Hidalgo, Grant, Sierra and Catron Counties.

Services provided by the agency include:

- Development of single family homes for sale. Slate Street single family homes are a recent homeownership project.
- Development of multi-family complexes. SRH&CDC partnered with JL Gray to build the Mariposa Village senior apartments and the Sierra Vista multi-family apartments, which are currently under construction. These projects are described earlier in the chapter.
- Rehabilitation of owner-occupied housing for qualifying residents. This program helps people on fixed incomes who can't repair homes they already own. The program covers costs up to \$65,000. There is a waiting list of over 100 eligible homeowners. Luna county has the most need in the region served by SRH&CDC. If housing is dilapidated beyond repair, SRH&CDC will remove the dilapidated structure and provide a new mobile home.
- Weatherization and Energy Audits.

- Credit counseling for individuals.
- Financial literacy and home buyer education classes.
- Foreclosure intervention for individuals.
- Matched Individual Development Accounts.

SRH&CDC is continually looking for other funding sources and community development opportunities. At the present time, the majority of funding comes from federal sources channeled through the New Mexico Mortgage Finance Authority. However, support and contributions have been received from individual members in the community as well as local governments.

Western Regional Housing Authority (WHRA). Located in Silver City, the Western Regional Housing Authority administers Section 8 vouchers for Grant, Luna Hidalgo and Catron counties. The Section 8 voucher program reduces a tenant's rent payment to 30 percent of their household income. WRHA provides tenant-based rental assistance to families in Luna County. This program may provide one-time security deposits, one-time utility deposits, and rental assistance of up to 11 months for eligible families. The need in Luna County exceeds the available assistance for all of these programs.

E. Housing Needs Assessment

1. Projected Need to Accommodate Population Growth

The Bureau of Business and Economic Research (BBER) at the University of New Mexico prepares county-level population projections periodically. The most recent data projected the Luna County population to grow from 25,095 in 2010 to 35,647 in 2035. If growth had occurred as projected, the county would be home to an additional 10,000 residents by 2035. Based on the existing average household size, an additional 3,500 to 4,000 housing units would be needed.

Actual county growth from 2000 to 2010, however, was less than projected by the BBER – 25,095 compared with the projected population of 27,985 in 2010. The population count remained essentially the same, with an increase of approximately 79 people.

Comments received at public meetings verified that growth has been very slow, and meeting participants suggested that the county should plan for low growth rates in the future.

Under a slow growth scenario, the focus of housing programs would be on market rate housing to meet current needs and limited future growth, housing rehabilitation and replacement, and affordable options for low and very low income households.

2. Need for Market Rate Housing

There is market rate housing for sale in the county, especially if purchasers do not have to make an immediate purchase. The greatest need in market rate housing is for rentals. Local employers, including Mimbres Memorial Hospital, the Border Patrol, and others feel that there is a need for market rate rental housing for their employees. Because market rate rentals are very limited, families either don't take jobs in Deming or the workers commute from communities as far away as Las Cruces. Market rate rental housing would allow families to find housing immediately, giving them time to become familiar with local neighborhoods and homes for sale.

3. Need for Affordable Housing

Because of the high rate of poverty in Luna County, there is a need for affordable rental housing, either through housing choice vouchers or through affordable and mixed income housing projects. Additional Section 8 vouchers and new rental housing are both needed.

Based on the review of homes for sale in Luna County, there are moderately priced homes available to meet affordable housing needs. First time homebuyers, including young families and those employed in lower wage jobs, are primary candidates for workforce housing and affordable homeownership projects. SRH&CDC is the primary entity in Luna County providing new affordably priced homes that meet affordable homeownership needs.

4. Need for Housing Rehabilitation

Luna County has a significant number of old homes, and the cost to repair them is high. Unoccupied homes that are not habitable show in vacancy statistics, so the real need is not obvious in Census statistics. The SRH&CDC's waiting list for

housing rehabilitation exceeds 100 families. In the region that SRH&CDC serves, Luna County has the greatest need for housing rehabilitation.

The need is twofold. First, housing units that can be repaired should be noted. Second, housing that is dilapidated beyond repair should be demolished and removed from the County's housing inventory. Code enforcement is the key to highlighting the need for rehabilitation and demolition. Enforcement would encourage investment in properties that can be repaired and encourage property owners of unsafe structures to demolish them.

When property owners allow properties to deteriorate to a point where the house is dilapidated and dangerous, the goal is to eliminate dangerous buildings. Counties in New Mexico have statutory authority to condemn dangerous buildings. In addition, adequate funding and political support are necessary to implement a program to eliminate dilapidated, unsafe buildings.

5. Special Needs Housing

The New Mexico Mortgage Finance Authority (NMMFA) requires that affordable housing planning take into account the affordable housing needs of specific populations with special needs. These include people with disabilities, the elderly, large households, female-headed households, the homeless and others that may have specific housing needs, such as transitional or temporary housing or some type of assistance as part of their housing.

People with Disabilities. The most recent estimates of people with disabilities for small counties in New Mexico are from the American Community Survey 2008-2010 three-year estimates. These estimates are based on sample data collected over a three year period. Most people with disabilities in the county (95%) are adults, and nearly half are ages 65 and older.

An estimated 13.8 percent of adults aged 18 to 64 have a disability, and 44 percent of people aged 65 and over have a disability. These include a variety of disability types, each with different housing needs. The disability types are not exclusive, so people may have more than one disability. Therefore, the estimates by type of disability in Table 17 count the same person more than once.

Housing needs include housing that is accessible and usable by people with ambulatory difficulty. Homes that meet standards for universal design meet the needs of those with existing disabilities and may be appropriate for elderly households.

People with self-care difficulties and independent living difficulties are candidates for special needs housing that includes supportive services, such as assisted living facilities. Services may vary with the target population but could include case management, training in independent living skills and assistance in obtaining employment.

Table 17. Estimates of Luna County Residents with Disabilities

	Total Population	With a disability	Percent with a disability
Total civilian non-institutionalized population	24,988	4,102	16.40%
Population under 5 years	1,877	49	2.60%
With a hearing difficulty	(X)	49	2.60%
With a vision difficulty	(X)	38	2.00%
Population 5 to 17 years	4,943	156	3.20%
With a hearing difficulty	(X)	0	0.00%
With a vision difficulty	(X)	25	0.50%
With a cognitive difficulty	(X)	131	2.70%
Population 18 to 64 years	13,568	1,875	13.80%
With a hearing difficulty	(X)	320	2.40%
With a vision difficulty	(X)	303	2.20%
With a cognitive difficulty	(X)	1,005	7.40%
With an ambulatory difficulty	(X)	912	6.70%
With a self-care difficulty	(X)	257	1.90%
With an independent living difficulty	(X)	705	5.20%
Population 65 years and over	4,600	2,022	44.00%
With a hearing difficulty	(X)	840	18.30%
With a vision difficulty	(X)	525	11.40%
With a cognitive difficulty	(X)	510	11.10%
With an ambulatory difficulty	(X)	1,433	31.20%
With a self-care difficulty	(X)	528	11.50%
With an independent living difficulty	(X)	857	18.60%
Total population	24,988	4,102	16.42%
With a hearing difficulty	(X)	1,209	4.84%
With a vision difficulty	(X)	891	3.57%
With a cognitive difficulty	(X)	1,646	6.59%
With an ambulatory difficulty	(X)	2,345	9.38%
With a self-care difficulty	(X)	785	3.14%
With an independent living difficulty	(X)	1,562	6.25%

Source: US Census Bureau, 2008-2010 American Community Survey

Female-headed Households. These households on average have much lower incomes than married couple or male-headed households. Of the 1,441 female-headed households in the County in 2010, 54 percent were living in poverty. Female-headed families with children are more likely to be living in poverty.

Female-headed families with children under 18 had a median income as reported by the American Community Survey of \$12,300 in 2009 (the 12 months prior to the 2010 Census). This is compared to the county median family income of \$33,312. There were 940 female headed families with children under 18 in the county in 2010. Of these, 721 households have income below the poverty level.

Seniors. Luna County has a high percentage of residents over 65. An estimated 25 percent of senior households (those with a household head aged 65+) have incomes below the poverty level. Within this group, female householders with no husband present, males living alone and females living alone are the most likely to be living in poverty. An estimated 700 senior households have incomes below the poverty level. The County subdivision ordinance establishes a two-acre minimum lot size (without water and wastewater utilities), thus small-lot or multifamily senior housing cannot be built in the unincorporated county under existing ordinances without substantial infrastructure investment. This type of housing may be most appropriate where infrastructure is readily available.

Homeless and Emergency Housing. Because of Luna County's high poverty rate and its location on I-10, there are homeless families in the county as well as transients passing through the area. The Title I Homeless Education Program of Deming Public Schools serves 180 to 200+ cases per year. Private non-profit shelters offer temporary emergency shelter, but there is no transitional housing in the county. Many families who need housing are living with relatives or doubling up, with two to three families in one unit. Non-profits that provide services to the homeless include Helping Hand, Agape, Love, Inc., the Deming Independent Grace Fellowship, and the St. Vincent de Paul Society. Healing House in Deming has 25 shelter beds for victims of domestic violence.

F. The Role of Luna County in Affordable Housing

Luna County is not a housing developer, but it does support non-profit organizations that provide housing and it can remove barriers to new housing development in the county.

NMMFA, the Department of Housing and Urban Development and USDA Rural Development manage programs that enable affordable housing production in New Mexico. Assistance to developers may include Low Income Housing Tax Credits, low interest loans, loan guarantees, and other measures that bring the cost of housing production in line with affordable rents and sales prices. When selecting affordable housing projects to receive this assistance, agencies look for supportive local government policies.

The New Mexico Affordable Housing Act recognizes the importance of affordable housing to the state. Similar to state legislation that allows local governments to provide financial incentives to new economic development projects, the Affordable Housing Act enables local governments to directly participate in affordable housing projects. Local governments must adopt an Affordable Housing Ordinance that spells out how they will participate in such projects and complete and Affordable Housing Plan that justifies the need. Data in the earlier part of this chapter provides some of this information. When local jurisdictions have these documents in place, in combination with other criteria, affordable housing providers have a competitive advantage in seeking tax credits and other financial assistance.

County land use policies should support new housing development or repair and rehabilitation to meet the county's affordable housing needs.

G. Issues and Opportunities

The following housing-related issues were identified through public meetings, interviews, and analysis of the data presented in this chapter.

1. Development throughout the County seems to be haphazard because of the large number of platted lots in antiquated subdivisions. There are related land use issues, including how properties in the ranchettes and colonias will develop in the future and how the existing antiquated subdivisions with inadequate infrastructure will be handled.

2. There is a need for additional affordable housing in the county. Low-to-moderate income residents give up waiting for Section 8 vouchers, even though they need assistance to secure decent, safe housing. Census data supports this need, noting the high percentage of households earning less than \$20,000 per year that are cost-burdened.
3. Surveys indicate a need for senior housing. Census data supports this need.
4. There is a need for market rate housing, including market rate rentals, to provide housing for families who move to Luna County for employment.
5. There is a need to improve the quality of the existing housing stock. Many vacant housing units are in poor condition and not habitable. Low income households, particularly seniors, may own their homes but not have enough income to maintain them.

H. Housing Goals and Strategies

Housing Goal 1: Promote development of a range of housing types at varying prices to meet the needs of Luna County residents.

- Strategy a. Work with Southwest Regional Housing and Community Development Corporation to provide housing for migrant farm workers.
- Strategy b. Work with SRH&CDC to support housing for the elderly and special needs populations – homeless individuals and families, disabled individuals, transitional housing. Higher density housing is most appropriate in communities where infrastructure is available.
- Strategy c. Work with SRH&CDC and other non-profit developers to support affordable and workforce housing projects.
- Strategy d. Work with SRH&CDC to provide housing rehabilitation services in Luna County.
- Strategy e. Provide for multifamily housing in areas with appropriate utilities and roads.

Housing Goal 2: Provide recreational facilities and amenities within or in close proximity to higher density housing areas.

- Strategy a. Consider adopting park dedication requirements as part of the County subdivision ordinance.

Housing Goal 3: Ensure that housing in Luna County meets appropriate standards.

- Strategy a. Enforce County building codes, encouraging owners of dilapidated properties to bring them up to code standards or demolish them.
- Strategy b. Inventory dilapidated properties; dedicate funding to demolish dangerous structures that cannot be repaired.

Housing Goal 4: Support the efforts of local non-profit and other housing providers to build affordable housing in Luna County.

- Strategy a. Adopt an Affordable Housing Ordinance pursuant to the New Mexico Affordable Housing Act. This ordinance could be modeled on the ordinance adopted by the City of Deming.
- Strategy b. Develop an Affordable Housing Plan as defined by the New Mexico Mortgage Finance Authority.

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Chapter 6: Economic Development

The Economic Development element documents existing economic conditions and trends, identifies issues and opportunities related to the local and regional economy and sets out economic development goals and strategies for reaching these goals. A number of factors addressed in other chapters, including housing, transportation, infrastructure, community services and quality of life, are integral to the economic development goals.

A. Existing Conditions and Trends

1. Jobs by Industry Sector

The top industry sectors in Luna County's economy are government at 29 percent of wage and salary jobs, retail trade at 15 percent of jobs, manufacturing at 13 percent and healthcare and social assistance at 10 percent. While agriculture retains a spot in fifth place, the number of agricultural jobs has dropped at an average annual rate of 7.5 percent over the past ten years. The annualized number of agricultural jobs in the county in 2011 was less than half of the total in 2001. As shown in the next section, these jobs as well as manufacturing jobs are cyclical through the year.

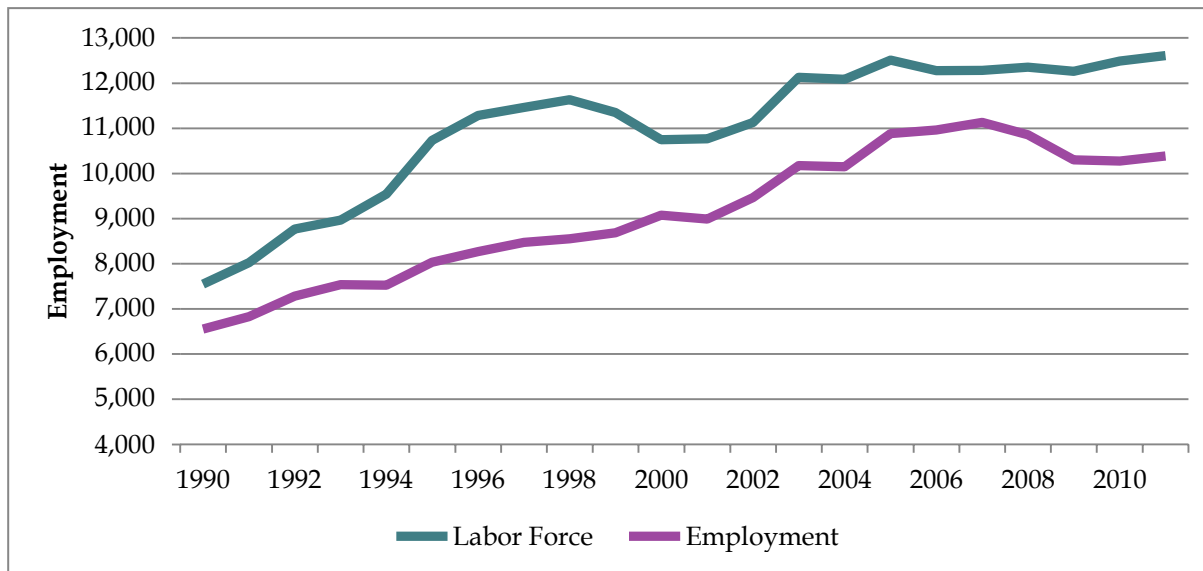
Table 18. Jobs in Luna County by Industry, 2001-2011

Industry	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Average Annual Rate of Change
Agriculture, forestry, fishing & hunting	1,586	1,355	1,338	1,311	1,197	901	890	829	791	721	727	-7.5%
Construction	162	283	201	213	621	425	378	381	208	168	169	0.4%
Manufacturing	998	1,232	1,445	1,248	1,180	1,240	1,107	1,084	961	1,074	975	-0.2%
Wholesale trade	114	115	118	109	101	103	102	91	74	82	123	0.8%
Retail trade	919	1,041	1,201	1,282	1,291	1,341	1,342	1,208	1,137	1,194	1,166	2.4%
Transportation, warehousing, utilities	113	110	121	138	147	149	142	143	139	160	192	5.4%
Finance, insurance, real estate, information	174	211	225	246	224	240	237	209	200	197	166	-0.5%
Professional & technical services	100	83	92	109	114	132	146	160	155	155	155	4.5%
Administrative & waste services	36	43	56	92	132	122	106	84	59	58	50	3.3%
Health care & social assistance	503	508	530	571	575	599	579	584	594	574	785	4.6%
Arts, entertainment & recreation	*	*	46	53	46	41	45	45	71	93	87	NA
Accommodation & food services	524	556	556	564	624	666	763	728	684	691	719	3.2%
Other services, except public admin	140	122	123	128	132	119	124	125	111	112	101	-3.2%
Government	1,682	1,724	1,727	1,778	1,877	1,976	2,084	2,235	2,255	2,263	2,197	2.7%
Other	92	99	172	58	73	75	82	90	76	81	54	-5.2%
Total, All Industries	7,143	7,482	7,951	7,900	8,334	8,129	8,127	7,996	7,515	7,623	7,666	0.7%

Source: NM Department of Workforce Solutions; Bureau of Labor Statistics
Quarterly Census of Employment and Wages

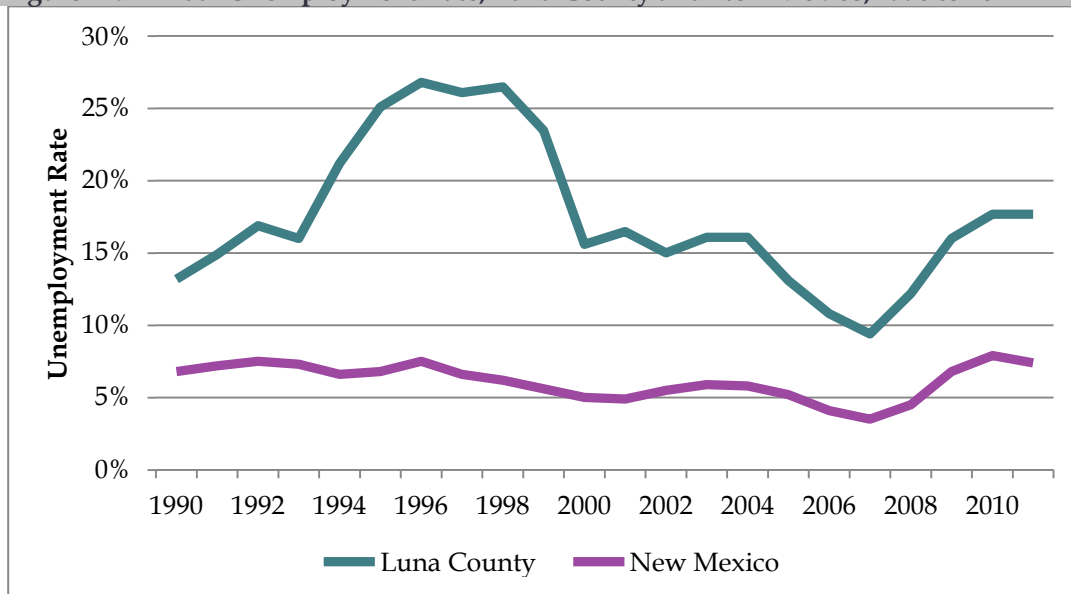
2. Employment – Jobs/Labor Force

Luna County's labor force and the number of employed workers have grown over the past 20 years. As shown in Figure 13, the civilian labor force has grown from 7,551 in 1990 to 12,611 in 2011, an average annual growth rate of 2.5 percent. During the same time period, employment increased from 6,553 employed residents to 10,385, an average annual growth rate of 2.2 percent. The county had an exceptionally high unemployment rate in the mid-1990s, with significant reductions in unemployment since that time.

Figure 13. Civilian Labor Force and Employment Annual Estimates, 1990 to 2011

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

Statistics report an annual average unemployment rate in 2011 of 17.7 percent, compared to 7.4 percent for all of New Mexico. Figure 14 shows the annual unemployment rate from 1990 through 2011 for Luna County and New Mexico. Luna County's unemployment rate is consistently higher than the state's. The unemployment rate in Luna County has declined dramatically since the mid-1990s.

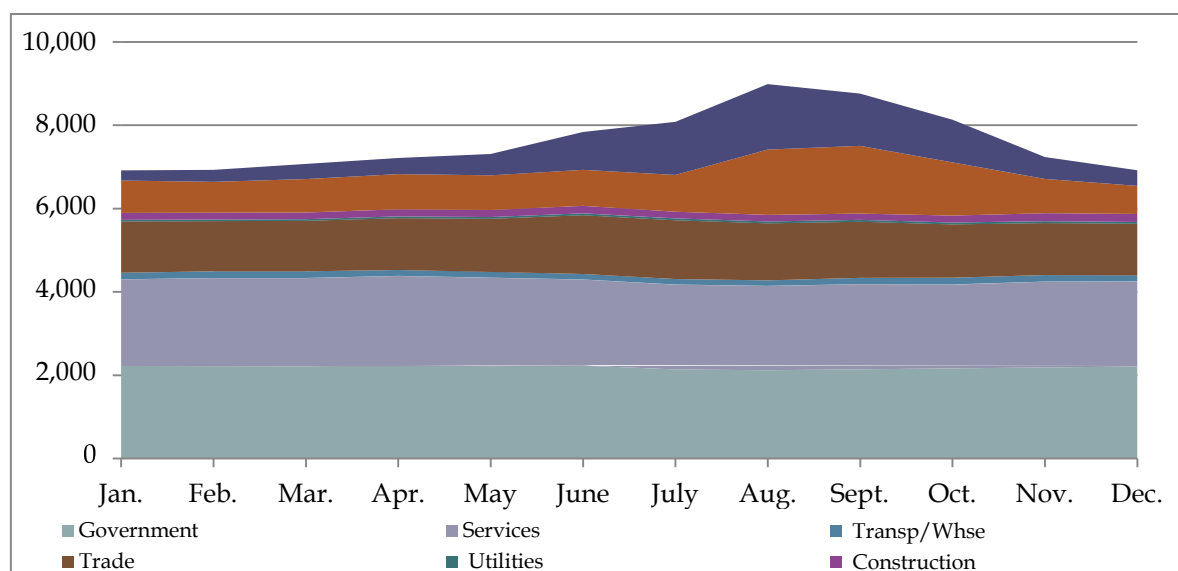
Figure 14. Annual Unemployment Rate, Luna County and New Mexico, 1990 to 2011

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics

Employment in Luna County during the year is cyclical with the lowest unemployment rates during August, September and October. For example in 2011, the BLS LUAS statistics reported an unemployment rate of 21.1 percent in February and March, which dropped to 13 percent in September.

The Quarterly Census of Employment and Wages reports employment by month as well as annual averages. A review of employment by month and by major industry sector shows the cyclical nature of certain industry sectors in Luna County. Monthly employment by industry sector for 2011, which is typical of the cycle in all years, is shown in Figure 15. In most sectors, employment is steady throughout the year. However, agriculture and manufacturing, a portion of which is related to agriculture, gear up during the summer and fall.

Figure 15. Monthly Employment by Industry Sector, 2011



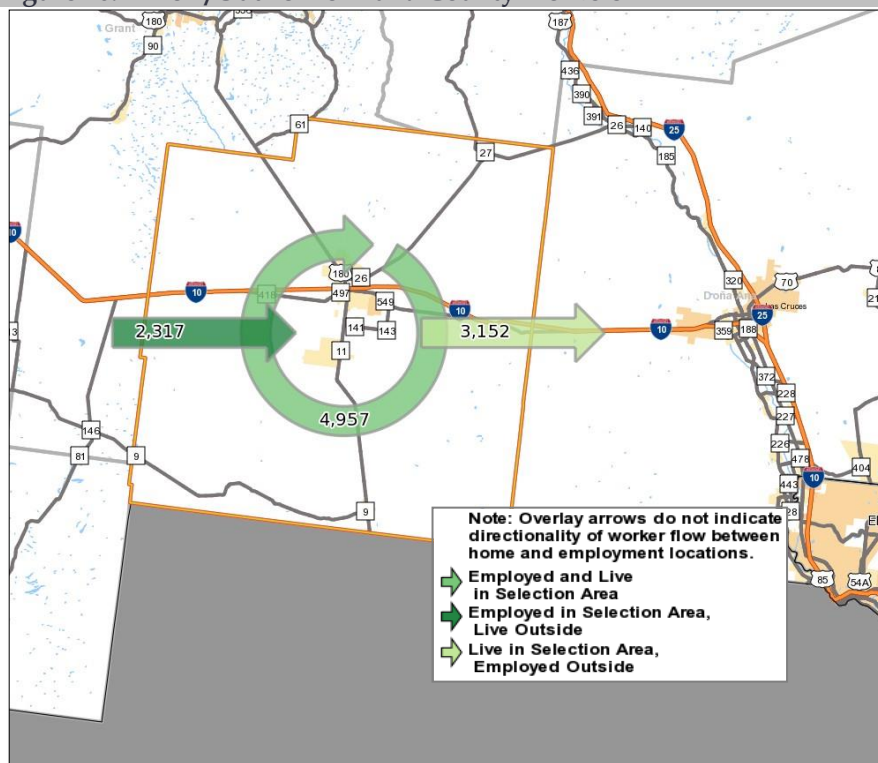
Source: BLS, Quarterly Census of Employment and Wages, 2012

3. Jobs by Location of Workers

The Census reported 8,109 workers living in Luna County in 2010 and 7,274 jobs. Note that the Census figures do not match the jobs reported by the Department of Workforce Solutions, the result of different data sources. Figure 16 shows that 4,957 of these workers lived and worked in Luna County, and 3,152 workers commuted to locations outside of the community to work. At the same time, 2,317 workers commuted into Luna County to work. The numbers show a

net outflow of 835 workers. The county's workforce can support local job growth.

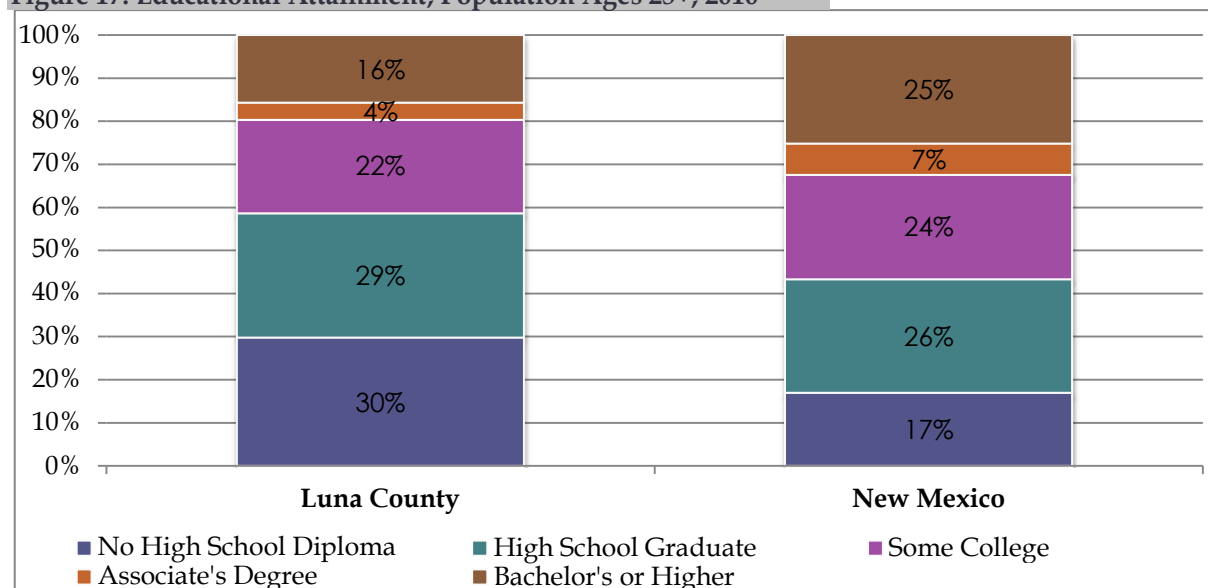
Figure 16. Inflow/Outflow of Luna County Workers



Source: US Census, Longitudinal Employment/Household Dynamics, 2010

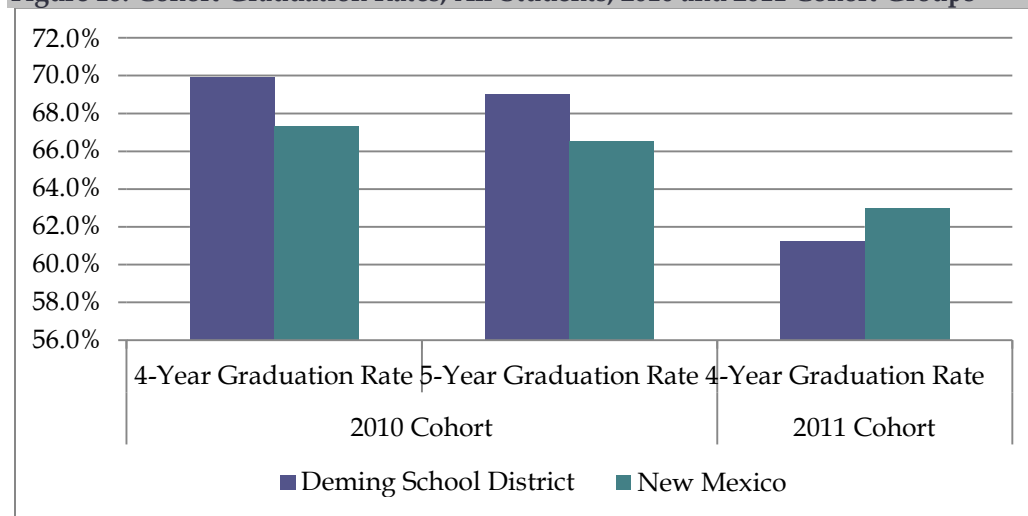
4. Education

The US Census documents educational attainment for the population aged 25 years and over in the American Community Survey. Estimates are reported based on multiple years of data applied to 2010 Census counts. In Luna County, 69.5 percent of the population 25 years and older has a high school diploma (or equivalent) or higher, and 13.5 percent has a bachelor's degree or higher. Figure 17 shows educational attainment for Luna County residents and for New Mexico.

Figure 17. Educational Attainment, Population Ages 25+, 2010

Source: U.S. Census, 2008-2010 American Community Survey 3-Year Estimates

The New Mexico Public Education Department reports cohort graduation rates for all high schools in New Mexico. As of 2009, students are tracked from when they enter as first-time freshmen to one year past their expected year of graduation. The state reports on-time graduation rates (four years) and five-year graduation rates for each cohort. The Deming School District compares favorably with the state, with higher graduation rates for the Class of 2010 and a somewhat lower four-year graduation rate for the Class of 2011. Five-year graduation rates are not yet available for 2011. Five year graduation rates can be lower than four-year graduation rates because of the way transfer students are counted.

Figure 18. Cohort Graduation Rates, All Students, 2010 and 2011 Cohort Groups

Source: New Mexico Public Education Department, 2012

5. Household and Per Capita Income

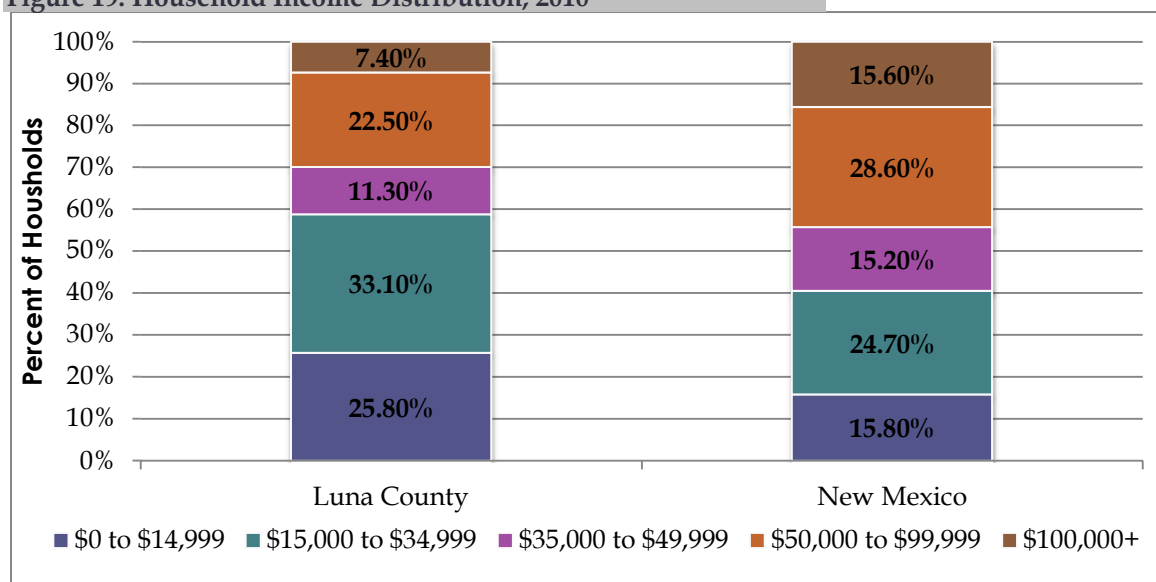
The US Census reports 2010 the median household income in Luna County as \$27,997, compared to \$43,820 for the State of New Mexico. In 2010, an estimated 30.7 percent of people in Luna County lived in households with incomes below the poverty level, compared to 19.8 percent of the state's population. The dollar value thresholds used to determine poverty level vary by household size and composition.

Table 19. Income and Benefits (In 2010 Inflation-adjusted Dollars)

	Luna County	New Mexico
	Percent	Percent
Less than \$10,000	19.20%	9.30%
\$10,000 to \$14,999	6.60%	6.50%
\$15,000 to \$24,999	18.20%	13.00%
\$25,000 to \$34,999	14.90%	11.70%
\$35,000 to \$49,999	11.30%	15.20%
\$50,000 to \$74,999	18.20%	17.80%
\$75,000 to \$99,999	4.30%	10.80%
\$100,000 to \$149,999	4.50%	10.10%
\$150,000 to \$199,999	0.90%	3.10%
\$200,000 or more	2.00%	2.40%
Median household income (dollars)	\$27,997	\$43,820

Sources: US Census, American Community Survey, 3-year and 5-year estimates;
Bureau of Economic Analysis, Per Capita Personal Income

Luna County residents on average have lower incomes than the state residents. Figure 19 shows the distribution of households by income in Luna County compared to the state. Not surprisingly, there is a relatively higher percentage of households in lower income categories and a lower percentage in higher income categories.

Figure 19. Household Income Distribution, 2010

Source: US Census, 2008-2010 American Community Survey 3-Year Estimates

Household incomes by household type for Luna County and the state as a whole are shown in Table 20. Family households include related people living together. Non-family households are individuals living alone or unrelated people living together. Female-headed family households, women living alone and men living alone have the lowest median incomes of the household types.

Table 20. Estimates of Median Income in the Past 12 Months, 2010¹

	New Mexico		Luna County	
	Total	Median income (dollars)	Total	Median income (dollars)
Households	756,112	\$43,820	9,204	\$27,997
Hispanic or Latino origin (of any race)	39.10%	\$36,392	50.40%	\$23,359
White alone, not Hispanic or Latino	50.60%	\$52,444	48.10%	\$33,333
HOUSEHOLD INCOME BY AGE OF HOUSEHOLDER				
15 to 24 years	5.60%	\$23,861	2.30%	\$22,639
25 to 44 years	32.50%	\$46,019	26.90%	\$30,301
45 to 64 years	40.20%	\$53,674	38.30%	\$29,043
65 years and over	21.70%	\$33,179	32.50%	\$26,177
FAMILIES				
Families	497,372	\$52,565	6,190	\$33,312
With own children under 18 years	45.20%	\$45,871	46.40%	\$23,495
With no own children under 18 years	54.80%	\$58,351	53.60%	\$39,688
Married-couple families	71.00%	\$64,734	69.80%	\$40,472
Female householder, no husband present	20.40%	\$26,676	21.30%	\$16,822
Male householder, no wife present	8.60%	\$37,526	8.90%	\$33,750
NONFAMILY HOUSEHOLDS				
Nonfamily households	258,740	\$28,046	3,014	\$14,414
Female householder	52.10%	\$25,223	53.70%	\$14,292
Living alone	44.40%	\$22,554	49.80%	\$12,939
Not living alone	7.60%	\$45,737	3.90%	\$30,521
Male householder	47.90%	\$31,243	46.30%	\$14,491
Living alone	38.10%	\$27,748	41.50%	\$14,253
Not living alone	9.80%	\$46,245	4.70%	\$18,125

Source: US Census Bureau, 2006-2010 American Community Survey 5-Year Estimates

¹ Note that income data are collected annually by the Census from a sample of the U.S. population. The sample information is applied to 2010 Census counts to estimate detailed social and economic characteristics of the population. The three data sources include one-year estimates for areas with large populations (65,000+), three-year estimates for areas with a population of 20,000 or more, and five-year estimates for all Census places. Three-year and five-year estimates are available for Luna County for sample data, and five-year estimates are available for smaller groups in the County and for Deming and Columbus. The sample data for the various years are averaged to derive estimates for 2010 – i.e. 2008-2010 for the three year estimates and 2006-2010 for the five year estimates. The three year estimates are more current; the five-year estimates provide more detail for small areas.

6. Gross Receipts

Gross receipts from Luna County businesses are shown in Table 21. Retail trade and manufacturing represent 48.1 percent of the gross receipts in Luna County. The largest industry sector in terms of sales is retail trade, followed by manufacturing. All other sectors represent 51.9 percent of gross receipts. Each of the other industry sectors totals less than ten percent of the county total. Total reported gross receipts in 2011 were nearly \$700,000,000.

Table 21. Gross Receipts for Luna County Businesses, 2011

Industry	Gross Receipts	Percent of Total
Agriculture, Forestry, Fishing and Hunting	\$ 1,864,981.96	0.3%
Mining and Oil and Gas Extraction	NA	NA
Utilities	28,121,494.88	4.0%
Construction	58,662,004.97	8.4%
Manufacturing	135,711,205.32	19.4%
Wholesale Trade	27,366,718.89	3.9%
Retail Trade	200,416,479.83	28.7%
Transportation and Warehousing	39,647,368.45	5.7%
Information and Cultural Industries	22,798,734.19	3.3%
Finance and Insurance	1,968,835.60	0.3%
Real Estate and Rental and Leasing	5,820,500.03	0.8%
Professional, Scientific and Technical Services	46,127,373.58	6.6%
Management of Companies and Enterprises	208,884.47	0.0%
Admin and Support, Waste Mgt and Remediation	3,350,467.96	0.5%
Educational Services	238,109.98	0.0%
Health Care and Social Assistance	54,402,442.08	7.8%
Arts, Entertainment and Recreation	1,734,657.52	0.2%
Accommodation and Food Services	30,984,446.71	4.4%
Other Services (except Public Admin)	35,384,299.76	5.1%
Public Administration	NA	NA
Unclassified Establishments	280,291.52	0.0%
Totals	\$698,704,301.00	100.0%

Source: New Mexico Department of Taxation and Revenue, 2012

7. Agriculture

The most recent published information from the agricultural census is for 2007. In 2007, there were 206 farms in Luna County, up from 171 in 2002. A total of 653,558 acres were in farms, down from 709,518 acres in 2002. The average farm size dropped from 4,149 acres to 3,173 acres, so while the number of farms increased, their average size decreased. Pasture accounts for over 92 percent of land in farms. The market value of products sold increased from \$47 million to \$49 million, with 63 percent of 2007 agricultural sales being crops and 37 percent being livestock.

The top crop items by acres farmed are vegetables harvested for sale, forage, cotton, peppers (primarily chile) and corn for silage.

Luna County's farm operations produce average net income of \$6,265 per farm. At the high end, 26 farms, or about 13 percent of farms in the county, have sales valued at \$500,000 or more. At the low end, 53 farms, or roughly 25 percent of all farms in the county, report sales of less than \$1,000.

B. Major Employers

The top employers in the County are:

- Deming Public Schools
- Homeland Security (Border Patrol Section)
- Border Foods Inc. (includes seasonal workers)
- Wal-Mart Supercenter
- Mimbres Memorial Hospital
- NM Department of Transportation (NMDOT)
- County of Luna
- City of Deming
- J & D Produce (includes seasonal workers)
- Solitaire Manufactured Homes
- Peppers Supermarket (includes gas station)
- Compass Components Mfg.
- Carzalia Valley Produce (includes seasonal workers)
- Billy the Kid Produce and farms (includes seasonal workers)

Mimbres Memorial Hospital & Nursing Home has 25 licensed acute care beds and 66 skilled nursing long-term care beds. With over 240 employees, the hospital has major economic impact, investing \$30 million in a typical year in the local economy. In 2006, for example, the hospital had a \$15.4 million payroll, invested \$4 million in capital improvements, paid \$2 million in property and sales taxes, provided \$11 million in uncompensated care through its charity and indigent services, purchased \$875,000 in local goods and services, and provided \$6,500 in contributions to local organizations.

Border Foods, located in Deming, is the world's largest green chile and Jalapeno pepper processor.

Compass Components, Inc. is a manufacturer of wiring harness assemblies for buses and other electrical components. Its 90,000-square-foot assembly plant is located in Deming.

Carzalia Valley Produce, based in Columbus, specializes in custom farming. It grows a variety of produce, and is known for its Carzalia sweet onions.

Two state and national award winning wineries, St. Clair Winery (the largest winery in NM) and Luna Rossa Winery form the nucleus of a potential wine region.

The Columbus stockyards, operated by the County, is a significant contributor to border trade.

The Southwest Regional Transit District (Corre Caminos) provides a number of jobs. Its employees are direct hires through Grant County.

C. Prior studies

Deming-Luna County Economic Development Corporation Strategic Plan, 2009. A strategic planning session conducted in 2009 included a SWOT analysis and identified major economic opportunities related to both the EDC as an organization and to the broader community. A number of recommendations in the plan are specific to Board and organizational development, but others describe initiatives that would improve the local economic climate. The SWOT analysis results and proposed economic development activities are incorporated into the recommendations of this chapter.

Deming MainStreet: Community Economic Assessment, 2008. The community assessment, completed by the Bureau of Business and Economic Research at the University of New Mexico for the Deming MainStreet Program, includes information and analysis related to Deming and the County as a whole, along with some observations about the region. It recommends attracting better-paying manufacturing jobs, attracting more retirees and tourists and leveraging MainStreet assets to help attract visitors and provide an important amenity for local residents.

D. Economic Development Organizations

Deming – Luna County Economic Development, Inc. A local non-profit economic development organization was formed in 1986. It is currently known as Deming – Luna County Economic Development, Inc. (DLC ED). DLC ED is very active and focuses on initiatives that will create, recruit, and sustain jobs in Luna County, thereby creating additional tax revenues for the communities and improving the quality of life in Luna County. This organization carries out the implementation of various economic development programs, including, but not limited to, a business expansion and retention program, a marketing program, a business plan and various training programs. The DLC ED Director is the point of contact for the NM Economic Development Department. The County and the City of Deming refer prospective business investors to DLC ED or directly involve the Director of the DLC ED in discussions with prospective businesses. Much of the work of recruiting businesses and growing new ones falls to Deming – Luna County Economic Development, Inc. (Luna County has a full time Economic Development Officer on staff who is also the Executive Director of Deming – Luna County Economic Development.)

Luna County was recently designated a Regional NM Economic Development Certified Community (three-year designation) which includes the City of Deming and all of Luna County. DLC ED will administer the Regional Certified Communities program for Luna County and the City of Deming.

New Mexico Partnership is a private, non-profit organization formed as the official business recruiting arm for the state. Its purpose is to attract business and create jobs through recruiting, while the New Mexico Economic Development Department is responsible for assisting existing businesses and communities. The Partnership is state-funded, and also solicits private sponsorships for some of its events. It provides statistics, coordinates site selection trips, identifies relevant incentives, facilitates permitting, and facilitates meetings and public relations for companies considering relocating or expanding to New Mexico. The Partnership supplements the recruiting efforts of local economic development organizations. Its target sectors are Value Added Agriculture, Aerospace and Defense, Manufacturing, Technology Commercialization, Back Office and Technical Support,

Energy and Natural Resources, Logistics, Distribution and Transportation, and Digital Media.

Southwest New Mexico Council of Governments

(SWNMCOG) is a regional planning commission whose members are county and municipal entities, school districts, soil and water conservation groups and other special districts/groups located in Catron, Grant, Hidalgo, and Luna counties. Its purpose is to help its members improve the quality life in southwestern New Mexico by securing funding and partnerships for community and economic development, transportation, housing, and other infrastructure needs. Services include assistance and participation in comprehensive planning, preparation of Infrastructure Capital Improvement Plans, grant writing and administration, organizing regional meetings, legislative outreach and education, and other related services.

Southwestern Regional Housing and Community

Development Corporation (SRH&CDC) is a nonprofit organization whose purpose is to provide safe, affordable housing and community development for low to moderate income residents of New Mexico. The organization seeks community development opportunities that contribute to the growth and health of Luna County, as well as the other counties in which it operates. The organization's housing efforts are described in the housing chapter of this Comprehensive Plan. SRH&CDC serves the entire state with emphasis in Luna, Hidalgo, Grant, Sierra and Catron Counties. SRH&CDC was awarded grant funding from USDA Rural Development and matching funds from Luna County, the City of Deming, DLC ED, and Grant County to establish a regional revolving loan fund for entrepreneurs starting a businesses and small businesses expanding. Applicants must qualify for the loans.

Deming-Luna County MainStreet Program was established to create an economically viable business environment in downtown Deming through economic development, revitalization of the traditional commercial district, restoration of architecture from the 19th and 20th centuries, development of public spaces, and restructuring traffic and parking to address issues in downtown. Deming MainStreet is part of the New Mexico MainStreet program.

Deming-Luna County Chamber of Commerce was formed to establish a network of local businesses to build the community into an area which residents, visitors, and investors are

attracted. It maintains the Visitor's Center for Deming. The Chamber of Commerce provides information about the county, sponsors and promotes events, and organizes monthly networking events at local businesses.

Southern Luna County Economic Development Corporation (SLCEDC) is a new organization that was formed to concentrate efforts for economic growth in the southern most area of Luna County including the Village of Columbus.

E. Other Local and Regional Economic Development Resources

Mimbres Valley Learning Center (MVLC) and Special Events Center provides a facility for special events and post-secondary education and customized training programs for local and regional businesses. The programming of the Learning Center is a collaboration between Deming/Luna County and nearby universities. The Special Event component provides conference rooms, exhibit spaces, a large main hall and a kitchen for community, regional, state, and other special events.

New Mexico Department of Workforce Solutions, through its local Workforce Connections office, provides technical assistance, labor markets analysis, job postings, testing and employee screening. It offers services to both employers and job seekers.

Small Business Development Center (SBDC), located in Silver City, offers assistance to individuals and existing or potential small businesses. SBDC has a representative who has office space at the MVLC two days a week. Small Business Development Centers, a program administered by the federal Small Business Administration, are located in communities throughout the state and are partnerships primarily between government and local universities. These offices provide information and guidance in financial, marketing, production, organization, engineering and technical problems and other aspects of establishing and growing a small business.

Businesses in Luna County have access to a broad range of other support and information that is available from agencies and organizations that serve the region and the state. The DLC ED maintains a complete list of these resources and works with businesses to help them access the appropriate resources.

NMSU Community Resource and Economic Development Program, through the NMSU Cooperative Extension Service, is set up to promote and support the economic and community development of New Mexico's diverse communities. This program provides research-based knowledge and information, professional development training and education. Resources include general community economic development as well as a variety of specific resources for agricultural businesses.

F. Regional Initiatives

Southwest New Mexico Economic Development Partnership. Luna County is part of the Southwest New Mexico Economic Development Partnership (SWNMEDP). It is being developed to market Luna County along with Catron, Grant and Hidalgo counties and their municipalities as a region through a USDA Rural Development initiative called Stronger Economies Together (SET). SET focuses on building the economies of rural America through regional partnerships. USDA provides training, data and analysis, and technical assistance and facilitates peer-to-peer networking and partnerships among local, federal, state and regional agencies. An MOU was established between the four counties for the SWNM Economic Development, and the SWNM Energy and Green Jobs Task Force, and all the communities to work together for economic prosperity and quality of life.

Southwest New Mexico Energy and Green Jobs Task Force is a regional economic development initiative in the four-county area. This collaboration among the Counties and municipalities in southwest New Mexico promotes renewable energy, energy efficiency and jobs in the renewable energy sector.

G. Industrial Parks

1. Deming Industrial Park

The 800-acre Deming Industrial Park is an ideal site for manufacturing and warehousing. Current tenants range from food processing and manufacturing to warehousing and distribution. A sample of current tenants includes Border Foods, Joseph's Lite Cookies, Solitaire Manufactured Homes, Schwans (food distribution), Compass Components Mfg., Deming Coco Cola Bottling, United Parcel Service and the US

Border Patrol. All utilities are available, extended to the property line of each lot. The Deming Industrial Park is suitable for businesses that require small to medium tracts of vacant land. The City has established a streamlined process and cost structure designed to reduce costs to the user.

2. Peru Mill Industrial Park

Peru Mill Industrial Park is a 512-acre industrial park located North of Interstate Highway 10. The site's zoning allows for the construction of a wide range of manufacturing and industrial applications, including businesses that need large tracts of land. This industrial park has room for expansion.

Rail service is available to the Industrial Park. The City owns approximately 1,400 feet of rail spur on 19.9 acres of land (Section 28, Township 23 South, Range 9 West) immediately West of the Central Cellular Company site. The site can be served by both the Union Pacific Railroad and BNSF. The site has easy access to Interstate 10. Water, gas and electric utilities are available.

Currently, the proposed Industrial Park is divided into two industry types, rail and non-rail served. Rail-served properties are generally located West of Peru Mill Road and are large plats of property easily served by rail and truck traffic. Properties not served by rail are generally located East of Peru Mill Road.

Industry types that have been identified as being likely candidates for the proposed park include, but are not limited to:

- Cross-dock/transload facilities
- Local or specialized warehousing
- Logistic centers
- Food processing
- Solar energy generation
- Renewable energy projects
- Manufacturing

The Luna Energy Facility, the PNM Switching Station, the communications tower and some small operations, and the communication tower are located adjacent to Peru Mill Industrial Park.

3. Columbus Industrial Park

Columbus Industrial Park is located on the border and has land available for lease or build-to-suit. The industrial park provides warehouse space and stockyards for cattle – 160 acres acquired from Luna County can be made available for additional industrial or warehousing activities. The park is served by a small sewage treatment system that serves other residential and commercial activities in the vicinity.

H. Port of Columbus

Bordering Palomas, Chihuahua, and located within the historic Village of Columbus, New Mexico, the Columbus port of entry is approximately 30 miles south of Deming.

The only 24-hour port of entry into New Mexico, the Columbus Port is open 24 hours a day, 7 days a week. The Columbus port is New Mexico's full service port of entry. Bustling with activity and with many tourists and locals crossing daily, this recently remodeled port of entry is a well-situated choice for travelers.

Available Services at the Columbus Port of Entry:

- Pedestrian Traffic
- Mexican Immigration Services
- US Immigration Services
- Temporary Vehicle Export Permits
- Non-Commercial Traffic
- Commercial Traffic
- Livestock
- Customs Brokers
- Open 24 hrs

Livestock Imports and Exports

The Columbus port of entry hosts large and efficient livestock facilities that cater to livestock producers of northwestern Mexico. Cattle-feeding facilities in the US often purchase "feeder" cattle from Mexico to add to their herds, while US ranchers often sell their breeding stock into Mexico. The Columbus Stockyards only import livestock but are set up to export livestock. Luna County is working to establish the Columbus Stockyards as an export facility. The Columbus Stockyards import approximately 75,000 or 25 percent of all cattle imported each year from Mexico into New Mexico.

New Mexico imports approximately one-third of all cattle from Mexico into the United States at New Mexico ports.

Union Ganadera Regional de Chihuahua operates the Mexican facilities at Columbus/Palomas. The union is a cooperative composed of livestock producers throughout Chihuahua and is well known throughout Mexico for its progressive marketing and processing initiatives.

Livestock imports involve several Mexican and US inspection agencies that are available at Columbus/Palomas including:

- Customs and Border Protection
- Aduana Mexico
- US Department of Agriculture
- US Food and Drug Administration
- Mexican Secretaria de Agricultura, Livestock, Rural Development, and Fish (SAGARPA)
- New Mexico Livestock Board

I. Tourism

Tourism within Luna County. Luna County has a wealth of natural and cultural resources that are the foundation for tourism. Tourist destinations include outdoor recreation opportunities, a gateway to Mexico, and local historical sites. Mild winters attract full-time RV campers who are commonly referred to as “snowbirds.”

The **Florida and Little Florida Mountains** are a popular outdoor recreation venue for both local residents and visitors. **Rockhound State Park** provides public access to these areas. The park consists of two areas. The main park (329 acres) includes a 30-site campground, hiking trails and a visitor center on the west slopes of the Little Florida Mountains. The Spring Canyon Recreation Area (576 acres) is a day-use area located across the valley in the foothills of the Florida Mountains and includes picnic sites and hiking trails. Rockhound State Park averages about 64,000 visitors a year. Spring is the peak season, which coincides with pleasant temperatures, spring break vacations, and the local “Rockhound Roundup” event.

Deming Center for the Arts. The Deming Center for the Arts is located in an historic building in downtown Deming. It is the home of the Deming Arts Council which exists to promote and support the arts in Deming. The Deming Center for the Arts presents a new exhibit each month, ranging from work

by students of the Deming schools to works done by well known area artists. The Center for the Arts and the Deming Arts Council are run by volunteers.

Deming Luna Mimbres Museum. The Deming Luna Mimbres Museum, one of New Mexico's most interesting museums, is located in the 1916 National Guard Armory across from the Custom House and the Archives, all of which are governed by a non-profit corporation, the Luna County Historical Society. The goal of the museum is to depict the way people have lived in the area since the 1880s and to showcase Mimbres artifacts. The buildings and exhibits are from private donations, and the museum is run by volunteers.

The Village of Columbus has a rich border history. Visitors can view exhibits about Pancho Villa's 1916 raid and General Pershing's subsequent military campaign at two museums, one which was converted from the turn of the century railroad station that served the border region. Pancho Villa State Park receives its highest visitation during the fall and winter months (from October to March). Based on daily camping lists and employee observations, senior citizen campers contribute the largest percentage of the park's revenue. The number of visitors to Pancho Villa State Park has declined over the past five years, but it still attracts more than 20,000 visitors annually.

Table 22. Pancho Villa State Park Visitorship, 2006-2011

Year	Visitors	% Change
2006	73,380	
2007	56,069	-24%
2008	58,875	5%
2009	30,494	-48%
2010	26,124	-14%
2011	21,124	-19%

Source: Village of Columbus Comprehensive Plan Update, 2012

Columbus/Palomas is also the bi-national gateway for the **Mimbres-Paquime Connection Loop Tour**, a fascinating tourist route that showcases the shared natural and cultural resources of southwestern New Mexico and northwestern

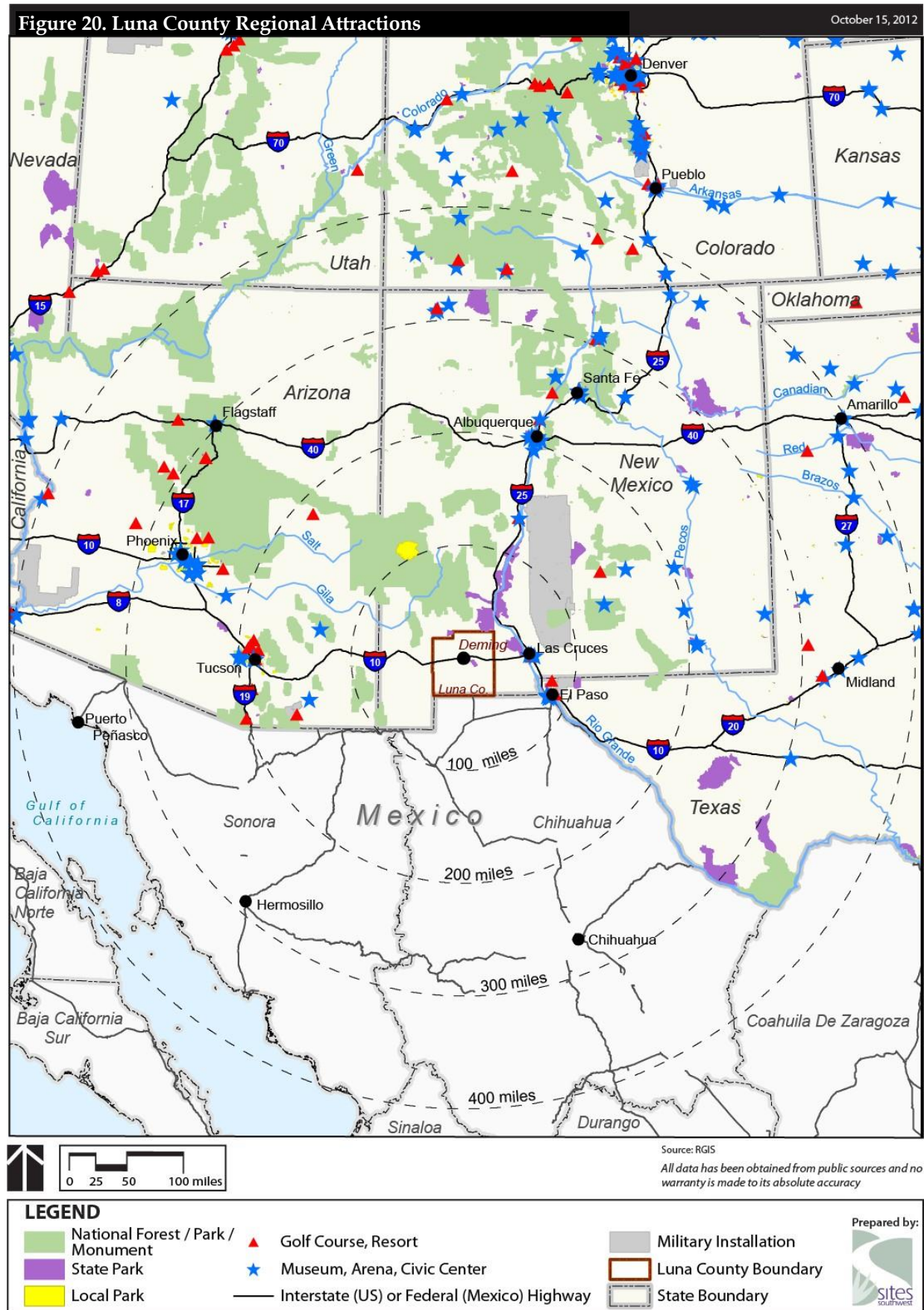
Chihuahua. The loop tour extends throughout the region surrounding Luna County.

Regional Attractions. In addition to the destinations within Luna County, Luna County is centrally located to some of the southwest's most well known natural attractions as well as major urban areas. Regional attractions within a short day's drive include outdoor and urban attractions in New Mexico, Texas and Arizona. Cities within easy driving distance include Silver City, Las Cruces, El Paso, Albuquerque, Phoenix, and Tucson. Within the nearby region are outstanding outdoor recreation opportunities: the Gila National Forest, Lincoln National Forest, Organ Mountains, City of Rocks State Park, White Sands National Monument, and Carlsbad Caverns in New Mexico; the Coronado National Forest and Saguaro National Park in Arizona; and the Guadalupe Mountains in Texas.

Travel to Mexico. Palomas has been a popular destination for tourists shopping for Mexican arts and crafts products or seeking dental and optical services and pharmacies. Visitors to Palomas can drive across the border or park for free in Columbus and walk to Palomas.

The **Columbus Port of Entry** is an entry point for tourists travelling further into Mexico, such as to Ascension, Janos, Chihuahua City, or Casas Grandes. All necessary Mexican agencies are located at the Palomas port so that tourists can obtain Mexican tourists visas, temporary vehicle permits, and other required travel documents in Palomas.

Travel to Mexico and from Mexico into Luna County is an important opportunity for economic prosperity on both sides of the border.



J. Renewable Energy Developments

Luna County has emerged as a hotspot in the production of renewable energy, with commercial power already being generated by wind and solar facilities.

Macho Springs Wind Energy Farm, developed by Element Power, began producing power in late 2011. Located in the northeast corner of Luna County, it consists of 28 Vestas V100-1.8 megawatt (MW) wind turbines that are installed over approximately 2,000 acres of private ranchland. The wind farm produces 50.4 megawatts of wind energy and generates enough electricity to power approximately 14,000 homes. The energy output from the project is contracted to Tucson Electric Power through a long-term power purchase agreement.

Element Power is also developing a 50-MW photovoltaic (PV) project adjacent to the Macho Springs Wind Farm site. The Macho Springs Solar Farm will be a 50-megawatt photovoltaic (PV) installation. As the largest solar project in the State of New Mexico, it will provide clean and cost competitive solar energy to El Paso Electric and its customers.

Public Service Company of New Mexico's (PNM's) five (5) megawatt solar field, known as PNM's Deming Solar Field is located on 50 acres 8 miles south of Deming and can generate enough electricity to power 1,600 average-sized homes in the course of a year. The Deming Solar Field began generating power for local PNM customers in the summer of 2011. PNM has plans to add another 5 megawatts to the Deming Solar Field in 2013. With the additional 5 megawatts, PNM estimates the Deming Solar Field will offset about 20 million pounds of carbon annually.

Sapphire Energy, a company that is pioneering an entirely new industry to address our nation's energy and economic crises, is putting Luna County on the map as a leader in renewable energy as they move forward with their new technology. Sapphire Energy has proven its technology for producing fuel oil from algae. Its 300-acre algae farm near Columbus is growing algae for their fuel oil. Oil extracted from the fast-growing algae can be transported and refined with the same equipment used for petroleum products. Sapphire Energy's algae farm utilizes and recycles the area's plentiful brackish water resources and the algae growth

consumes carbon, helping to offset the combustion footprint. The protein-rich product can be utilized as feed for cattle or fish.

Preferred Produce, a bio-system operation that cares about our families and our environment, was established in Luna County in 2011. Preferred Produce's team integrates "best in class" organic growing techniques and facility management practices, and has designed and constructed a controlled-environment greenhouse production facility that provides the optimal foundation from which to create a sustainable and highly productive business model producing locally grown organic vegetables. These organic vegetables are produced on a year-round basis and are delivered within 48 hours of harvest to local markets in the Southwest. The Preferred Produce team is constructing multiple state-of-the-art controlled-environment greenhouses. These bio-systems (greenhouses) will produce and deliver to consumers direct and through partnerships with others, certified organic products that are free of chemical fertilizers and pesticides and that have been picked ripe for optimal flavor and nutritional value.

K. Economic Development Issues and Opportunities

The following economic development issues were identified through public meetings and interviews.

1. There is a need to develop general work skills in the county's labor force. Jobs are available, and there is an opportunity to reduce the county's unemployment rate through developing these skills.
2. Both existing businesses and new businesses moving into the county need workers with the appropriate skills. Appropriate workforce training can help better match workforce skills to the needs of local businesses.
3. A wide range of skilled workers is needed. Examples provided through public input range from physicians to skilled trades people like plumbers and electricians. Being able to hire locally would enrich the local economy.
4. New economic development should be appropriate to the county's resources and recognize the need to protect the county's natural environment. Industrial

parks in suitable locations and with appropriate infrastructure are needed to accommodate large-scale alternative energy projects and other large-scale industry.

5. High speed internet, which is important for businesses and for people who work from home, should be improved through local and regional broadband initiatives.
6. Ongoing improvements in K-12 and post-secondary education are important for Luna County's economy. Post-secondary education needs include college classes, technical training and community education.
7. The Mimbres Valley Learning Center is a valuable resource for meeting adult education and workforce training needs. The Learning Center should address the general education, specific workforce training and community continuing education needs of Luna County.
8. Existing businesses in the area generally meet residents' day-to-day needs. There are additional opportunities for businesses and individuals that can provide specialized services locally. This includes both business-to-business services and services to households.
9. A variety of activities, including businesses such as restaurants and entertainment, are desired in the community. Not only would such businesses add amenities for current residents; they are seen as an important means to attract and retain young families.
10. Residents of Luna County want a diverse, resilient local economy. The county's economic development efforts can help diversify the types of industry in the county, increase private investment in the county and increase opportunities for private sector jobs.

L. Future Opportunities

The DLCEDC strategic plan identified opportunities that the County should focus on. The top three opportunities are small business development, tourism and housing. Other opportunities include renewable energy, infrastructure improvements, attracting retirees, and education.

Renewable Energy. A designated corridor that accommodates proposed electric transmission projects will support renewable energy projects in the County while limiting the impact of large-scale power generation facilities. Proposed transmission projects include:

- The Southline Transmission Project, which will connect and transmit electricity across southern New Mexico and southern Arizona.
- The SunZia Southwest Transmission Project, which will include two extra-high-voltage electric transmission lines and substations, primarily for transmission of renewable energy from Arizona and New Mexico to customers and markets across the southwestern US.

The corridor will create opportunities for transmission lines, which in turn create opportunities for renewable energy development in the County. The corridor will also consolidate above ground facilities to reduce impacts on the County's visual resources.

As part of the County's commitment to the development of renewable energy, The County should create initiatives that support installations for residential use. Such initiatives provide an opportunity for small-scale projects. Barriers to small scale projects like the PACE program in Santa Fe include anti-donation provisions of state statutes and conflicts between financing entities regarding priority in the event of default.

Border Trade. Luna County's location provides a competitive advantage for trade between the United States and Mexico. Opportunities to capitalize on this advantage include promoting the port of entry, Columbus Stockyards and the benefits of Luna County's designation as a United States HUBZone area.

United States designated HUBZone Area. Luna County is a designated United States HUBZone area. A business can expand their client base by becoming a certified HUBZone business. The HUBZone program is administered by the United States Small Business Administration office and provides HUBZone certification to local small businesses. This contracting assistance provided through HUBZone certification in historically underutilized business areas (HUBZones) is to promote job growth, capital investment and economic development in certified HUBZone areas. Benefits for HUBZone-certified companies include competitive and sole source contracting, a 10 percent price evaluation preference in full and open contract competitions, as well as subcontracting opportunities.

Intergovernmental and regional initiatives. Participate in regional economic development partnerships.

M. Economic Development Goals and Strategies

Economic Development Goal 1: Improve educational opportunities for Luna County residents of all ages.

- Strategy a. Broaden the adult (community) education available at the Mimbres Valley Learning Center to provide basic workforce training and as well as college classes.
- Strategy b. Create new and strengthen existing partnerships with New Mexico Workforce Solutions, WNMU, DACC, NMSU, other education providers and private businesses to offer the classes needed in the County.

Economic Development Goal 2: Attract and develop a capable workforce with the skills needed for current and future jobs.

- Strategy a. Continue to support local Youth Leadership Programs that introduce high school students to business and pair business mentors with area youth.
- Strategy b. Establish customized workforce training appropriate to existing businesses and desired industries in Luna County.

Economic Goal 3: Enhance the County's infrastructure and prepare real estate options to support small business startups, business expansion and attraction of target industries.

- Strategy a. Conduct market and target industry assessments.
- Strategy b. Establish a commercial kitchen for small business development. The commercial kitchen would be available for rent to small food related businesses.
- Strategy c. Support the establishment of a local Farmers Market for selling local produce, art and crafts.
- Strategy d. Work with New Mexico Department of Information Technology (NM DoIT) to improve broadband service County-wide.

Economic Development Goal 4: Support and strengthen the County's agricultural economy.

- Strategy a. Develop and market a "buy local" campaign.
- Strategy b. Encourage local food production.
- Strategy c. Work with local agriculture groups and municipalities to establish farmer's markets, where local farmers can sell their products.
- Strategy d. Work with local school districts to provide food for school breakfasts and lunches.
- Strategy e. Provide information on value added agriculture to farmers and ranchers.
- Strategy f. Support efforts to expand the agricultural infrastructure to allow farmers and ranchers to add value to their products.
- Strategy g. Develop a marketing and branding program for local agricultural products.
- Strategy h. Take advantage of agricultural economics and agricultural business resources available at NMSU, including extension specialists, to improve the County's agricultural economy.

Economic Development Goal 5: Support the development of alternative/renewable energy and its required infrastructure.

- Strategy a. Establish programs and incentives for renewable energy to homeowners and businesses in Luna County.
- Strategy b. Provide information about renewable energy options appropriate for residential and commercial use.
- Strategy c. Look for opportunities to utilize alternative/renewable energy in County facilities.
- Strategy d. Identify appropriate locations for large-scale renewable energy development.

Economic Development Goal 6: Support energy efficient building practices in Luna County, including both new construction and rehabilitation.

- Strategy a. Develop a County energy efficiency policy for County buildings.
- Strategy b. Provide incentives for private investment in energy upgrades.

Economic Development Goal 7: Develop international trade.

- Strategy a. Take better advantage of the only 24-hour port of entry in New Mexico and work with the appropriate state and Federal agencies to ensure that the Columbus port remains open.
- Strategy b. Work closely with the Federal and state agencies and programs to promote international trade through Luna County.
- Strategy c. Develop a Foreign Trade Zone in Luna County.
- Strategy d. Complete improvements to establish the Columbus Stockyards as an export facility.
- Strategy e. Attract business for whom a Spanish-speaking population and proximity to Mexico would be advantages.

Economic Development Goal 8: Improve quality of life in Luna County to attract families, specialized workforce and target industries.

- Strategy a. Establish outdoor recreation amenities such as pedestrian, equestrian and bike trails.
- Strategy b. Expand hours of operation of existing public amenities, such as the swimming pool and library.
- Strategy c. Promote existing outdoor recreation.
- Strategy d. Ensure that County development regulations and enforcement protect the County's appearance.

Economic Development Goal 9: Develop a Luna County marketing plan.

- Strategy a. Develop a Luna County marketing plan to market the county for tourism, a place to live and quality of life (small town, low taxes, low cost of living, recreation, amenities, proximity to location of interest, climate, natural resources such as water quality). Showcase economic opportunities in Luna County. Market the following assets:
 - historic downtown and other history and culture,

- great location for retirees and internet businesses,
- existing infrastructure (industrial parks, rail, interstate, airport etc.),
- regional economic opportunities (low cost land and labor, proximity to major transportation hubs and border),
- local agriculture and value-added products,
- renewable energy projects/opportunities.

Strategy b. Develop a brand for Luna County.

Strategy c. Market existing businesses in Luna County.

Economic Development Goal 10: Establish a stronger regional economy.

Strategy a. Participate in the Stronger Economies Together Program, NM Energy and Green Jobs Task Force, Southwest Council of Governments and other regional economic development partners.

Strategy b. Work with regional economic development partners to create a regional workforce for identified target industries.

Strategy c. Work with regional economic development partners to create a regional brand.

Strategy d. Support regional collaboration between economic development partners.

Economic Development Goal 11: Support entrepreneurs and small business development .

Strategy a. Retain and support existing businesses and industries.

Strategy b. Partner with Deming-Luna County Economic Development to prepare and implement a Business Retention and Expansion Plan (BREP).

Chapter 7: Community Services and Facilities

This section provides a description of existing community services either provided or supported financially by Luna County, current issues and future goals. It is important to note that other governmental entities, organizations, individuals, groups and associations also play a role in providing many of the community services and facilities discussed here.

A. Background

Community services are those are financially supported by the public, at least in part, and administered for the benefit of the entire county. Community services contribute to the quality of life for residents by providing safety and protection, recreation and leisure, meeting places, social services, and educational and cultural opportunities. It is important to note that this chapter does not include physical public infrastructure, such as roads, utilities and water/wastewater, which are addressed in other chapters.

The existing and future service needs detailed in this chapter were defined through interviews with public officials and County staff, as well as input collected during community meetings.

B. Existing Conditions

1. Poverty Rate

Luna County is considered the second poorest county in New Mexico – second only to McKinley County – with more than 30 percent of its residents living below the poverty rate (BBER 2010). Of those residents, more than half were ages 18 and younger while another 20 percent were ages 65 and older.

Table 23. Percentage of Families and People Whose Income in Past 12 Months is below the Poverty Level

All families	26.20%	+/-3.9
With related children under 18 years	44.70%	+/-6.1
With related children under 5 years only	28.30%	+/-14.8
Married couple families	15.80%	+/-4.1
With related children under 18 years	28.90%	+/-7.7
With related children under 5 years only	5.70%	+/-7.3
Families with female householder, no husband present	57.40%	+/-8.3
With related children under 18 years	76.70%	+/-7.7
With related children under 5 years only	74.50%	+/-24.9
All people	32.80%	+/-3.6
Under 18 years	50.20%	+/-6.6
18 years and over	26.20%	+/-3.0
18 to 64 years	28.20%	+/-3.5
65 years and over	20.30%	+/-4.3

Source: American Community Survey 2006-2010

Some 26 percent of the 6,190 families in Luna County were living below the poverty level. Most burdened were those headed by single mothers, which constituted more than 57 percent of those impoverished families.

2. Sources of Income

Of the 9,204 households in Luna County (these consist of one or more related or unrelated persons), some 63 percent received income from earnings. Median household income was \$27,997. Another 43 percent received social security payments (average \$14,000 annually) and 24 percent received retirement income (average of \$20,000 annually). Approximately five percent got Supplemental Security Income (SSI) payments (average of \$6,803 annually), 2.7 percent cash public assistance (average \$3,538 annually) and 15 percent received Food Stamps (SNAP) benefits within the most recent 12 months of data collection.

C. Existing Community Services and Facilities

1. Social and Health Services

Social and Health Services

The County faces a number of issues that tend to accompany high poverty rates and a location near the border with Mexico. The following issues were identified in the 2010 Community Health Improvement Plan by the Luna County Health Council.

- Luna County has one of the highest teen pregnancy rates in the state.
- An estimated 24 percent of residents have no health insurance. Of those who do, nearly 44 percent have private coverage and 47 percent public coverage (ACS 2008-2010). This limits the provider network and results in failure to seek medical care until a minor treatable illness becomes a major medical emergency.
- Some 9.6 to 13 percent of adults in the county have diabetes. The average medical cost to treat a person with diabetes in New Mexico is more than \$13,000 per year.
- The county has been declared a Health Professional Shortage Area, Medically Underserved Area as well as a Health Status Disparity Area by the Center for Disease Control. (Luna Health Council 2010).
- Domestic and dating violence are prevalent, as is substance abuse and untreated chronic illnesses.
- Only 69.5 percent of the population ages 25 and older has graduated from high school compared with 82.7 percent statewide.

The County, however, has taken steps to fund or contribute funding to a number of important community services. The services mentioned below are those that the County either delivers or contributes to financially.

Health Care Services

The Luna County Health Council is a community-based council that meets monthly to develop programs to improve the health and well-being of county residents. Its 25 members are appointed by the Luna County Commissioners and represent physical and behavioral health care, social services, ministerial alliance, local government, consumers, youth representatives and education providers. It acts as an advisory committee to the Board of County Commissioners on health

and wellness issues. Four Community Action Teams (CATs) from the group also meet monthly to work on identified priorities. The issues it addresses are embedded in a community close to the Mexican border that comprises a mix of cultures: a bilingual society based on farming and ranching, a population whose employment fluctuates with the harvest season, and a culture in which girls tend to marry and become mothers at an early age. Added to this is the culture of a large population of retirees from other parts of the country who reside in the area, particularly during winter months. The council selected two priorities to focus on, teen pregnancy and diabetes, because they contribute to other disparities in the county.

- **Teen Pregnancy-** The younger the mother, the less likely she is to receive adequate prenatal care. Nearly seven in ten Latina teen mothers (69%) drop out of high school. Babies born to unwed teen mothers have increased risk of behavioral health issues that could lead to substance abuse. Children of teen parents are more likely to live in poverty and start school at a disadvantage. Statistically they are likely to become teen parents themselves or spend time in prison. Teen parenthood creates a pattern of generational poverty (Luna Health Council 2010). To address this, the Council is implementing a multi-year grant to provide a Teen Outreach Program at all Deming Public Schools. The TOPs program combines guided activities plus community service learning to promote positive youth development. The Health Council also operates a Teen Pregnancy Prevention Community Action Team to develop plans that educate parents, youth, and community members about the consequences of teen pregnancy in the region.
- **Diabetes** – This disorder can contribute to a high number of health problems such as heart disease, stroke, high blood pressure, blindness, amputations, and poor oral health. Poorly controlled diabetes in pregnancy can cause major birth defects, spontaneous abortions, and excessively large babies. The Council’s Diabetes Community Action Team (DCAT) is working to make the most of available services, resources and labor. It is also planning to develop a “home grown” educator in the area to use the limited resources available and obtain additional funds available for certified educators. The county Cooperative Extension Office is also running a Keep Moving, Keep Healthy Program as well as a “Kitchen Creations” diabetes cooking class.

Healthy Kids Luna County – Luna County is one of ten New Mexico Counties selected to participate in a five-year federal grant to address childhood and youth obesity and related chronic disease. Its overall goal is to empower Luna County children, youth and families to change eating and physical activity behaviors to those that promote health and prevent obesity. According to the NM Department of Health, 15 percent of kindergartners are obese, a percentage that rises to 22 percent by third grade. Some 70 percent of obese children have hypertension, high cholesterol or abnormal glucose levels; 30 percent had two or more of these conditions. The 2012 Action Plan takes a 6-pronged approach:

1. Community Planning: Creation of a stakeholders steering council that meets monthly and provides strategic direction, coordinates planning with existing programs, implements initiatives, engages the larger community and builds long-term sustainability for the program. This includes a public education campaign, a workshop, and assessment of available local health foods.
2. Educational System: Increase the number of fresh fruits and vegetables in the cafeteria, encourage schools to build edible gardens, increase cooking programs in the classroom, remove sweetened drinks from the cafeteria and vending machines, and encourage parents to bring healthy snacks. It also calls for a school demonstration garden to be established at Deming High School, initiating active transportation – walking and biking – to school events and opening outdoor school space to community use during non-school time.
3. Childcare Environments: Assist childcare facilities to create environments that promote and model healthy eating, increase physical activity and decrease screen time.
4. Built Environment: This prong seeks to expand opportunities for active living through changes in policy and the built environment. It calls for creating safe bicycle and pedestrian routes to such youth destinations as schools, STARMAX, the library and other community facilities, parks and sports fields. A sidewalk audit in Deming, and later Columbus will lead to designation of four walking paths with attractive signage and vegetation. A similar approach would designate a unified bike path plan with signage and safe zones. Deciding on the official truck bypass route is key to this.
5. Food Systems: A counterpart to #2, this prong establishes a Food Policy Council, a technical group

composed of mostly small growers, farmers, ranchers, distributors and institutions to figure out how to get locally grown food products to institutions, groceries and restaurants at fair prices for all. Other actions would focus on establishing a year-round Farmers' Market in Deming and Columbus, a garden at every public and private school, and more container, home and community gardens. Initiatives also seek to establish commercial facilities such as cold storage and long-term freezer facilities, slaughter house facilities, and a commercial kitchen.

6. **Public Relations Campaign:** This prong would focus on building a youth-led effort to promote healthy eating, active living and a tobacco-free environment.

Hospital Services

Mimbres Memorial Hospital

The Mimbres Memorial Hospital is located at 900 West Ash Street in Deming, and is designated as a Critical Access Hospital. The facility has 25 acute care beds and a 66-bed dually certified skilled nursing/long term care unit, and is approved by the Joint Commission on Health.

Mimbres Memorial Hospital has more than 240 staff, including 33 active and courtesy physicians. The hospital provides patient care and clinical services for family medicine, general surgery, ophthalmology, cardiology, obstetrics, pediatrics, hematology/oncology, orthopedics and podiatry, radiology, emergency care, and outpatient rehabilitation. The hospital's secure Maternal/Child Unit has five postpartum beds and two labor and delivery rooms where families can experience childbirth in an environment that encourages total family participation according to the new mother's wishes. Other Services at Mimbres Memorial Hospital include: case management, childbirth classes, geriatric services, health screenings, medical surgical intensive care unit, nutrition programs, patient representative services, and a volunteer services department.

Being in a low income county, the hospital provides a lot of uncompensated care. The hospital's designations as a critical access, rural hospital, and sole community provider – it is 50 miles from another hospital – has helped it maintain financial viability as these designations raise the reimbursement rate. Receiving its full share of sole community provider funds from the County is important to the hospital's survival. Estimates are that the hospital



Mimbres Memorial Hospital

contributes more than \$30 million to the county's economy through local purchases and taxes.

Children and Teenage Services

- **Childcare before and after school** is always an issue for working parents. The County funds after-school programs
- **Healthy Start Program** – Luna County is in the second four years of this federally-funded program which offers peri-natal education and referrals and depression screening. It tracks women from conception until two years after the birth of their child. Infant mortality was barely measureable in 2010 compared with the previous rate of 7 out of 100 babies.
- The **Healing House** in Deming is a domestic violence shelter funded by grants and currently under the administration of Luna County. It has shelter for about a dozen occupants and offers individual counseling; support groups; advocacy, life, and social skills; and help in petitioning for domestic violence protection orders. (Com Rheganne Vaughn 2012). The programs offer a continuum of services through different agencies, such as truancy programs, community services, jail diversion (electronic monitoring). Through the Keep Luna County Beautiful program the County helps fund sports registration fees for families who can't afford them by doing clean-up with the sports team and paying them per bag collected. The County is now planning programs for the next ten years.
- **CASA** – The County also participates in the CASA (Court-appointed Special Advocates) program. It uses trained volunteers to ensure a voice for abused and neglected children involved in the court system.

Women

Seniors

Deming Luna County Senior Center

The Deming Luna County Senior Center, also known as The Robert L. Beckett Senior Complex, is located at 800 South Granite Street in Deming. The Deming Luna County Commission on Aging manages the facility. The services and programs are for seniors 60 years of age or older and for spouses of, or widows/widowers of anyone who is 60 years of age or older and are provided for a suggested donation only.

The facility offers a number of services including: homemaker and respite services, daily low-cost lunches, and health screenings. The Senior Center also offers numerous activities such as tai chi, yoga, line dancing, bingo ceramics, and bridge. The Center has four wheelchair-accessible vans and offers a transportation service for doctor appointments, shopping, banking, beauty/barber shop, or any other appointments that a senior may have.



Education

Mimbres Valley Learning Center

The Mimbres Valley Learning Center (MVL) and Special Events Center houses a branch of Western New Mexico University. Opened in 2001, the facility offers customized training programs and technology for local and regional businesses and provides a facility for special events.

The Special Events Center provides a large location for the community to gather for conferences, workshops, meetings, banquets, receptions, dances, parties, craft and trade shows, and other special occasions. The event center contains three 100-person conference rooms, exhibit spaces, tables and chairs, audio-visual equipment, a large banquet hall and a state-of-the-art kitchen facility.



Mimbres Valley Learning Center



Deming Center for the Arts

General

Deming Center for the Arts

The Deming Center for the Arts is located in downtown Deming on the northwest corner of Gold and Pine. The building is the home of the Deming Arts Council, a non-profit organization that exists to promote and support the arts in Deming. The Deming Center for the Arts presents a new exhibit each month. The exhibits range from work by students



Deming Luna Mimbres Museum

of the Deming schools to works done by well known area artists.

The Center for the Arts is open Monday through Saturday, 10 a.m. to 4 p.m. except holidays. Both the building and the council are managed by volunteers. The Deming Arts Center holds Art Workshops on the 1st and 3rd Saturday of each month, 1:00-3:00 pm. Workshops are open to amateurs and professionals working in any medium.

Deming Luna Mimbres Museum

The Deming Luna Mimbres Museum is located at 301 South Silver St. in Deming. The museum houses exhibits relating to the everyday lives of the citizens of Deming and the Mimbres Valley. Run entirely by volunteers, it is open daily from 9:00 am to 4:00 pm and from 1:30 pm to 4:00 pm on Sundays.

Housed in the old National Guard armory, the museum is listed on the National Register of Historic Places and is also a State Historic Site. All of the museum's exhibits come from private donations. They include paintings, furniture, period rooms, antique machines and tools, toys, dolls, clothes, vehicles, farm equipment, war memorabilia, photographs, Indian artifacts, gems and geodes, and an important collection of Mimbres pottery.

Marshall Memorial Library

This facility was originally founded as the Deming Public Library in 1917 by the Library Association, which was organized by the Deming Women's Club. Over the years the Marshall Memorial Library outgrew its physical space and was relocated twice. It currently is located in the 16,000 square foot former Garcia Civic Center at 110 South Diamond Street in Deming. The library has over 60,000 volumes, including printed materials and internet computers. The library has a total staff of eight, including librarians and aides, and is open Monday to Friday from 9:00 am to 5:45 pm and Saturdays from 9:00 am to 12:45 pm.



Marshall Memorial Public Library

Columbus Village Library

This library is housed in a single building with an addition that contains a large computer room. The building was renovated in 1995 as a library, with the addition renovated and connected to the library in 2004 to provide over 20 Internet-ready computers. The library includes one main room containing stacks and the checkout area plus six computers, and a second room specifically geared toward adult use for

quiet reading, meetings and exhibits. The computer room serves all ages. The library staff consists of three people, all with part-time schedules. Two volunteers assist them. Volunteers operate the computer room, with approximately 16 people taking shifts throughout the week

All spaces appear to be in good condition, although the main library room is crowded and lacks space for expansion or for special programs that require significant space. The site also includes an outdoor patio/program space on the north side. The library collection contains some 15,000 books, 350 audio books, 1,400 DVDs and VHS tapes, 52 on-line databases and 14 periodicals in print.

For the past several years, the charitable efforts of the McCune Foundation and the Friends of the Library have covered expenses such as heating and cooling.

The Village purchased one lot to the west of the building for a future expansion. Planning and design for this is the first priority on the ICIP for FY 2014.

Luna County Humane Society

The Luna County Humane Society is a non-profit organization that provides a safe place for stray and lost animals in Luna County by finding new homes or foster care for them until they find homes. The Humane Society offers the following programs: animal adoptions, spay/neuter program for low income, pet cemetery, Junior Humane Society, Foster Program, farm cats Volunteer opportunities, and Work Source Opportunities. The animal shelter's operating costs are funded by the County, but it is staffed by volunteers.

Keep Luna County Beautiful

Keep Luna County Beautiful (KLCB) is a program that is funded by state grants and Luna County. KLCB has been dedicated to working with the community of Luna County for over nine years to make the environment healthier, safer, and a more beautiful place to live and visit.

The mission of Keep Luna County Beautiful is to engage individuals to take greater responsibility for the improvement of their community environment. To accomplish that mission, KLCB focuses on four goals: education, litter prevention, beautification, and waste reduction. The following is a listing of all the projects and programs managed by Keep Luna County Beautiful:

- Great American Cleanup
- Waste In Place
- Graffiti Hurts
- November Recycles Month
- Earth Day
- Community Cleanups
- Youth Sport Partnerships
- Rest Area Respite
- Adopt-a-Roadway
- Youth Community Service
- Toss No Mas
- Recycled Art Contest
- Public Seminars
- Tire Recycling
- “You CAN Do It”
- Beautification Challenge
- Volunteer Incentive Program(VIP)
- Deming High School Recycling Program
- Deming/Luna County Recycling Locations

2. Parks, Recreation and Entertainment

The parks in Luna County are operated by the City of Deming, Village of Columbus and the State of New Mexico. The County operates or contributes financially to the following recreation centers.

Sam Baca Aquatic Center

Located at 815 West Buckeye Street in Deming, this swimming facility offers three pools, including a jetted therapy pool, 25-yard competition pool and activity pool with a zero-depth beach front and 150-foot water slide. All of the facilities’ pools are heated.

The facility offers three sessions of swimming lessons during the summer, as well as party rentals on Friday and Saturday nights. The facility is open from May to August on Monday – Friday from 6:00 am to 9:00 pm and Saturday from 9:00 am to 7:00 pm.

Rio Mimbres Country Club & Golf

The 18-hole Rio Mimbres Country Club in Deming, NM, is a semi-private golf course that opened in 1950. Designed by Keith Foster, Rio Mimbres Country Club measures 6,700 yards from the longest tees and has a slope rating of 123 and a USGA rating of 71.6. The course features Bermuda grass greens and three sets of tees for different skill levels. Online



Sam Baca Aquatic Center

tee times may be available at Rio Mimbres Country Club or at nearby golf courses, usually offered at a discount from the normal rate.

STARMAX

Starmax Deming is a family entertainment center that offers first-run movies in six theaters, 16 professional bowling lanes, miniature golf, food and drinks, and large gaming arcades. It also offers a Sports Bar and Grill with beer and burgers. Dances, birthday parties, and other events are also held there. The County built the tax-sponsored facility, owns the businesses and has hired a general manager to operate it.



3. Public Safety Facilities and Services

Luna County Sheriff's Department

Headed by Sheriff Raymond Cobos, the Luna County Sheriff's Department employs a total of 38 full-time staff: a captain, four sergeants, five lieutenants, one corporal, 22 deputies, and support staff. The department also employs an additional 12 reserve deputies. The department has a total of 54 units (patrol cars), some of which are assigned to the department's reserve deputies. There are also 22 ATVs and trailers.

The Sheriff's Department is located in one station in Deming. A second station in Columbus is currently under construction.

The department Patrol Division is responsible for all of the unincorporated county, as well as 54 miles of the US/Mexico border. The Sheriff's Department also shares concurrent responsibility with the Deming and Columbus Police Departments. The Patrol Division consists of three shifts of eight deputies including a lieutenant, sergeant, corporal, and several deputies. The Patrol Division manages 24-hour response to calls for both civil and criminal complaints.

The Luna County Sheriff's Department Criminal-Investigations Division (CID) handles most felony-level criminal investigations. CID has one lieutenant, one sergeant, and three investigators. CID investigators respond to crime scenes and complete preliminary and follow-up investigations, conduct research to establish common links among crimes, then seek to identify and arrest violent offenders. Afterward, they record and track statistical information on criminal activity.

At this time, the current response rate of 3.5 minutes indicates that substations are not necessary for the near future. The department operates seven days a week, 24 hours a day.

Luna County Fire Department

There are a total of five volunteer fire districts in Luna County. They are Florida Mountain Volunteer Fire Department (Fire District 402), Cooke's Peak Fire District (Fire District 403), Savoy Fire Department (District 408), Sunshine Volunteer Fire Department (Fire District 404), and Columbus Volunteer Fire Department (Fire District 406). There are currently two chiefs managing four districts. Chief Randy Brokaw heads the Sunshine and Florida Districts, while Chief Luis Malina heads Savoy and Cooke's Peak Districts. Chief Ken Riley heads Columbus Fire District in the Village of Columbus.

Cooke's Peak Volunteer Fire District is located off of Highway 26 northeast of Deming at 2470 Tulip Dr NE.

Sunshine Volunteer Fire Department is located at 65 Sunshine Road, approximately 8 miles south of Deming.

Florida Mountain Volunteer Fire Department is located approximately 12 miles east of Deming at 3205 Josefita Rd SE.

Savoy Fire District is located approximately 13.5 miles west of Deming at 14150 Highway 418 SW.

The Columbus Volunteer Fire Department is located in Columbus at 504 Wisconsin Street.

Luna County Detention Facility

The Luna County Detention Center (LCDC) was built in 2000 and holds 435 (or 376?) inmates. As a county jail, the facility holds inmates charged with crimes that range from traffic tickets to murder until they are sentenced by a court, typically about 364 days. It also has accepted up to 100 detainees at any one time detained by US Marshals. The facility books and releases about 4,000 people a year and costs approximately \$5 million annually to operate.

The LCDC is divided into three departments: Administration, Adult Detention and Juvenile Detention. The design of the facility differs from a traditional jail in that there are no bars in the LCDC separating officers and inmates. Instead walls with glass partitions are incorporated to allow officers to maintain direct supervision of all inmates. One of the capital needs is to

replace a 166-bed unit made from storage containers in 2007. They have poor insulation, heating and air conditioning and are lined with highly flammable material. They were closed by federal marshals. The county will have to decide whether to build another facility or no longer hold federal inmates. Federal funds no longer cover what it costs to imprison these inmates. The director did obtain funding to build a perimeter fence and is working toward accreditation by the state and eventually the American Correctional Association, which sets the model for standards.

The LCDC is certified to house 20 juvenile inmates. The juveniles in custody are monitored at all times by a New Mexico-certified Juvenile Detention Officer. Deming Public Schools provides two teachers for educational classes, allowing the juveniles to maintain their education while they are in the facility. The facility offers both classroom instruction and online instruction. Besides educational services, detainees are also given counseling services and job training by New Mexico Workforce Solutions.

A total of 35 employees work at the Luna County Detention Center, including four sergeants, one lieutenant, a director, and numerous support staff. The new director has brought a higher level of professionalism to the position, focusing initially on revising policies and procedures, training officers and developing an Emergency Response Team. Next he would like to focus on improving the recidivism rate, which is very high, and conducting mental health and medical assessments. He estimates that about 80 percent of those incarcerated have committed crimes to get money for drugs or alcohol. The detention center is starting a small Alcoholics Anonymous group and will partner with other DWI and substance abuse staff. Currently medication is the only treatment available to inmates with mental illness – who make up 20 to 25 percent of the incarcerated population – but the facility plans to hire a mental health counselor. Inmates with severe mental illness can be committed to the institution in Las Vegas for a seven-day evaluation but may be released afterward (Pers. Comm. Mathew Elwell, July 2012).

A few other support programs exist. InsideOut Dad is a program run by Helping Hands in Luna County to reconnect incarcerated fathers with their families and help them re-enter the community. There is also a faith-based transitional housing facility with six beds for females and another 10 beds for men.

ADA Compliance

Luna County recently developed a Transition Plan to comply with the Americans with Disabilities Act of 1990. In June 2011, the county inventoried the access to County facilities. The Transition Plan lists physical barriers in each of some 25 facilities that limit accessibility to its programs, services, or activities for people with disabilities. These include parking, ramps, signage and striping/emblem. The plan specifies the presence and condition of each of these barriers on the facility premises and which need to be upgraded. The County will strategically commit, upon availability, funding from the local ICIP annual allocation toward the ADA compliance projects.

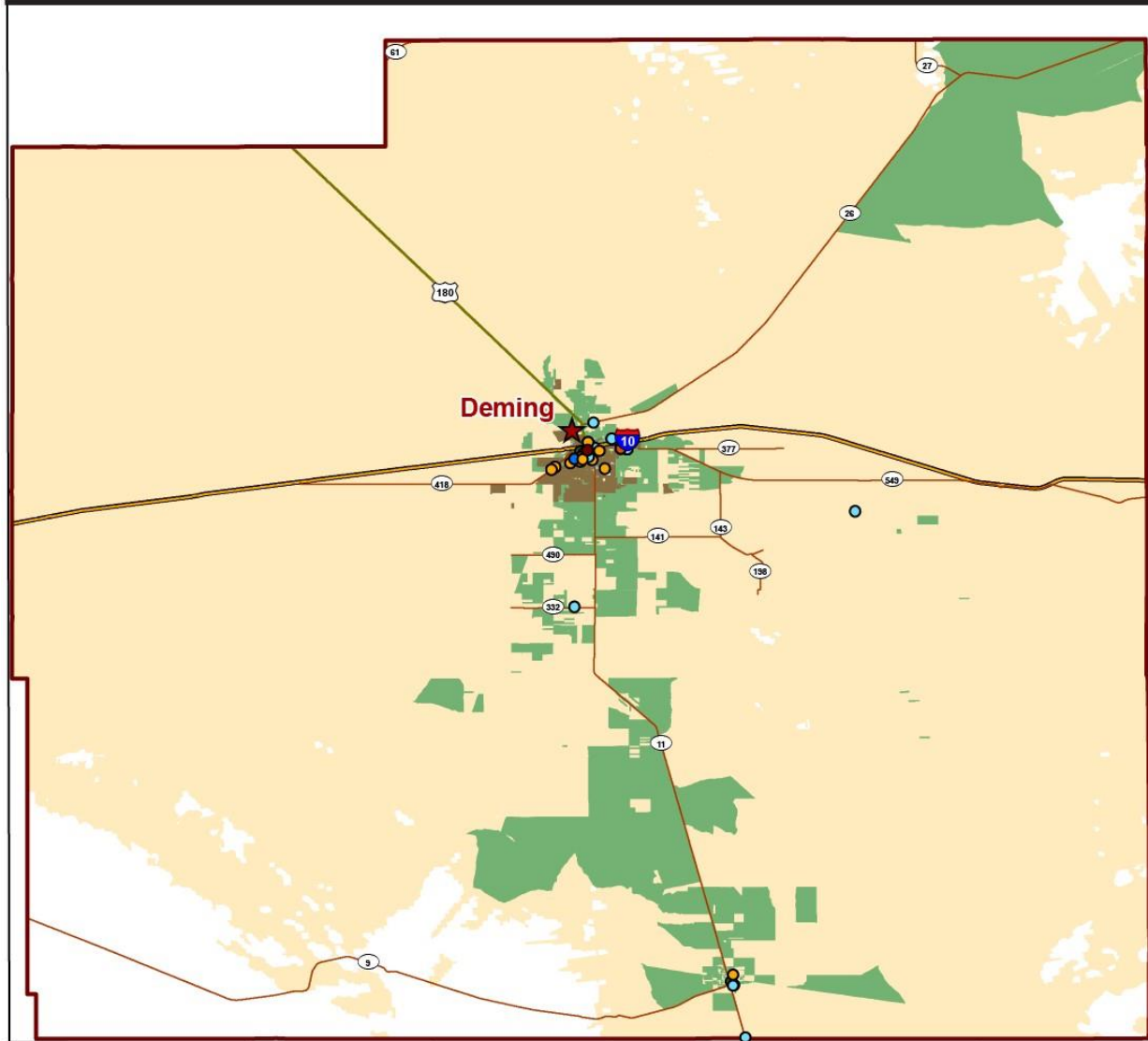
Telecommunications

Luna County has fairly widespread broadband coverage, defined as a telecommunications signaling method that handles a wide band of frequencies and thus has a greater capacity to carry information. Prior to the invention of home broadband, users could access the Internet only through dial-up modems. Broadband coverage has become a critical infrastructure component as access to the Internet becomes more and more important to modern life.

The New Mexico Broadband Program maps broadband availability throughout the state and maps the percentages of households not served in each county. As shown in Figure 21, the most populated areas of Luna County had DSL (digital subscriber line) coverage, part of the City of Deming had cable coverage, a few places had copper wire coverage, and most of the remainder of the county had mobile wireless coverage (NM Department of Information Technology, April 2012). It is estimated that less than 30 percent of Luna County residents are not served by broadband (excluding satellite and wireless), compared with less than 10 percent in the state generally. This could be due to an inability to afford such service.

Figure 21. Luna County Broadband Availability

April 2012



0 5 10 20 Miles

Broadband Data from Telecom Providers
 Data is current as of the date : 1 April 2012
 State Broadband Map : <http://nmdbbmapping.org/mapping>
 Contact : nm.broadband@state.nm.us

LEGEND

- | | |
|--------------------------|--------------------------------------------|
| Cable Coverage | County Seat |
| Copper Wire Coverage | School - K through 12 |
| DSL Coverage | Library |
| Mobile Wireless Coverage | Medical/healthcare |
| Interstate | Public safety |
| US Highway | University, college, other post-secondary |
| State Highway | Other community support - Government |
| | Other community support - Non Governmental |

Prepared by:



D. Issues and Opportunities

The following issues and suggestions surfaced during the two public meetings, stakeholder interviews and teen focus group.

1. Social Services

- The importance of continuing juvenile crime prevention programs, teen pregnancy and other programs.
- Need for local treatment for substance abuse.
- Need for more mental illness and substance abuse treatment in the detention center as well as transitional programs to help prisoners re-enter the community and stay out of jail.

2. Education

- Need for a range of post-secondary education: college classes, continuing adult education (hobbies, computer literacy, and other workforce skills), trade skills such as plumbing, electric, carpentry, and car repair, along with apprenticeship programs.
- More preschool and reading instruction.
- Residents in Columbus would like to start a charter high school in Columbus. Currently kids bused into Deming, an hour-long ride. They feel it would also bring some needed dollars into the town.

3. Youth Activities:

- Keep the swimming pool open beyond the summer.
- A Teen Club—a place for teens to hang out, particularly on the weekends. For example, Warehouse 508, a renovated warehouse in Albuquerque, sponsors after-school classes in rock band, film, and dance and holds or rents space for dances with a band or DJ on the weekends.
- More entertainment and recreation: dances, more parks, batting cages, more sports, indoor sports complex, swim team, go-carts, bike trails, places for four-wheeling, BMX, skateboarding.
- More security at the Starmax Entertainment Center, where the combination of adult and youth recreation feels threatening to young girls.

4. Adults

- Extend library hours. Current hours are 9 am to 5:45 pm. Monday through Friday and 9 am to 12:45 pm on Saturday.
- Summer childcare availability.
- Additional entertainment and recreation such as a shooting range, more use of Pit Park, such as music at the pavilion.
- More classes, such as dancing and yoga
- Community theatre
- A central Farmer's Market
- More services for residents in remote areas of the county.

5. Facilities

- Need for another facility at the detention center to replace the storage container unit, or stop accepting federal prisoners.
- Bicycle lanes striped and signed and off-road pathways constructed.
- More shade.
- Location of parks near schools.
- Need for an adult day shelter for the homeless where they could bathe and get a meal.
- Assisted living facility for seniors.

E. Community Services and Facilities Goals and Strategies

CS&F Goal 1: Facilitate and encourage telecommunications infrastructure.

Strategy a. Ensure that all residents have access to high speed internet service.

CS&F Goal 2: Coordinate Federal, State and County efforts to provide recreational facilities that meet the present and future needs of Luna County residents.

Strategy a. Inventory all recreation resources and activities available in Luna County and make this information available to residents and visitors.

Strategy b. Provide directional and information signs for parks and recreation facilities.

Strategy c. Maintain public access and easements to public lands that are used for recreation.

Strategy d. Allow all segments of the population (teens, seniors, families, etc.) to evaluate and prioritize potential additional services or facilities to be pursued in the future as funding permits.

- Provide access to an on-line questionnaire such as Survey Monkey.
- Provide paper questionnaires in English and Spanish at convenient locations.

Strategy e. Consider the feasibility of providing some services and facilities requested by the public during the public meetings for the comprehensive plan.

- Extend library hours to accommodate more users.
- Provide more security at the STARMAX.
- Extend swimming pool availability beyond the summer months.
- Establish a Teen Club where kids could hang out on the weekends.
- Summer childcare?
- Support the Farmers' markets.
- Cooperate with the City of Deming to provide more shade in the parks by planting trees or building shade structures.

CS&F Goal 3: Increase the number of safe facilities for recreational use by pedestrians, bicyclists, and equestrians.

- Strategy a. Enforce existing laws on sharing the road to protect both motor vehicles and pedestrians, bicyclists and wheelchairs.
- Strategy b. Develop a trails and bikeways master plan with community input.
- Designate specific trails for all-terrain vehicles.
 - Plan on-road bicycle lanes and routes through the city of Deming through signage and striping.
 - Link bike routes and off-road paths to schools, parks and other facilities.
- Strategy c. Build new shared use paths, or trails, in specific locations.
- Strategy d. Coordinate with Healthy Kids Luna County in its initiative to create safe bicycle and pedestrian paths to youth destinations.



CS&F Goal 4: Ensure design, construction, and maintenance of high quality facilities that are energy-efficient and that the public is proud of and uses.

- Strategy a. Maintain facilities so that they can serve their function.
- Continue to upgrade facilities on a regular schedule to meet ADA requirements.
- Strategy b. Consider long-term operations and maintenance costs in decisions about acquiring existing facilities or constructing new buildings.
- Decide what to do about the storage container units at the detention center.

CSF Goal 5 (also ED Goal 1) Improve educational opportunities for Luna County residents of all ages.

- Strategy a. Broaden the adult (community) education available at the Mimbres Valley Learning Center to provide basic workforce training and as well as college classes.
- Strategy b. Create new and strengthen existing partnerships with New Mexico Workforce Solutions, WNMU, DACC, NMSU, other education providers and private businesses to offer the classes needed in the County.

CS&F Goal 6: Promote joint community use of school facilities.

- Strategy a. Joint use of school facilities – community schools that also serve as community activity centers.
- Strategy b. Locate new parks near schools and within walking distance of community residents.

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Chapter 8: Transportation

This section provides an inventory and description of Luna County's existing transportation system and its capacity to accommodate future needs. The county's system includes thoroughfares for motorized vehicles, freight and passenger rail service, and air transportation.

A. Background

The purpose of the transportation element is to provide a framework for a multi-modal transportation system which efficiently and effectively supports the transportation needs of county residents. To achieve this, policies that provide direction for the varied transportation needs of the county need to be developed and implemented. Potential outcomes of a coordinated transportation plan would be decreased congestion, easier access to county businesses for residents and visitors, and increased access to transportation by seniors, underprivileged, people with disabilities, and youth. Planned development of the county's transportation system can be also potentially attract business to the county and promote economic development.

B. Existing Conditions

1. Road Network

Highways

Interstate Highway 10

As detailed in Figure 22, Luna County is bisected by US Interstate 10, which connects to Las Cruces and El Paso and destinations such as Lordsburg and Arizona and California to the west.

US Highway 180

US 180, also known as the Silver City Highway, enters Luna County from the northwest and intersects with Interstate 10 in Deming.

NM Highway 11

NM State Highway 11 also intersects with I-10 in Deming and connects to the Columbus/ Palomas Port of Entry, which is located approximately 30 minutes south of Deming on the US/Mexico border.

NM Highway 26

New Mexico Highway 26 is a shortcut that runs directly from Deming, New Mexico to Hatch, New Mexico. While it represents the most direct route from Deming to Hatch, it also offers a quicker way to Northbound Interstate 25. This route allows access to the northern parts of Interstate 25 without having to travel to the Interstate 10 and Interstate 25 junction in Las Cruces, New Mexico. As detailed in Figure 22, NM 26 separates from US 180 approximately 1 mile north of downtown Deming and travels northeast toward Hatch.

NM Highway 9

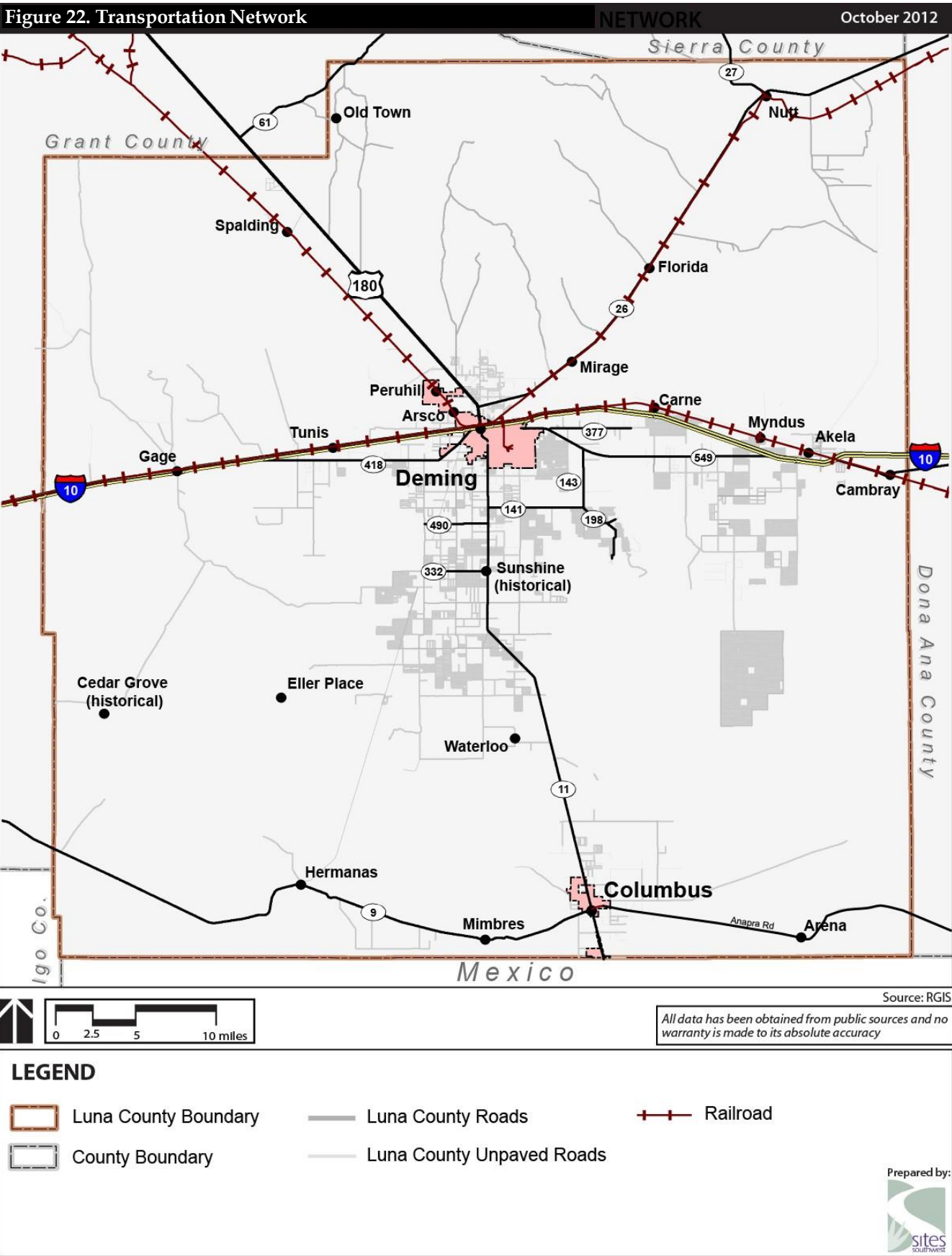
NM Highway 9 provides access across the full width of the state from Douglas, Arizona, to El Paso, Texas. It enters Luna County west of Columbus at Hachita, ends in Columbus and continues on to El Paso, Texas as Anapra Road.

County Roads

Because of its large size and sprawled distribution of land uses, Luna County includes slightly more than 6 percent of the state's roads, maintaining approximately 1,866 miles of roads. Many of the roads in Luna County are unpaved.

The classification of Luna County's existing road network can be categorized into two categories: local roads, and collectors. Each of these categories takes into consideration the distinct characteristics of each of the corridors and establishes the functionality of these roadways within the transportation network.





Local Streets

The primary function of this type of roadway is to permit direct access to abutting lands and provide access to higher classified streets. Traffic along these types of roadways usually carries the lowest amount of volume in the traffic network and discourages large amounts of traffic. Doña Ana Road is an example of a local road.

Collector Streets

Collector streets provide access to not low-volume areas such as neighborhoods, as well as to commercial and industrial areas. The collector street conveys traffic from the local street system to areas of interest as well as to the arterial street system. County Road C003/Hermanas Grade is an example of a collector road.

2. Transit Service

Corre Caminos

The Southwest Regional Transit District (SWRTD), also known as Corre Caminos, serves the Deming area, greater Luna County, as well as neighboring Grant and Hidalgo Counties. The mission of SWRTD is to establish a regional transportation service that is safe, affordable, sustainable and relevant to the mobility demands of the region's population

SWRTD's first bus run was from Deming to Columbus, NM in 2007. In December 2008, Corre Caminos provided a total of 528 round-trip bus rides between Deming and Columbus. In 2008, there were more than 65,000 riders regionally – 11,700 of whom were Luna County residents. The Deming/Columbus Shuttle offers four buses per day in each direction Monday through Saturday.



Greyhound Bus Station

Greyhound Bus Lines, Inc. is an intercity common carrier of passengers that serves over 3,000 destinations in the United States. There is currently one full-service station, located in downtown Deming.

3. Rail Service

Rail service in Luna County provides a means of transportation for both freight and passengers. Currently both the Southern-Pacific and the Atchison-Topeka and Santa Fe (ATSF) railways run through Luna County. The Southern-Pacific runs east and west while the ATSF runs in a U-shape from the northwest down to Deming and then to the northeast.

Essentially the rail line follows the path of U.S. 180 and N.M. Highway 26. A large volume of freight is carried on these two lines. The Sunset Limited and Texas Eagle Amtrak train routes also travel through Luna County.

4. Air Transport

Deming Municipal Airport

Located 2 miles southeast of Deming, the Deming Municipal Airport is a public-use airport that serves the City of Deming and Luna County. The airport covers an area of 2,870 acres and has two paved runways. Runway 8/26 is the principal runway. 8/26 is 75 feet in width and was recently extended to 8,000 feet in length. Runway 4/22 is 5,657 feet long and 60 feet wide. Both runways are in relatively good condition. The existing configuration of Runways 8/26 and 4/22 provides combined wind coverage of nearly 98 percent of all winds up to 47 miles per hour.

The facility accommodates airplanes up to and including those classified as approach category “B” and airplane design group II. For the 12-month period ending April 19, 2011, the airport had 28,655 aircraft operations, an average of 78 flights per day. At that time there were 16 aircraft based at this airport: 88% single-engine and 12% multi-engine.

In 1995, a terminal with passenger and crew facilities was established on the north side of the airport. Fueling is provided from three fuel service trucks and a modern fuel delivery system. Line service is provided by professionally trained personnel. The terminal also contains a 70-person conference room. Over 10,000 square feet of hangar space is available for transient aircraft and a 5,000 square foot repair facility is available.

Columbus Stockyards Airport

Owned by Luna County, this private-use airstrip is located 3 miles south of Columbus and consists of one runway that is 60 feet wide and 5,000 feet in length.

Hacienda Sur Luna Private Airport

This privately-owned facility is located 3 miles north of Columbus. The airport covers an area of 307 acres and has one paved east/west runway that is 30 ft wide and 4,800 feet in length.

Columbus Municipal Airport

A privately-owned facility located 1 mile southeast of Columbus that covers an area of 113 acres. It consists of one gravel runway that is 250 feet wide and 4,210 feet in length.

C. Issues and Opportunities

1. Traffic Congestion

All major roadways in Luna County have experienced an increase in traffic, which leads to traffic congestion. The most notable increases in traffic in Luna County are on NM 11 between Deming and Columbus. This road, which only saw an average of 3,000 vehicles per day in 1999, now is traversed by more than 9,000 vehicles per day. US 180 from Deming toward Silver City has also seen a dramatic increase in traffic, up to almost 4,000 vehicles in an average 24-hour period.

Traffic along the Columbus Highway leading into downtown Deming has also progressively worsened congestion, and contributed to a situation that has been accentuated by increased activity at the Port of Entry. Semi-truck traffic has been particularly problematic since they are longer and cause more of a bottle neck at the Gold and Pine intersection in Deming as the truck traffic attempts to access US 180/NM 26 and the I-10 west- and east-bound on-ramps. In the past, residents have identified the need for a truck route around Deming to alleviate the traffic problems along the Columbus Highway and the Gold/Pine intersection.

2. Commercial Traffic

The expansion of commercial traffic in the greater Deming area has contributed to safety concerns and congestion. According to the 2009 Comprehensive Transportation Study for Deming and Luna County, the vast majority of commercial truck traffic utilizes NM 11 through Deming to access Interstate 10. A significant amount of truck traffic also utilizes NM 26, located just north of Deming's city limits. This situation has led to safety concerns and traffic congestion as heavy commercial traffic mixes with regular vehicular traffic.

3. Sidewalks/Pedestrian Trails

According to County's Road Department Superintendent, there are no pedestrian trails or sidewalks in the county. Because there is a significant amount of large equipment and trucks traffic on county roads, this is a safety hazard for pedestrians.

4. Land Use Patterns

Dispersed home locations are made possible chiefly by a well planned road system. A study of the relationship between local land use and household travel patterns found that low intensity development (dispersed home locations) generates nearly two-thirds more vehicle hours per person than in more dense areas.

Furthermore, heavy use of automobiles is a major contributor to air pollution, carbon-dioxide emissions, and respiratory health problems. In a community with limited public transportation, a low intensity development pattern makes seniors and other populations dependent on automobiles for much of their needs.

5. Dust Storms

- This condition derives from blowing dust, which is common in Luna County due to the grading of roads by the County, the dragging of dirt roads by the Border Patrol to make tracks more visible, and the scraping of private lots to comply with the weed ordinance. Some dust also occurs as a result of overgrazing of rangeland and earlier agriculture practices.
- A 120-mile stretch of Interstate 10 from Lordsburg to Las Cruces is routinely closed because of low to zero visibility due to dust storms. Previous dust storms have resulted in fatalities on the highway. At the end of 2011, NM DOT installed a low visibility detection system along I-10 at the southwest corner of New Mexico where an ancient dry lake bed or playa is located. Part of a technology transfer research project with NM State University, the system is designed to work in a coordinated fashion with other ITS (Intelligent Transportation Systems) components such as electronic signs and highway advisory radio to help manage incidents when dust storms occur.

D. Transportation Goals and Strategies

Transportation Goal 1: Provide multi-modal transportation options/alternative methods of transportation county-wide.

- Strategy a. Develop a trails master plan that identifies potential corridors for bicycle routes, including bike lanes and trails, and pedestrian routes.
- Strategy b. Make improvements AMTRAK station to improve safety and comfort.
- Strategy c. Expand Safe Routes to School Program to enable students to walk to school.
- Strategy d. Work with the city of Deming and village of Columbus to develop connections to existing sidewalks, trails, and paths.
- Strategy e. Identify funding sources to construct and maintain bike routes.
- Strategy f. Support Corre Caminos' provision of public transportation by developing a program to increase public awareness of the transit service.
- Strategy g. Make improvements to existing bus stops to increase safety and comfort.

Transportation Goal 2: Provide a safe, sufficient, integrated transportation system for the county.

- Strategy a. Develop a list of the priority streets for paving that would best serve county residents.
- Strategy b. Continue to secure state funds for road infrastructure development/ improvements.
- Strategy c. To reduce fugitive dust related to roads, maintain dirt and gravel roadways following best practices for handling drainage off the driving surface and for dust control.
- Strategy d. Revise the Subdivision Regulations to address street improvement development and design standards for all new development.
- Strategy e. Work with NM DOT to resolve issues with State roads.
- Strategy f. Pursue funding for developing roads within colonias.

Transportation Goal 3: Establish maintenance standards for all County roads and reduce fugitive dust related to unpaved roads.

- Strategy a. Establish road standards for both paved and unpaved roads to reduce fugitive dust.
- Strategy b. Conduct a road inventory and develop standards based on traffic and the County's ability to maintain them.
- Strategy c. Grade dirt roads at appropriate times; for example, when ground is moist, and grade only when necessary.
- Strategy d. Establish dust control standards and requirements for all subdivisions and developments.

Transportation Goal 4: Reduce commercial truck traffic in the Deming area.

- Strategy a. Identify and coordinate the development of a mutually-agreeable truck bypass route with the city of Deming.

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Chapter 9: Hazard Mitigation

Based on the 2004 Luna County Mitigation Plan, this section identifies the natural, human-made, and human-caused hazards that exist in Luna County, such as dust storms, drought, terrorism, and hazardous materials. In addition to identifying potential hazards, this section develops strategies to reduce or eliminate either the hazards themselves or the damage potential they pose.

A. Background

Hazard mitigation planning has grown in importance across the country as cities, counties and states have had to grapple with the increasing amount and intensity of natural disasters as well as the threat of man-made ones. In 2000, Congress passed the Hazard Mitigation Act which encourages pre-disaster planning and requires local mitigation plans as a prerequisite to receiving federal Hazard Mitigation Grants. To support planning efforts, the Federal Emergency Management Agency (FEMA) has funded many local and state mitigation planning efforts.

Under the All Hazard Emergency Management Act (Chapter 12 Section 10 NMSA 1978), local political jurisdictions are responsible for hazard management within their territorial boundaries.

The 2004 Luna County Hazard Mitigation Plan is a multi-jurisdictional plan that addresses the hazard mitigation concerns of Luna County. The purpose of the mitigation plan is to identify the hazards that exist in both Deming and the greater county, and develop strategies to reduce or eliminate either the hazards, or the damage potential that they pose.

B. Categories of Hazards

The Luna County Mitigation Plan has identified four major types of hazards within the county: flooding, dust storms,

hazardous material release, and drought. Although other hazards such as severe weather, tornados, earthquakes, and wildfire can occur, it was determined that the possibility of their occurrence was less probable than that of flooding, dust storms, or hazardous material incidents. Hazards can be broken down into three main categories, which are as follows:

1. Natural Hazards

A natural hazard is anything that occurs due to weather and geological events that is outside human control. Such events include floods, earthquakes, severe storms, tornados, landslides, forest fires, and drought.

2. Human-Made Hazards

A human-made hazard is an event caused by human construction or design failure. Such events could include dam failure, pipeline break, erosion, landslide or flooding due to construction, and hazardous material spills.

3. Human-Caused Hazards

A human-caused hazard is any event that has been caused due to the intentions or negligence of humans. Such events could include hazardous material transport accidents, arson or accidental fires, and acts of terrorism.

C. Natural Hazards

1. Floods

Three types of flooding appear to be of the most concern in Luna County: flash flooding, storm water drainage, and riverine flooding.

Flash Floods

A flash flood is a very dynamic event in which a large volume of water moves through an area at high velocity in a very short time. Generally, flash floods are created as a result of rainfall. As rainwater runs into small channels, it begins to collect. As these channels merge together, the amount of water increases and picks up speed and force. This collection of water can wash vegetation, structures and other debris along with it. The debris then increases the amount of force available

and increases its destructive power. Other factors also affect the dynamics of this type of flood including slope, width, and vegetation that is in place along the banks of the water course. Such flooding poses a major concern in built-out areas, including Deming and Columbus.

Storm drainage

As rain falls on any given area, some of the water will be absorbed into the ground. However, the water that is not absorbed or ponded on site will run off. Depending on the area's flatness and the presence of a storm drainage system, this water can create flooding. Since the water will flow to the lowest point, these areas become temporary holding ponds. The water then evaporates back into the atmosphere, is absorbed back into the earth, or is physically removed using pumps or other equipment.

Depending on the angle of the slope, passing storm waters develop a tremendous amount of force. These waters can damage structures, push debris in front of them much like a flash flood, and cause soil erosion.

In past years, flash flooding has resulted in damage to residences in low-lying areas, and standing water has caused the temporary closure of some roadways. When standing water collects in roadways, a temporary disruption of traffic flow occurs, and law enforcement is required to monitor these areas to ensure traveler safety.

Riverine flooding

The Mimbres River, which is usually dry, runs through Luna County. When it rains, it can cause flooding along its path. The amount of water flowing through a river at any given time determines the river's depth. When a large amount of water finds its way into a river or stream, the height of the water relative to its path increases. When this occurs, the river will overflow its normal banks and flood the surrounding area to the water's present height. The height of the river's banks determines how far out a flood will spread. This type of flooding, like flash flooding, will begin at some point above where the flooding occurs.

Portions of the county located along the Mimbres River basin have problems with flooding that are mostly due to the area's natural lack of drainage. Furthermore, construction throughout the county can also drastically affect natural

drainage. This is partly due to the normal grading and site preparation that occurs during any construction project. It is also due to the structures themselves, which enhance the amount of storm water runoff because there is less exposed soil and vegetation to absorb water.

Luna County is vulnerable to flooding throughout the unincorporated county. Riverine flooding represents a low threat, with the possibility of one occurrence every 10 years. According to the National Climatic Data Center (NCDC), no riverine floods occurred in Luna County between 1950 and 2006. Luna County is also vulnerable to flash floods and storm drainage accumulation, creating a great threat to the county with events occurring at least once every 5 years. NCDC records indicate that 14 flooding events occurred in Luna County between 1950 and 2006.

Flooding in Luna County will continue to be an increasing problem as the population grows and new development takes place within the county. Because the current Flood Insurance Rate Maps do not include all areas known to be prone to flooding, construction of commercial and residential structures will likely continue in these areas. New construction can further create flooding potential in areas where flooding had not been a problem in the past. Changing an area's contours, along with the loss of vegetation and paving of parking areas, creates altered storm water run-off pattern which can increase the chance of flooding in surrounding areas. The use of on-site retention basins can eliminate the risk of flooding in surrounding areas due to new construction.

2. Dust Storms

Dust storms are caused by high winds moving across arid or dry landscapes with loose soil and little or no vegetation. Luna County is located in the northern section of the Chihuahuan Desert, and as such has a very fragile landscape. Early settlers to this area farmed and grazed cattle throughout the county. Over time, overgrazing occurred, stripping away vegetation and creating an unstable soil base which is susceptible to the effects of strong winds. These winds move across the barren landscape, picking up small particles of soil and suspending them in the air.

As the quantity of suspended particles increases, visibility is drastically reduced. Most dust storms will drop visibility to approximately a quarter of a mile; however, some storms have

been known to drop visibility to half a car length. In addition, dust storms are harmful to area agriculture and livestock.

The single most dangerous condition caused by dust storms occurs in the vicinity of Mile Marker 92-102 on both the east and west side of Interstate 10. Because I-10 is a heavily-used interstate highway the presence of a dust storm greatly increases the potential for a major roadway accident, which could also involve a hazardous materials (HAZMAT) incident, causing a greater potential loss of life. In event that a HAZMAT incident is also involved, the risk to life in Luna County is increased due to the lack of a HAZMAT response team and equipment in the county. State Road 11 is another area with reoccurring road closures due to dust storms.

Luna County is usually affected by at least one occurrence each year. The impact of dust storms in the county will cause, at a minimum, a disruption of area traffic patterns. In the most severe incidents, fatal motor vehicle accidents have occurred and HAZMAT events have been caused. Such occurrences cause a major disruption in traffic flow, creating lengthy closures of Interstate 10 and other area roads during the required accident investigations and lengthy HAZMAT response situations for area firefighters and the specialty units that may be required to handle spilled hazardous material.

3. Drought

Drought, as defined by the National Oceanic and Atmospheric Administration (NOAA), is a period of abnormally dry weather that persists long enough to produce a serious hydrologic imbalance. The severity of the drought depends upon the degree of moisture deficiency, the duration, and the size of the affected area.

The primary source of water used in Luna County is subsurface water from aquifers; as such, the present drought has no immediate effect on county residents. At present, the drought's greatest effect is causing the county to pump more water out of the aquifer to meet demand. However, the drought's long-term effects will be a lowering of the water level in the aquifers and the eventual limitation of growth in the county. The lowering of the water level in the aquifer is caused by the lack of sufficient recharge. The limitations on growth for the county are based on the availability of water rights, which are finite.

The lowering of the water level in the aquifer occurs because more water is being pumped out of it than is being replaced. The aquifer is recharged when water is returned to it as a result of rainfall and snow pack. The lack of rainfall and snow pack caused by the drought therefore creates a very limited recharge for the aquifer. In addition, the lack of rainfall creates a higher demand on the aquifer since it becomes the sole source of water available to meet the county's needs.

Presently the extent and duration of this drought remain unknown. Speculation varies concerning the severity of this drought from a ten-year drought cycle to a 2000-year drought cycle. No matter what drought cycle this is, two facts remain: 1) there is presently a drought in Luna County, and 2) the county's water needs will continue to climb as its population and agricultural needs increase. Mitigation strategies concerning drought cannot eliminate its existence. However, they can help ease the demands on the limited water supply in order to continue sustainable growth in the county.

4. Wild Fires

Luna County has had a history of wildfire involving agricultural fields that were abandoned after farming operations were suspended. Such fields often become overgrown with invasive vegetation that is mostly not native to the area. The resulting vegetation is a prime fuel source for wildfires. In some cases, the suspension of farming operations has been due to the selling of water rights that had been required for farming operations. In other cases, the federal government has paid farmers to keep their fields fallow as a resource management tool.

Finally, the changing economy has seen the reduction of farming operations nationwide.

Although wildfires can occur throughout the unincorporated county, there is little risk of major fire danger to lives or structures outside incorporated areas due to a very sparse population. Although large areas of wild land could be involved, few structures would be at risk. In the urban/wild land interface, single-family residences would be the most likely structures at risk.

D. Human-Made Hazards

1. Hazardous Materials

Hazardous materials are substances that are harmful to life and the environment. The materials are generally man-made and some are extremely toxic. Hazardous materials and incidents dealing with their release are referred to as HATMAT incidents. The United States Department of Transportation (US DOT) has identified 308 specific chemicals from 20 chemical categories as HAZMAT under the Emergency Planning and Right to Know Act of 1986. These chemicals cover a wide range of toxicities, and in small doses many have minimal or no effect on humans.

In New Mexico, transportation routes and facilities including pipelines, airports, highways, railroad routes, storage facilities and other related facilities may become involved in the release of hazardous materials. Highway transportation of HAZMAT involves tanker trucks or trailers and specialized bulk-cargo vehicles. Railroad releases consist of two main types: (1) collisions and derailments that result in large spills or discharges, and (2) HAZMAT releases from leaks in fittings, seals or relief valves, and improper closures or defective equipment. Natural hazards that increase transportation-related accidents are heavy rain or snowfall, causing slippery road conditions.

Luna County is vulnerable to HAZMAT events due to the transport of hazardous material along Interstate 10 and Highway 11 from the port of entry at La Palomas; rail traffic; and the use of hazardous materials in the county during the normal course of business. The presence of this type of transport creates the possibility of a HAZMAT incident. Risk is accentuated by the presence of dust storms. In addition, the area surrounding Deming is agricultural, and area farmers frequently transport quantities of hazardous material such as insecticides. In most cases, the quantity of agricultural material being transported is considered small. However, the accidental release of even 55 gallons of pesticide could cause major health concerns.

To date, no large-scale HAZMAT incidents have occurred in Luna County. However, the presence of hazardous material in the county and its transport through the county present the very real danger of an incident occurrence.

Although the New Mexico State Police are responsible for all HAZMAT incidents in New Mexico, it is acknowledged that their officers are not adequately prepared with training, personal protective gear, or equipment to be able to handle a HAZMAT event. In Luna County, any response to a HAZMAT situation, though supervised by the State Police, is actually handled by area fire departments. Currently there are five volunteer fire departments in Luna County: Cooke's Peak, Florida Mountains, Savoy, Columbus, and Sunshine. The City of Deming maintains fire departments and provides for the county's emergency medical services. Of the fire departments located in Luna County, none has the capability to provide a complete HAZMAT response. To date, aside from the limited equipment belonging to the State Police, any HAZMAT response requires units to be sent from 59 miles to the east in Las Cruces.

2. Power Outage

The possibility of a long-term power outage is of concern to Luna County. After the major blackout on the East Coast in 2003, the New Mexico Public Regulatory Commission met with El Paso Electric, the Public Service Company of New Mexico, Texas-New Mexico Power, Tri-State, and Xcel, which are all companies that supply electrical power to the state, as well as experts from Sandia Labs. The purpose of this meeting was to review New Mexico's electrical grid to determine the potential for a similar blackout, which likelihood was determined to be low. However, a blackout did occur in New Mexico in 1996.

Luna County has installed backup generators at critical infrastructure sites, which can supply limited electrical power in the event of a blackout. In addition, the county has emergency operation plans in place that can provide resources during a blackout.

E. Human-Caused Hazards

1. Terrorism

The possibility of a terrorist event occurring in Luna County does exist, but the likelihood of such an event occurring is considered slight. Though the possibility of a foreign terrorist event is considered small, no practical preventive mitigation of this possibility is presently available. There have been

several relatively minor domestic terrorist events in New Mexico and the surrounding region. No such events have occurred in Luna County.

The bigger issue for Luna County is its relative location in the state. Since Luna County is located on the southern border of the United States, there are continuing problems concerning the illegal entry of individuals across the border. Illegal immigration problems are the responsibility of the US Border Patrol, which works closely with local law enforcement agencies in this effort. Historically the only major warlike border crossing into Luna County was made by Pancho Villa, who led a raid against Columbus, New Mexico, in the early 1900s.

Although no such incursion is anticipated today, it is possible for terrorists to cross into the United States along this border undetected. This situation is known to the United States Government, and the US Border Patrol had been addressing this situation.

F. Hazard Mitigation Goals and Strategies

The following goals and recommendations from the Implementation Strategies of the 2004 Luna County Mitigation Plan are intended to reduce or eliminate the damage potential posed by the hazards detailed in this chapter.

Hazard Mitigation Goal 1: Reduce the overall negative impacts of hazards in Luna County

Strategy a. Establish a Hazard Assessment team that can evaluate existing hazards and the effectiveness of the county's hazard mitigation strategies.

Hazard Mitigation Goal 2: Prevent flooding in the unincorporated areas of Luna County.

Strategy a. Evaluate and revise current building and zoning codes to ensure that future construction is not located within the county's known floodplains.

Strategy b. Seek a detailed update of the Luna County Floodplain Insurance Rate Maps.

- Strategy c. Provide property owners with information concerning flood insurance in those areas identified as having flood exposure.
- Strategy d. Alleviate the flooding potential of the North Park subdivision and Cooke's Peak Fire Station.
- Strategy e. Identify existing natural drainage channels and establish drainage easements along existing waterways.
- Strategy f. Encourage on-site water retention for all new development.
- Strategy g. Discourage new development in areas where flooding occurs.

Hazard Mitigation Goal 3: Eliminate or reduce the damage caused to roadways in Luna County as a result of flooding.

- Strategy a. Identify and evaluate all waterways that cross or parallel county roads for their potential of flooding and erosion.

Hazard Mitigation Goal 4: Provide early warning to local law enforcement agencies in order to take proactive steps when dust storms occur.

- Strategy a. Create an early warning system that will provide law enforcement agencies, the Emergency Services Department, and area fire departments time to react to the approach of a dust storm.

Hazard Mitigation Goal 5: Develop a rapid, organized, and safe response to dust storms.

- Strategy a. Continue to provide assistance to the New Mexico State Police, the Luna County Emergency Services Department and area fire departments in responding to highway closures due to dust storms.
- Strategy b. Require fugitive dust mitigation measures for all new developments.

Hazard Mitigation Goal 6: Institute ecological measures to create a long-term solution to the problems caused by dust storms.

- Strategy a. Establish wind breaks in the areas where dust storms create the largest problem.
- Strategy b. Implement a large-scale soil stabilization program in the areas of greatest concern.

Hazard Mitigation Goal 7: Develop the capability for HAZMAT response in Luna County.

- Strategy a. Establish MOUs with fire departments in other counties in southern New Mexico.

Hazard Mitigation Goal 8: Reduce the risk of a HAZMAT incident involving interstate transport of hazardous materials.

- Strategy a. Create building/zoning codes that limit the exposure of major transportation routes to the potential dangers of fixed-site HAZMAT events.
- Strategy b. Establish a local hazardous material route in the Deming area to ensure that local residents' exposure to the potential of a hazardous material release is minimized.

Hazard Mitigation Goal 9: Establish a county-wide water conservation program through educating the general public about methods that can be used to reduce present water use.

- Strategy a. Provide the public with information concerning actions they can take to reduce their personal water use.
- Strategy b. Provide the public with information concerning drought-resistant landscaping materials and the use of reusable water sources.

Hazard Mitigation Goal 10: Reduce overall water use in the county during times of drought.

Strategy a. Enact legislation that restricts water usage in Luna County based on existing drought conditions.

Strategy b. Encourage the use of gray water recovery systems in new construction projects.

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