



Greater Carlsbad Comprehensive Plan: Strategy 2030

FINAL DRAFT
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Chapter 1:

Introduction to the

Comprehensive Plan

Comprehensive planning in New Mexico is defined by legislation adopted in the 1960s that replicates national planning and zoning enabling legislation enacted in the 1920s. The Standard City Planning Enabling Act was developed by the Commerce Department in 1928 as the country's first attempt at defining comprehensive planning within the United States. The legislation changed the subdivision process from the mere dividing of lands and recording those divisions in plats to a process where local governments could manage city development through linking subdivisions to requirements for public improvements and the regulation of land uses.

A. Introduction

Since the 1960s, the New Mexico legislature has adopted a variety of amendments to its planning law, but its definition of what constitutes a comprehensive plan remains generally unchanged. As a result, Carlsbad and Eddy County are guided by state statutes (NMSA Section 3-19-9. et seq.) governing the general purpose and intent, preparation, and adoption of comprehensive plans. Though general in nature and in need of updating, the state statutes provide the authority and responsibility for municipal governments to adopt local comprehensive plans.

State statutes empower the City of Carlsbad to conduct “comprehensive surveys and studies of existing conditions and probable future growth of the municipality and its environs.” Legislative guidelines state that the purpose of the plan is to guide and accomplish “a coordinated, adjusted, and harmonious development of the municipality in accordance with existing and future needs.” The State’s planning laws identify the role of the comprehensive plan as a blueprint for the physical development of

the community and its planning jurisdiction. Additionally, these planning laws govern the general purpose, intent, preparation, and adoption of comprehensive plans. The laws are intended to promote the general health, safety, and welfare of the community as well as efficiency and economy in the development process.

The laws stipulate that the comprehensive plan may include maps, plats, and charts that identify the general location of street, residential and commercial development, and public facilities. Maps and charts may also indicate the future physical layout of the community to identify proposed changes and additions that are expected to occur under the guidance of the comprehensive plan.

Over the years, the broad nature of New Mexico's planning statutes has prompted the state's professional planners to lead efforts in proposing revisions to the laws in order to incorporate the best of current planning practices. Comprehensive plans take a shape and form based on the community's resources, needs and values. As such, no two communities' comprehensive plans are exactly alike.

1. Carlsbad's Planning History

During the 1990s, Carlsbad completed a number of facility plans for both its airport and its water and sewer systems. Carlsbad complies with the state mandate to produce an annual Infrastructure Capital Improvements Plan (ICIP), and has formed a citizens committee to oversee a Parks and Recreation Master Plan.

The Carlsbad Department of Development (CDOD), a private non-profit organization, initiated the existing 20-year comprehensive planning process at the behest of the City of Carlsbad and Eddy County. Phase One of the planning process started in 1997 with the creation of \$1.5 million Cooperative Geographic Information System, a joint City-County endeavor whose efforts included in part an initial land use survey of incorporated areas of Carlsbad.

CDOD has been involved in other planning efforts, especially in the areas of economic development. The agency was awarded a \$150,000 grant from the US Commerce Department Economic Development Administration (EDA) to boost business and job growth in the region by aiding in the development of a feasibility study for the redevelopment of a 30-acre brownfield site located on property owned by the Burlington Northern Santa Fe Railroad in Carlsbad. This area is now known as the Cascades.

CDOD also coordinated a study funded by the US Department of Energy and the State of New Mexico entitled, "Economic Development Strengths, Weaknesses, Opportunities, and Threats Assessment of South East New Mexico."

A community visioning effort, funded through the Ford Foundation's Rural Community College Initiative, was sponsored by New Mexico State University at Carlsbad in September 2000 as a way to involve the community in identifying areas and means for improved quality of life in Carlsbad. Priorities and recommendations from this effort guided Eddy County's policy choices and contributed to the October 2008 county comprehensive plan prepared by Sites Southwest.

In 2008-2009 Carlsbad undertook an affordable housing study with Sites Southwest, a community planning and landscape architecture firm. The resulting Carlsbad Housing Analysis and Strategic Plan quantified housing needs in the area and set forth achievable actions to improve the availability of housing.

Not long afterward, the City worked with the same firm and the Carlsbad MainStreet organization to produce a Downtown Master Plan. The plan took advantage of newly renovated hospitality and entertainment venues as well as streetscape improvements to direct visitors to the often by-passed historic Downtown core.

For more details of Carlsbad's planning history, please refer to the Appendix.

B. Planning Carlsbad's Future

The current efforts to plan for Carlsbad's future began with Mayor Dale Janway's appointment of citizens to a Long Term Planning Committee (LTPC) in 2010. Shortly thereafter, the City hired Sites Southwest to update the Strategy 2020 Comprehensive Plan. While the LTPC concentrated on public outreach and an on-line survey to elicit citizen opinions and vision for the future, the consultants focused on updating data and City accomplishments since the previous plan was completed. Both the LTPC report and the Infrastructure Capital Improvements Plan project list were used to inform the goals and strategies of the updated Comprehensive Plan: Strategy 2030. More detail about the LTPC's efforts can be found in the Appendices.

1. Planning Authority and Planning Area Boundaries

The City of Carlsbad Council, the governing body of the City of Carlsbad, has the authority to adopt plans for the physical development of areas within the municipality's Planning and Platting Jurisdiction (PPJ), which extends to five miles outside of the city's municipal boundaries. Within this jurisdiction, municipalities are empowered by state statute (Section 3-19-5 NMSA 1978) to plan, review and approve subdivisions within unincorporated areas of the surrounding counties. Within this area, the City and County exercise simultaneous subdivision review, each according to its own

subdivision ordinance as guided by state statutes. Eddy County also retains primary authority for zoning and regulation within the PPJ, although the County has not adopted zoning for the area.

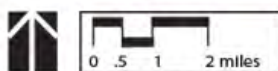
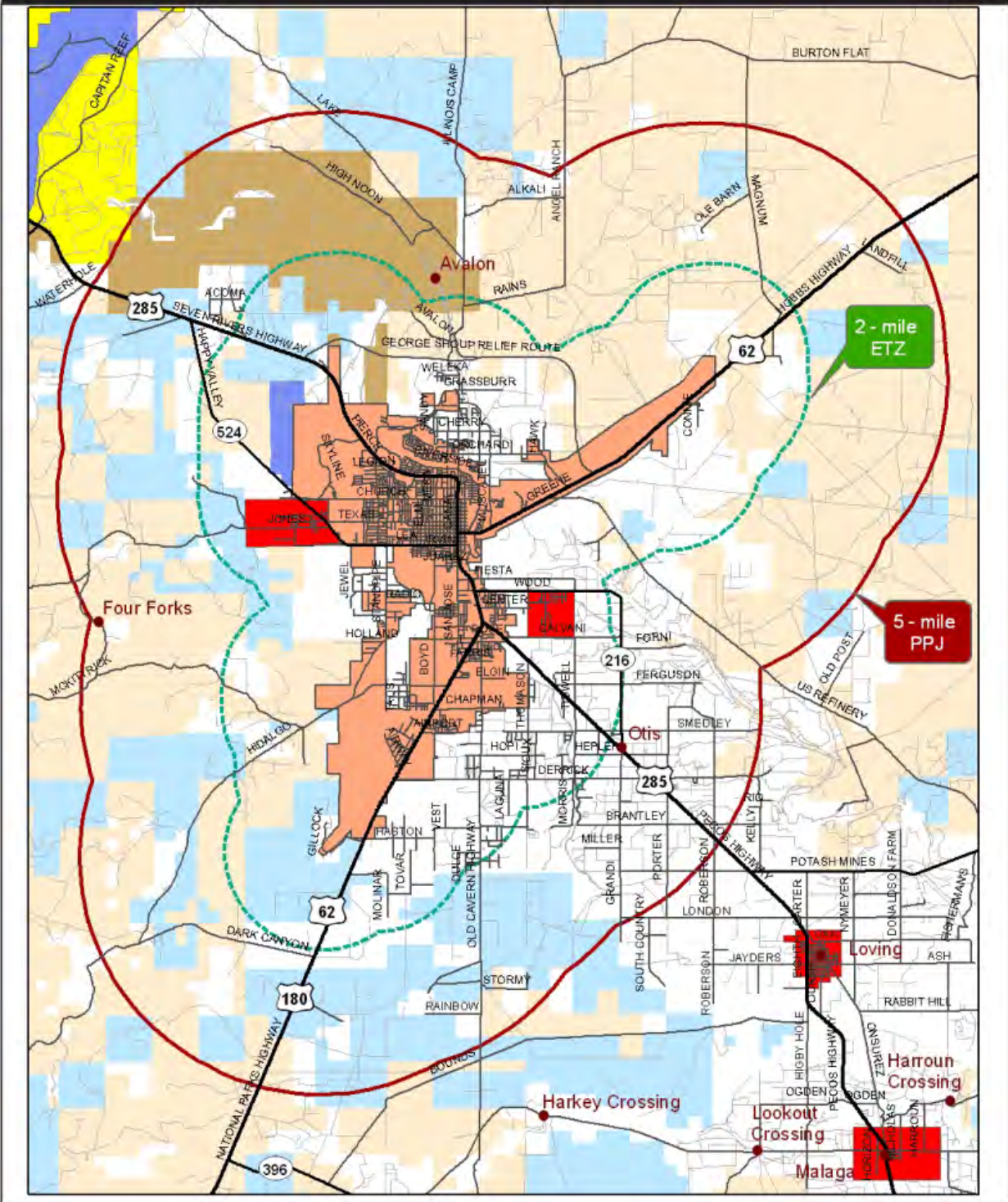
The City of Carlsbad and Eddy County have not entered into a joint powers agreement to establish an extraterritorial authority. They are empowered to do so under Section 3-2102.B (6) NMSA, and they may decide to do so as part of implementing this Plan. If they did establish such an authority through a joint powers agreement and adopt the necessary County and City ordinances, the two governments would share authority for planning, subdivision and zoning within the extraterritorial zone (ETZ). The two governments would then appoint commissioners to an ETZ Commission that would recommend policies and develop controls for land use in the area. The commission would also oversee future development of the area to ensure its compatibility with local plans, policies and ordinances for the ETZ.

The City of Carlsbad is surrounded in part by public lands managed by the US Bureau of Reclamation, the Bureau of Land Management, the State of New Mexico Commissioner for Public Lands (also known as the State Land Office), and the US Forest Service. The City of Carlsbad and Eddy County possess limited jurisdiction over state and federal lands when concerns of health, safety and welfare are in question.

Figure 1 shows the City of Carlsbad's municipal limits, the two-mile extraterritorial zoning (ETZ) boundary, the five-mile planning and platting jurisdiction (PPJ), and the boundaries of public lands in the vicinity.

Figure 1. Carlsbad Extraterritorial Boundaries

March 27, 2012



Source: City of Carlsbad, Eddy County GIS

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

LEGEND

- | | | |
|----------------------|-----------------------|---------------|
| Carlsbad City Limits | State Game & Fish | State Parcels |
| Colonias | Bureau of Land Mgmt | State Park |
| Private Parcels | Bureau of Reclamation | |

Prepared by:



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Chapter 2:

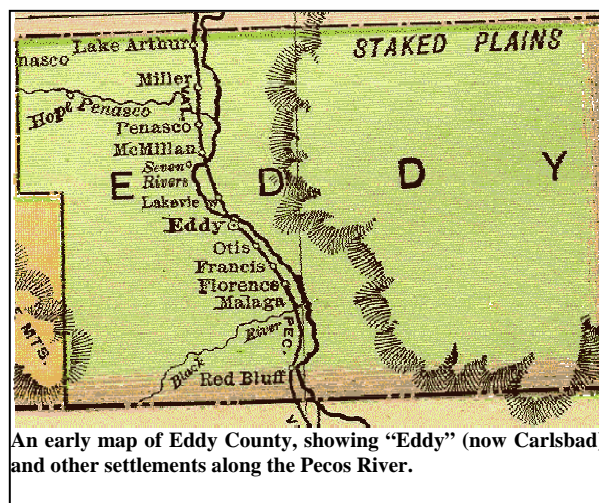
Community Profile

A. Carlsbad's History

From the arrival of Europeans in New Mexico until the second half of the 19th century, southeastern New Mexico was largely the land of the Comanche and Mescalero Apache. During the Spanish Colonial, Mexican, and Territorial periods, trade routes that would make Albuquerque and Santa Fe prosper largely by-passed the Middle Pecos Valley at the northern edge of the great Chihuahuan Desert.

Following the Civil War and the advent of a US military presence in the southwest, Texas cattlemen attempted to graze cattle in the area. In 1866 Charles Goodnight and Oliver Loving established a route up the Pecos from Texas to Wyoming, the Goodnight-Loving Trail, and by 1867 John Chisum had driven herds into the area that today is Eddy County.

In 1884, New Yorkers Charles B. and John Eddy formed a livestock company with Amos Bissell to operate in southeastern New Mexico. One of their first ventures was the Halagueno Ranch, which covered the area from Seven Rivers to La Huerta, NM. In 1887, Charles B. Eddy built the Halagueno diversion ditch on the Pecos River, three miles above the later site of Avalon Dam, and incorporated the venture as the Pecos Valley Land and Ditch Company. He sought funds from a Swiss bank to attract European settlers to the clean air and sunny climate. By late 1888 Eddy teamed with Pat Garrett, of Billy the Kid fame. Grandiose plans to irrigate half a million acres through water projects (including a system dams and a flume to transport water over the Pecos) were seen by Eddy as vital to attracting settlers to the treeless desert. Charles Greene joined with Eddy to create a system of canals and flumes for diversion of water to their properties. Greene secured potential investors from the east, including Robert W. Tansill, manufacturer of the Punch five-cent cigar. Eddy and his partners laid out plans for a new



An early map of Eddy County, showing "Eddy" (now Carlsbad) and other settlements along the Pecos River.

town on the south bank of the Pecos River, which was incorporated as the Town of Eddy on September 15, 1888.

In 1889, the first school in Eddy opened on South Main with 35 pupils. In 1890, the Witt brothers completed construction of a wooden flume near Eddy for irrigation, and the county seat moved from Seven Rivers to Eddy. In the same year, the bridge over the Pecos River at Greene Street was completed, and Avalon Dam and its attendant canal system were constructed. On January 10, 1891, the first railroad train arrived in Eddy on the newly completed line from Pecos, Texas.

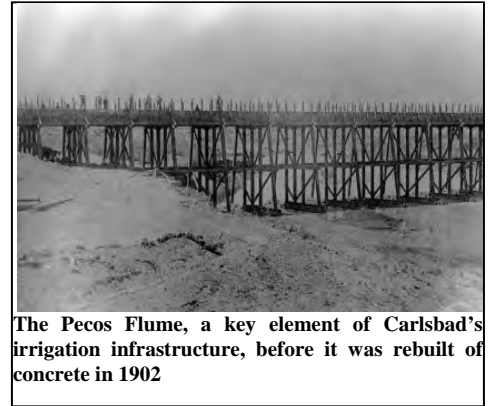
By a vote of 83-43, city residents voted to rename their community Carlsbad, after the famous European health resort, Karlsbad, Bohemia (now the Czech Republic) in 1899. The general content and related healing properties of the water in the two cities, continents apart, were virtually identical.

The Pecos Flume, one of the most impressive structures in Carlsbad, was rebuilt with concrete following the 1902 flood. The concrete aqueduct is Carlsbad's own "Believe It Or Not" entry: the river that crosses itself. Originally built of wood, the flume, at the time of reconstruction, was the largest concrete structure in the world. It is still in use, carrying Pecos River water from Lake Avalon across the river.

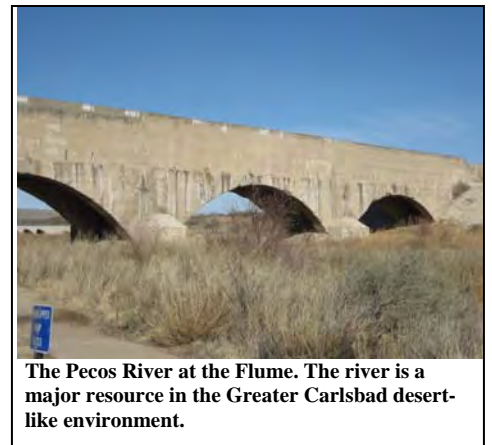
Despite the setbacks caused largely by flooding (the Pecos would flood more than 12 times between 1888 and 1907 and disastrously in 1893 and 1904), city leaders convinced the US Department of the Interior's new Bureau of Reclamation to initiate the nation's second reclamation project in Carlsbad. In 1907 the Bureau rebuilt a system of dams and canals that irrigated 25,000 acres of previously unfarmed land, a far cry from Eddy's plan's to irrigate half a million acres, but enough to sustain the young community. A year later a road to El Paso was built, and an airport followed in 1926. During World War II, the airport would be improved as Carlsbad Army Air Field, a site for Army Air Corps glider training.

Carlsbad Caverns, outstanding and diverse mineral formations that occur in a network of more than 80 limestone caves, began capturing the imaginations of early residents in the early 1900s. The geological formations quickly began to draw visitors. President Calvin Coolidge named the Caverns a national park in 1930, preserving its beautiful formations for posterity. The park contains 83 separate caves within a Permian-age fossil reef, including the nation's deepest and third longest at 1,597 feet. At 14 acres, with a ceiling up to 250 feet high, the Big Room is one of the largest cave chambers in the world.

Additional recreational sites and natural environments in the area have been preserved through federal and state action. Living Desert Zoo and Gardens State Park was established in 1971 and the Guadalupe Mountains National Park in 1972.



The Pecos Flume, a key element of Carlsbad's irrigation infrastructure, before it was rebuilt of concrete in 1902



The Pecos River at the Flume. The river is a major resource in the Greater Carlsbad desert-like environment.

Brantley Dam, north of Carlsbad, was finished in 1988 at a cost of \$250 million. The dam harnesses the Pecos to reduce the incidence of flooding. Brantley State Park quickly became one of New Mexico's newest recreation areas, providing a place to fish and enjoy other water sports. The visitor center includes historical exhibits about the "wild west" town of Seven Rivers.

Recent Carlsbad history has been dominated in part by WIPP, the Waste Isolation Pilot Plant. The WIPP project stems from America's post-World War II effort to develop nuclear weapons. Solutions for disposing of the resulting waste products began as early as 1955 with US Atomic Energy Commission studies. In 1970, scientists selected a salt mine near Lyons, Kansas, and tested it, but in 1972 decided it was inadequate. In 1975 a test bore was drilled in Carlsbad, largely as the result of lobbying by Joe Gant, a Carlsbad state senator. WIPP is the nation's first facility to permanently dispose of transuranic waste in deep underground vaults. The project created new jobs in Carlsbad and attracted a new generation of educated residents to the area. Congress authorized WIPP in 1980, and excavation began in 1982. By 1988, seven rooms of a vast 2,150-foot-deep subterranean network had been dug. The first barrels of waste arrived in 1998.



WIPP facilities outside Carlsbad

B. Geography

The City of Carlsbad, the seat of Eddy County and its largest community, is located in southeastern New Mexico in the Pecos River Valley about 25 miles north of the Texas border. The community is east of the foothills of the Guadalupe Mountains (at the southernmost part of the Rocky Mountain chain), and at the northern and eastern edge of the Chihuahuan Desert.

The Chihuahuan Desert covers more than 200,000 square miles and is the largest desert in North America, with portions extending into parts of New Mexico, Texas and sections of southeastern Arizona. Its minimum elevation is above 1,000 feet, but the vast majority of this desert lies at elevations between 3,500 and 5,000 feet. Carlsbad is situated at an elevation of 3,100 feet.

Winter temperatures are cool, and summer temperatures are extremely hot. Most of the area receives less than 10 inches of rainfall yearly. Carlsbad receives somewhat more, getting over 15 inches of rainfall. While some winter rain falls, most precipitation occurs during the summer months in the form of monsoons. This desert covers such a large area that it is difficult to characterize its geology, but limestone and calcareous soils are common.

Like the Great Basin Desert, this is a shrub desert, but the biological diversity of perennial plant life is relatively low. Yuccas and agaves, growing with grasses and often Creosote Bush, give this desert its characteristic appearance. Prickly Pear and Mormon Tea are also prevalent. Tarbush is sometimes a dominant shrub. Honey Mesquite



Summer rain in the Chihuahuan Desert

grows along washes and playas. Whitethorn Acacia, Allthorn and Ocotillo are other large, conspicuous plants of the Chihuahuan Desert.

Carlsbad is somewhat isolated. The nearest incorporated communities, Loving and Artesia, are approximately 35 and 36 miles away, respectively. The nearest metropolitan area, El Paso/Juarez on the Texas-Mexico border, is 166 miles to the southwest. The Midland/Odessa, Texas metropolitan area is 164 miles to the southeast. Las Cruces, New Mexico is 210 miles to the east, and Albuquerque, New Mexico's major metropolitan area, is 277 miles to the northwest. The state capital, Santa Fe, is 268 miles due north. Carlsbad's vicinity is shown in Figure 2.

Table 1. Distance of Carlsbad From Other Cities

	Distance from Carlsbad (miles)
Roswell	76
Hobbs	70
Santa Fe	268
Albuquerque	277
El Paso	166
Midland	164
Dallas/Ft. Worth	474

Figure 2. Vicinity Map



C. Local Government

1. The City of Carlsbad

The City of Carlsbad is an incorporated city within the State of New Mexico. Its municipal charter grants it broad powers of self-government, which include a wide range of activities permitted under New Mexico's constitution and the laws of the State of New Mexico. Carlsbad uses a hybrid manager/council form of government in which the Mayor is a member of the governing body, the City Council. The City Manager, who is appointed by the Mayor with the approval of the Council, is responsible for the day-to-day operations of local government. The Mayor is the chief executive officer of the city and is elected in non-partisan local elections. The Mayor presides over Council meetings, but can only vote in the event of a tie. The Mayor appoints the members of the City's boards and commissions, again with the approval of the City Council. In addition to the Mayor, the Council consists of eight city councilors, two per ward.

The City Council enacts by ordinance the administrative structure of the City, which includes City departments and their respective functions. The City Manager, subject to the approval of the governing body, appoints department directors. All staff direction from the Mayor and the City Council is conducted through him or her.

Among the City Manager's principal duties are the preparation of the City's annual budget and its five-year infrastructure Capital Improvements Plan (ICIP), which is submitted to the City Council for approval. All municipal budgets must be submitted to the state's Department of Finance Administration (DFA) for approval prior to the beginning of each fiscal year. The ICIP plan must also be submitted to DFA.

In addition to the City Administrator, other important non-elected officials include the City Attorney, the City Clerk, the Municipal Judge (who oversees the Municipal Court that has jurisdiction over City ordinances), the Chief of Police and the Fire Chief. The City Planning Commission, appointed by the Mayor, makes recommendations to the City Council regarding land use, zoning, subdivisions, and other topics.

2. *Eddy County*

Eddy County is an incorporated subdivision of the State of New Mexico. New Mexico law does not enable home-rule county governments. The powers of county government are, therefore, limited to those described either in the State constitution or elsewhere in state law. Like many New Mexico counties, Eddy County uses a combined manager/commissioner form of government. The County Manager is appointed by the County Commission and is responsible for the day-to-day operations of County Government. All county residents, including those who live in incorporated cities, villages, and towns, elect County Commissioners in non-partisan elections. There are five county commissioners, all but one of whom represents a district that includes a portion of the City of Carlsbad. The County Commission appoints members of Eddy County's boards and commissions, including its planning commission.

The County Commission enacts by ordinance the administrative structure of the county. The County Manager, subject to the approval of the County Commission, appoints department directors. All staff direction from the Commission is conducted through him or her.

The County Manager prepares the County's budget and its capital improvements plan, which are also subject to DFA's oversight.

The County Planning Commission makes recommendations to the County Commission regarding the subdivision of land in the county.

D. Socio-Economic Characteristics

Over the past 30 years, the population in the City of Carlsbad has not substantially increased or decreased. Since 1980, the population of the city has remained at about 25,000. This represents a recovery to 1960 levels, after which a period of decline occurred due to contractions in potash mining activities and the closing of US Borax. The 2010 Census count for Carlsbad was 26,138—a 2 percent increase over 2000. This trend is in contrast to the state of New Mexico as a whole, which experienced a 13 percent increase in population over the last census period (2000-2010). Eddy County, although growing at a slower rate than the state, experienced a population increase of 4 percent during the same period. The trend towards faster growth in unincorporated areas of the county parallels city-county population trends in other areas of the state, where cities have been slow to annex faster growing areas. Carlsbad remains the largest incorporated area within Eddy County.

Carlsbad's population, like many rural towns found throughout the country, can be described as one that is "aging in place." This is indicated by an increasing median age and a rise in the 65-and-over age groups. Carlsbad has the largest percentage of residents ages 55 and older in the

region and has a significantly higher percentage of those residents than does the state as a whole (25% compared with 19%). As noted in Table 2, the median age in Carlsbad was 39.4 years in 2010, which is higher than both the state and Eddy County. Nearly 16 percent of Carlsbad's population was 65 and older in 2010. A rise in the over-65 population is expected nationally, with the majority of Baby Boomers reaching retirement over the next 10 to 15 years, and is likely to continue to be reflected in local demographics.

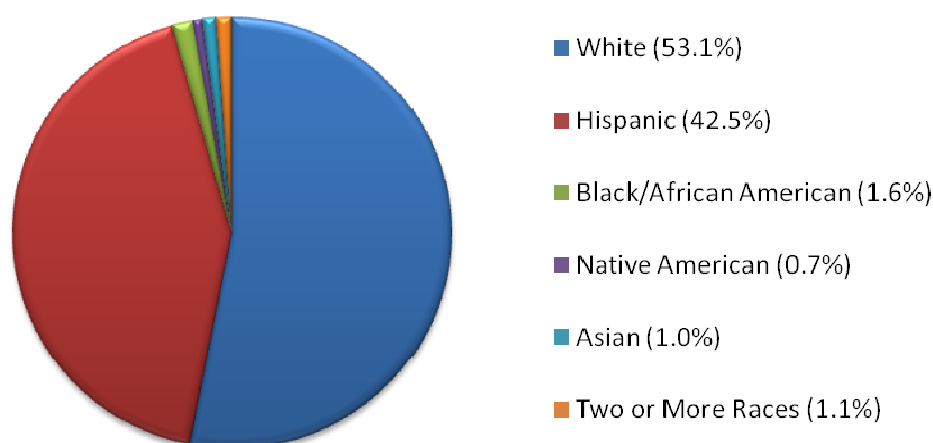
Table 2. Comparison of Median Age 1990-2010

	1990	2000	2010
Carlsbad	35.1	37.7	39.4
Eddy County	33.4	36.4	38.5
New Mexico	31.2	34.6	38.0

Sources: 1990, 2000, and 2010 US Census Data

According to Census data, the population in Carlsbad also experienced an increase in racial/ethnic diversity between 2000 and 2010. Figure 3 shows a breakdown of Carlsbad's population by race and ethnicity in 2010. The largest percentage of the population was non-Hispanic White (53.1%) followed by Hispanic or Latino (42.5%). By contrast, non-Hispanic whites made up 58.8 percent of the population in 2000 while Hispanic or Latinos constituted only 36.7 percent.

Figure 3. Carlsbad Population by Race and Ethnicity, 2010



According to population projections, Carlsbad's population is expected to grow slowly over the next 30 years. Figure 4 shows three different high and low population projections to 2030. Carlsbad's slow projected population growth is a result of its boom and bust economic activity and a projected

decline over time in mining and other extractive-based industries such as oil, gas, potash and other mining. As these industries decline, the service sector will make up a larger percentage of employment.

These projections do not take into account anticipated growth in nearby areas of unincorporated Eddy County, however. Because of the geography of census blocks in the area, it is difficult to determine the location of that population increase. As the county's major population center, Carlsbad would benefit from a portion of the increase if growing adjacent areas were annexed.

Figure 4. Carlsbad Population Projections to 2030

Year	Population Utilizing the Eddy County 40-Year Water Plan	Population Utilizing the 2003 Comprehensive Master Plan -Linear Trend Equation	Population Utilizing the 2003 Comprehensive Master Plan - Regression Model
2010	29,794	27,550	30,321
2030	34,237	27,812	34,715

The City evaluated the three population projection methods and elected to use the projections associated with the Eddy County 40-Year Water Plan for the Comprehensive Plan.

Source: City of Carlsbad Water Master Plan and Hydraulic Model, Volume 1, 2010

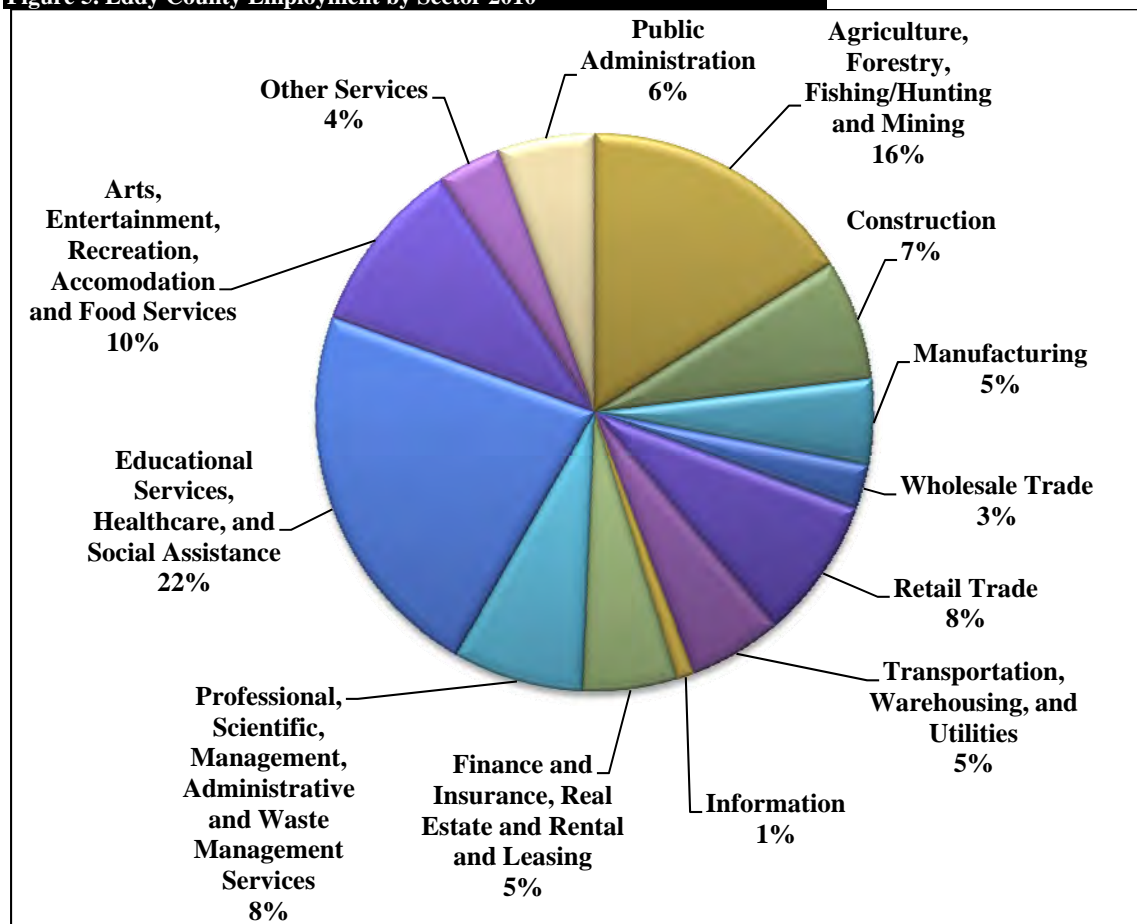
1. County Employment

A large percentage of the Eddy County's commercial and retail service businesses are located in the City of Carlsbad. This lends overall stability and economic strength to the city's economy. According to the most recent economic data for Eddy County, the industries with the greatest number of jobs were mining, health care, retail, and accommodation and food services, with the bulk of mining workers engaged in oil and gas and potash production. The major health care industry employers in Eddy County are Artesia General Hospital, Carlsbad Medical Center, Guadalupe Medical Center, and Loving Health Clinic. Agriculture, while accounting for a smaller employment share than the industries mentioned above, nonetheless represents an important segment of the area economy. According to USDA 2009 cash receipts data, Eddy County ranked sixth for crops and seventh for livestock among all New Mexico counties.

Carlsbad had an average unemployment rate of 4.2 percent in 2011, while Eddy County's average unemployment rate was 4.1 percent in 2011 (NM DOL, 2011). Both of these were substantially lower than the 6.7 percent average unemployment rate in the whole of New Mexico in 2011.

Per capita income also tends to be higher than the state average. The per capita income for Eddy County in 2010 was \$38,731 compared with \$33,368 for the State of New Mexico (US DOL). Figure 5 shows the composition of Eddy county employment in 2010.

Figure 5. Eddy County Employment by Sector 2010



Chapter 3:

Land Use

The Land Use element is the central part of the comprehensive plan. It provides the framework for determining how and where the community will grow and change over the next 20 years. Land use policies and objectives, if properly implemented, can help create a better and more livable community.

The first portion of the Land Use element describes how the community looks today in terms of current land use and recent development patterns. The first section also analyzes current socio-economic conditions in order to determine the expected amount of land to be consumed in the future. The second section briefly describes the future land use scenario chosen by the community. The third section identifies community goals and objectives related to land use, which are used to guide overall future land use decisions.

A. Existing Conditions

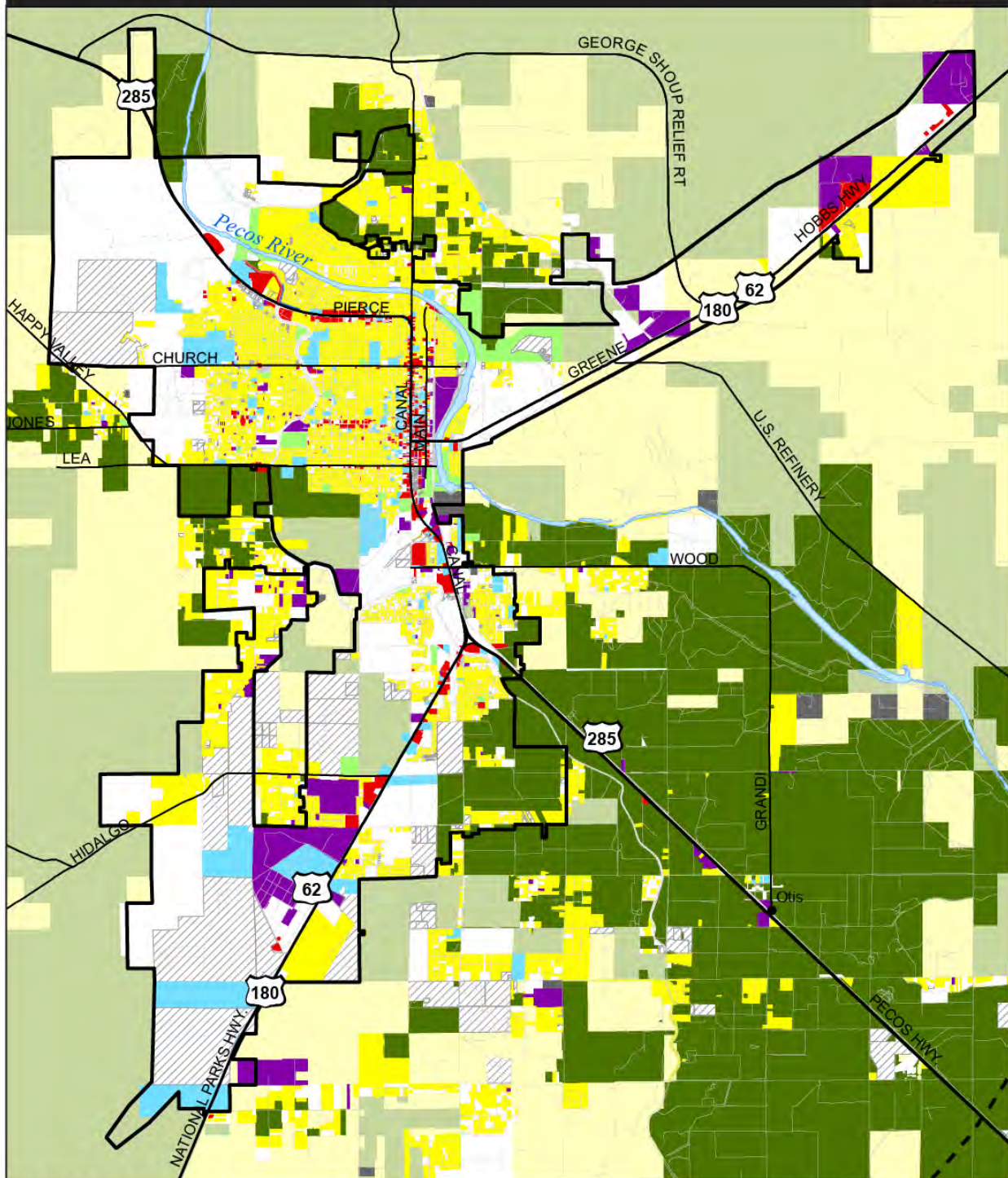
The following sections summarize the important findings from the analysis of existing land use and recent development patterns.

1. Current Land Use

When analyzing current land use, it is important to distinguish among several different geographic areas. The first area includes the entire study area, referred to here as the Greater Carlsbad Planning Area. The planning area is defined as land within the City of Carlsbad and up to five miles outside of the municipal limits into Eddy County, as shown in Figure 1 earlier in the report.

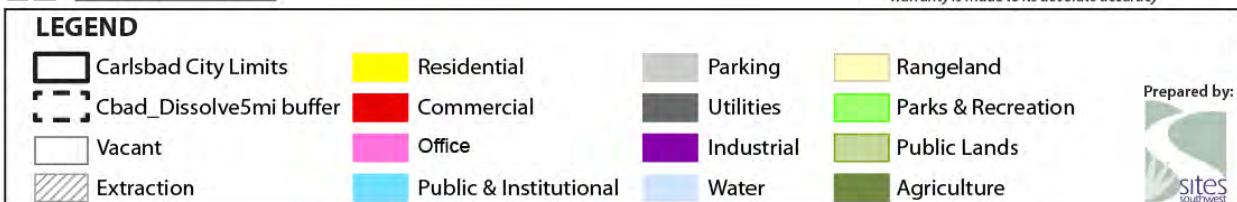
Figure 6. General Land Use Map

August 28, 2012



Source: City of Carlsbad, Eddy County GIS

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



Approximately 61 percent of the land in the planning area consists of public lands/open space, held by the state and federal government. The second largest land use in Carlsbad is agricultural cultivation and livestock rangeland at 27 percent. These percentages illustrate the highly rural and undeveloped nature of the study area as a whole.

Most of the urbanized areas of the planning area are within the municipal boundaries of the City of Carlsbad. Carlsbad developed along traditional American County Seat models, with a gridiron street pattern (the ordered arrangement of streets intersecting at right angles) and a centrally located courthouse square. The degree of compactness has diminished in recent times as development has pushed the community outward, especially along major highways and arterial roadways.

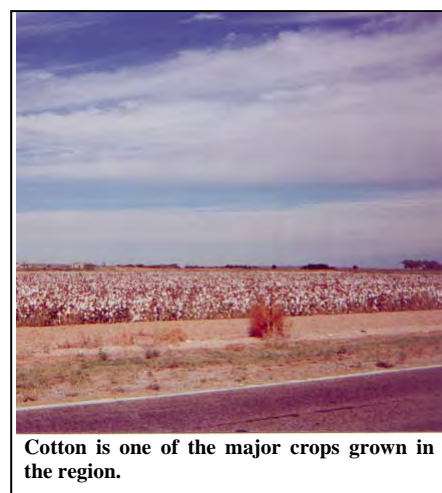
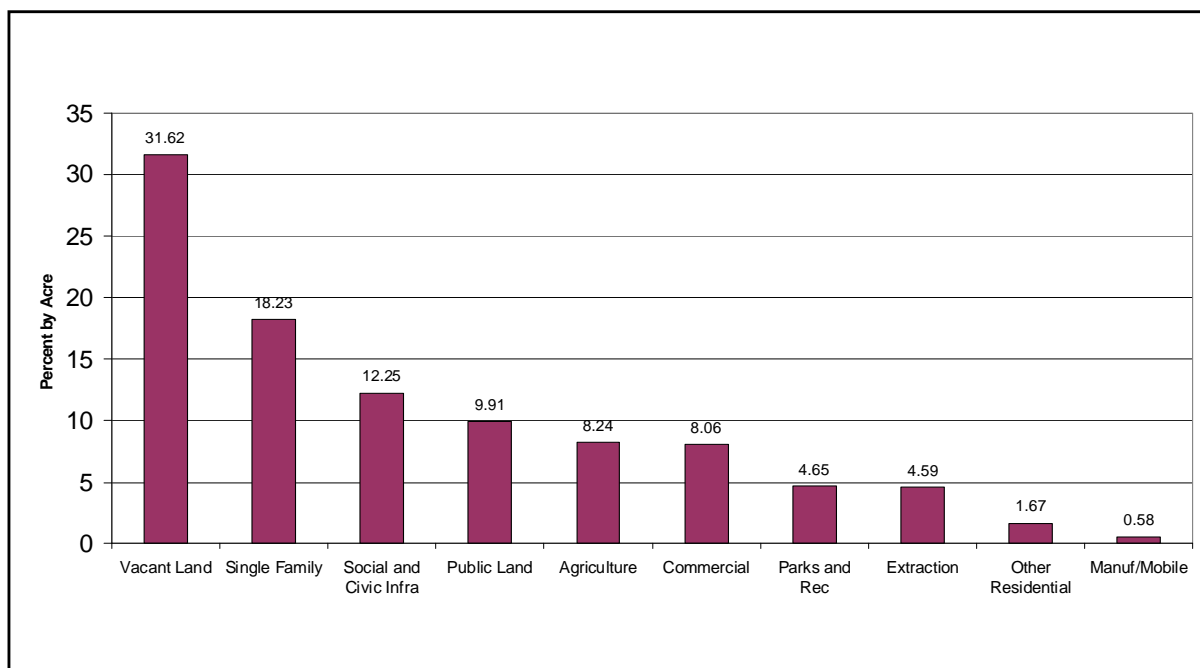


Figure 7 categorizes the major land uses within the City of Carlsbad. The majority of land within the city boundary is defined as vacant (32%). The next largest land uses include: single family housing (18%), social and civic uses (12%), public land (10%), agriculture (8%), and commercial (8%).

The current land use analysis shows that the city has not yet reached build out, due to the large amount of vacant land within the city limits. The most urbanized areas are found in the central area of the city limits and west of the Pecos River.

Figure 7. Current Land Use within Carlsbad City Limits



Source: 2010 US Census

Residential areas are located throughout the planning area, while commercial uses are located primarily along major highways and arterial roadways.

2. Current Zoning

Current zoning regulations for the City of Carlsbad were updated and adopted in 2011. The updated zoning code defines seven zoning districts which range from residential to commercial and industrial uses. It also includes a Planned Unit Development District (PUD) that provides for greater flexibility in the design of residential, commercial, industrial, and institutional uses. The official zoning map is depicted in Figure 8.

Carlsbad employs a use-based zoning structure. This form of zoning allows land uses to occur in a particular zone based upon their intensity, or impacts, to surrounding properties. Areas zoned for the lowest intensity uses, for example, allow residential development as well as parks and other institutional uses such as day care centers and schools. Unlike a pyramidal zoning structure, however, where more intensive districts also permit less intensive uses, Carlsbad's more intensive zones do not allow all land uses to take place within them. While this type of zoning generally prevents incompatible land uses from locating near one another, its flexibility also allows for some mixed uses. The code also categorizes uses as permissive or conditional in a particular zone.

In addition to streamlining the number of districts and prescribing permitted uses, the City's new zoning code also includes lighting and landscape requirements and bike/motorcycle parking standards for all permitted uses. Definitions were updated and regulations were added for home occupations and adult uses. To encourage townhouse development, zero-lot line development was added along with reduced setback requirements. Also updated in the 2011 zoning ordinance were detailed application and review processes for zoning requests such as temporary uses.

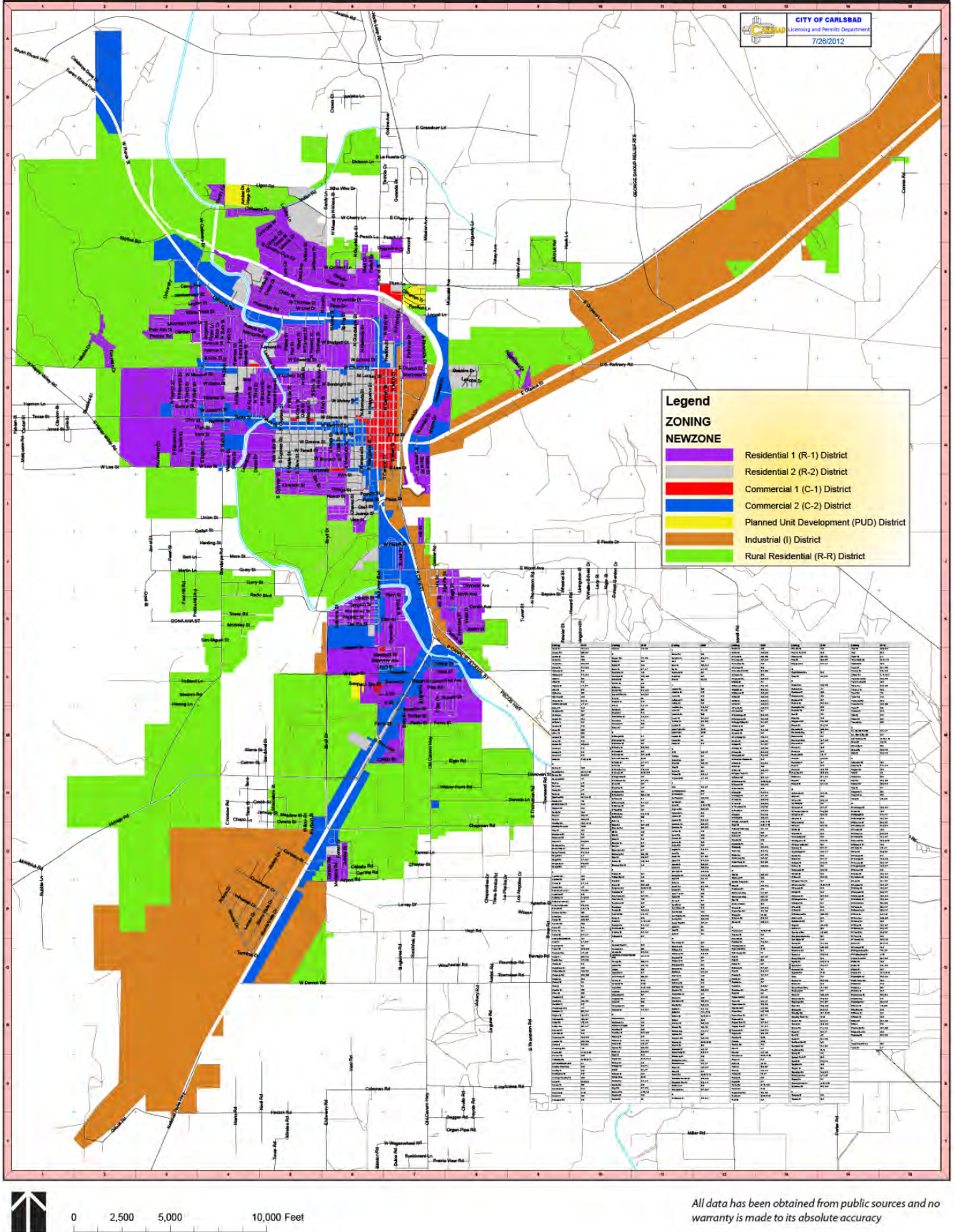
3. Extraterritorial Zoning (ETZ) and Planning and Platting Jurisdiction (PPJ)

Under New Mexico law current at the time, the City of Carlsbad unilaterally adopted zoning within its Extraterritorial Zone in 1977. The City's ETZ boundary is 2 miles from the city limits. Its planning and platting jurisdiction (PPJ) extends to 5 miles outside the city limits.

Within the ETZ, Carlsbad has established three zones: RC-1 (farming, ranching, and most commercial uses), RC-2 (light commercial uses), and RC-3 (primarily residential). Current state law calls for counties and cities to jointly adopt zoning within extraterritorial zones. The establishment of a joint powers ETZ agreement is one potential way to implement this. If such an agreement were entered into, both the City and County would share planning authority, including subdivision and zoning powers within the extraterritorial zone.

Figure 8. Official Zoning Map

7-25-12



4. Subdivision Approval

The City of Carlsbad reviews and approves subdivisions of land within its municipal limits. Within the ETZ, the City and Eddy County simultaneously review and approve subdivisions, each according to procedures set forth in New Mexico statutes. Eddy County reviews and approves subdivisions that are outside the ETZ in unincorporated areas of the county.

At the time this plan update was being drafted, new subdivision regulations were almost ready for adoption. They include an expiration date on preliminary plats, requirements for drainage and grading permits, and a revised method for reimbursing infrastructure costs.

5. Impacts of Socio-Economic Trends on Land Use

The population projections depicted in the Community Profile chapter foresee the city of Carlsbad growing slowly over the next 20 years. Eddy County will grow faster than the city (4% versus 2% over the past decade), but at rates slower than New Mexico as a whole. The focus of the local economy on a handful of economic sectors (principally extraction and agriculture) makes it particularly vulnerable to price fluctuations in commodities markets. Carlsbad has weathered these changes in the past, most significantly from 1960 to 1980 when population first declined and then recovered as a result of changes in mining operations. Greater diversification of the economy and successful realization of economic development strategies could significantly alter this scenario.

Faster growth rates in Eddy County pose important challenges to Carlsbad and Eddy County. The trend may result in more development occurring in unincorporated portions of the planning area in areas adjacent or nearly adjacent to the city. Carlsbad has an interest in controlling the quality of development at its edges and of realizing the benefits of greater numbers of residents who will undoubtedly take advantage of Carlsbad's high quality public services.

6. Recent Development Patterns

Despite the fact that the community has not significantly increased in population over the last 20 years, recent development patterns show that the community has not remained static. Rather, development has shifted from certain areas of the community to other areas, and the city has become more dispersed. The areas gaining new development include those areas located in the northern and southeastern parts of the city, some of which are outside the city limits.

Areas where businesses and residences have left and structures have become abandoned are located primarily in areas of blight and are characterized by deteriorated housing conditions. This is principally



New development on the southern border of Carlsbad

the result of the filtering of dwelling units in the housing market. This process occurs when middle-to-upper income residents move out of aging housing to consume newer housing someplace else in the community. The housing that is left behind then filters down to households with lower incomes. This process continues, eventually leaving dwelling units that are either uninhabitable or fail to attract rents that would pay for their maintenance.

Also adding to this dispersion process is the attraction of living on larger lots, which are often found in areas adjacent to the city's boundary. The periphery of the planning area has an abundance of less expensive land with fewer land use regulations and lower property taxes that further attract residents in search of their own personal open space.

Economic forces outside of the community also influence future land use demands. The trend towards an aging society places different demands on a community, as there are a larger number of retirees who may have preferences and needs for different types of housing and community services.

B. Future Land Use

The Infill/Redevelopment future land use scenario chosen by the community during the previous comprehensive planning process is still favored by the City. In contrast to the trend at the time, the preferred future land use scenario, shown in Figure 9, gives greater weight to developing vacant lots in or adjacent to already developed areas within the city's boundaries, as well as lands located within the existing city sewer and water service areas. Environmental protection was also expanded in the Infill/Redevelopment Scenario to give development priority to lands located outside of the flood zone.

While the map does not show a tremendous increase in land consumption, all future development is located within the city limits. Some of the more specific land use changes illustrated by this scenario are as follows:

Residential development: The orange areas on the Future Land Use Map show where future residential development is projected to go. Development is first allocated to existing residential and already subdivided lands within the city's borders. All of the new residential development can be allocated to vacant areas within the city borders without converting any new land for urban land uses. New residential development is concentrated in several areas of the city, including the northwest, southeast and central portions of Carlsbad.

New development is discouraged from locating heavily on the northeast side of town, as it is on the other side of the river and railroad tracks, and the City currently has no plans to create a bridge

to increase access to this portion of the community (ICIP 2013-17). New development is also discouraged from locating near the airport and industrial areas in the southernmost portions of the community to prevent incompatible residential and commercial uses and buildings from developing in these areas.

Commercial development: The red areas on Figure 9 show where future commercial development is projected to locate. Development is allocated to vacant lands in areas already used for commercial purposes. Due to the small amount of projected commercial development, all of the new development is able to be allocated within the city limits and existing commercial areas. Commercial development is located near major highways, in areas already served by water and sewer.

Policies necessary to carry out the Infill/Redevelopment Scenario include the following:

- The City of Carlsbad will encourage future development to locate within and adjacent to already developed areas within the city's limits.
- The City of Carlsbad will ensure that future development locates in areas served by existing community services and facilities.
- The City of Carlsbad will give priority to improving and maintaining community services and facilities within developed areas.
- The City of Carlsbad will give priority to redeveloping abandoned and blighted areas of the community.

1. Advantages of the Infill/Redevelopment Scenario

Under the Infill/Redevelopment Scenario, new development is encouraged to locate within areas where urban services such as water, sewer, and roads already exist. Maximizing the use of current services and facilities promotes the efficient use of scarce government resources.

This scenario also encourages the improvement and preservation of the existing urban fabric and businesses unique to downtown Carlsbad rather than the development of only generic franchise commercial and retail services seen across most cities in the US. The unique sense of character and place is what helps to draw tourists as well as residents. Moreover, infill and redevelopment strategies help strengthen existing downtown businesses and provide further opportunities for their expansion and the creation of new businesses.

Blighted areas on the city's periphery can also be curtailed from further expansion because there is an economic advantage for development to locate within the city's service area. Developments

that do choose to locate outside but adjacent or near to the city limits are required to meet the City's subdivision standards. This helps curtail rural blight on the city's boundaries and make it financially feasible to annex these areas should the need arise sometime in the future.

The Infill/Redevelopment Scenario also helps promote the general public welfare by using government resources to improve existing neighborhoods, particularly those in poor and deteriorated conditions. This allows existing services to be properly maintained, rather than expending government funds primarily on new infrastructure and expansion of urban services.

This more efficient and compact growth scenario also helps preserve environmental benefits that Carlsbad residents enjoy, such as clean air, water, public parks, open space and trails. Rather than sprawling continuously into the rural landscape, development is encouraged to locate within and adjacent to already developing areas, helping to conserve agricultural lands (and food security) water, and open space.

Despite these benefits, the Infill/Redevelopment Scenario requires a considerable amount of political will and support to carry out. It is typically easier and less costly for developers to purchase large tracts of vacant land for development rather than redeveloping smaller parcels. Constraining the supply of land available for development can raise land and housing prices. This is less likely in Carlsbad, however, which has a large number of vacant lots already located within the city limits. Over the last few years, residential development has occurred in some of these areas, notably to the north and the southeast.

Another potential issue is that existing low income neighborhoods might be displaced by redevelopment, relocating even more residents to less expensive land located on the periphery of the city and in the adjacent county. The impact of this is likely to be negligible, however, as the supply of developable land far exceeds the projected demand within the next 20 years.

Without implementation of the Infill/Redevelopment Scenario, however, residential and employment areas will continue to gradually disperse to new areas both within and outside of the city limits, while older and deteriorating areas will continue to lose population and employment, experiencing increasingly blighted conditions.

C. Issues and Community Suggestions

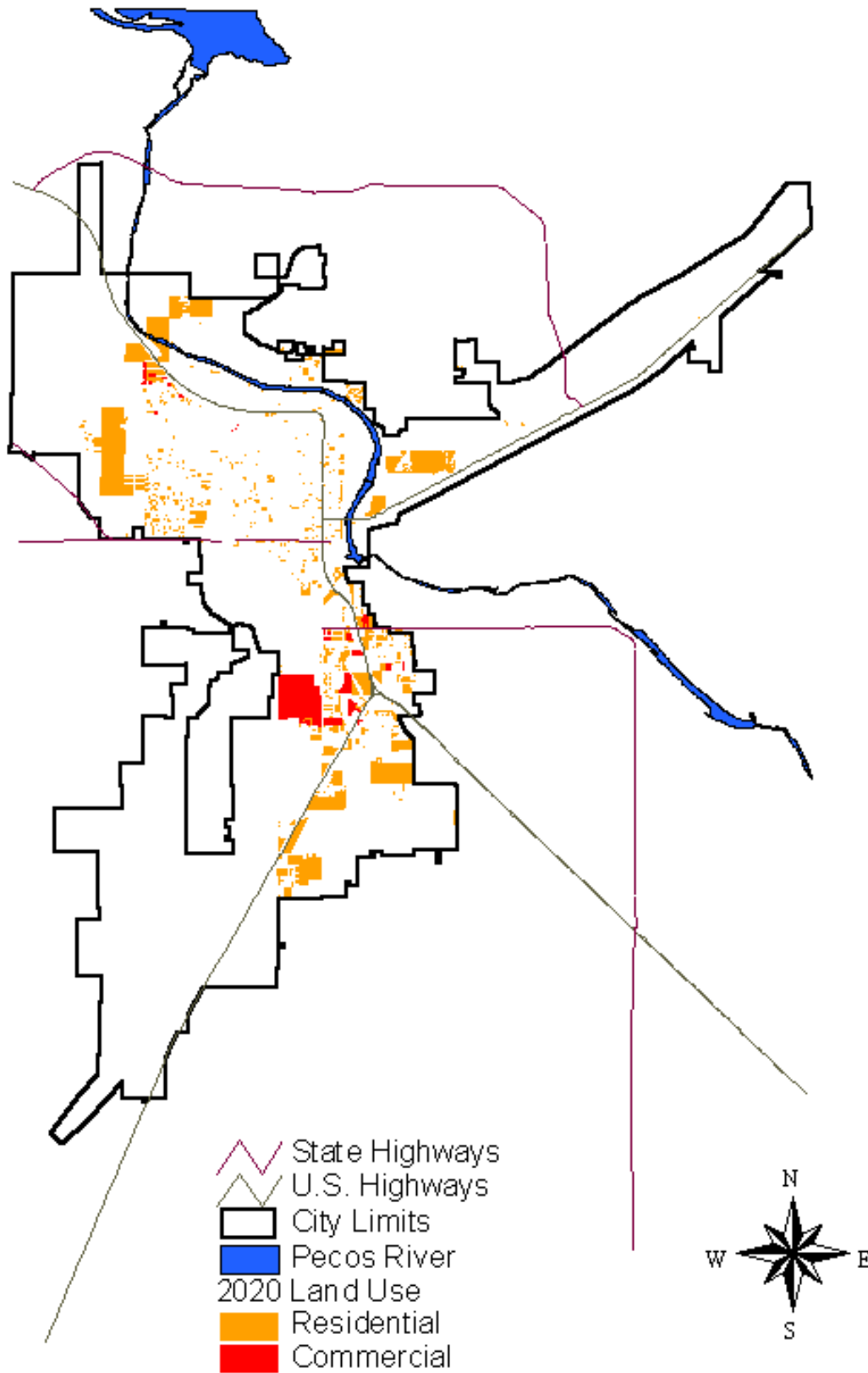
Values help define and explain how the community should make decisions collectively when deciding among various policy alternatives. Community decisions surrounding land use can be especially controversial as our country has historically deeply valued private property rights. These values run particularly deep in the American West, whose residents are often wary of public regulation.

On the other hand, many citizens recognize that uncoordinated and unplanned land use decisions can often result in unattractive and undesirable development that adversely affects property values of nearby land and hinders economic development. A clear theme among citizen recommendations to the recent Long Term Planning Committee was a desire for Carlsbad to become known as a clean, attractive community. Respondents advocated using code enforcement and volunteer clean-up days as well as new landscaping to achieve this.

Aging subdivisions just outside the city's borders are another serious issue. The City of Carlsbad is providing water to residents in several of these subdivisions, such as La Huerta, under a contract agreement. Such urban service agreements, however, only cover the cost of the specific service being provided. They typically do not cover the full cost of operation and maintenance of infrastructure projects over time, nor other urban services such as parks, fire, emergency and library services. When agreements for these other services do not exist, the City bears an increased burden to provide for them with a decreased financial base. The City should seriously consider annexing these areas and charging them appropriate rates for services. Areas with particularly deteriorated conditions, could be designated as Metropolitan Redevelopment Areas, rendering them eligible for various redevelopment incentives.

Another issue is the presence of several antiquated subdivisions in and around the city. At the time of approval, infrastructure was not required to be constructed prior to plat approval. Thus, although these developments are legally platted, they lack infrastructure such as roads, water, sewer and sidewalks.

Figure 9. Greater Carlsbad Future Land Use 2020: Infill/Redevelopment Strategy



D. Goals and Strategies

The following section identifies broad goals and strategies that the community should follow when making future land use decisions.

Goal 1. The City of Carlsbad will adopt policies to support the Infill/Redevelopment Land Use Scenario.

- Strategy a. Ensure sufficient land is zoned for diverse uses within the existing city limits.
- Strategy b. Encourage future development to locate within and adjacent to already developed areas within the city limits.
- Strategy c. Encourage a mix of land uses in the same area so that residents are within walking distance of some commercial and retail businesses as well as schools, parks and other community facilities.
- Strategy d. Prioritize the improvement and maintenance of community services and facilities within developed areas.
- Strategy e. Give priority to redeveloping abandoned and blighted areas of the community through incentives and streamlined processing.
 - Consider designating appropriate areas as Metropolitan Redevelopment Areas, making them eligible for financial incentives.
- Strategy f. Provide incentives to encourage new businesses to locate in areas favored for future commercial development.
- Strategy g. Prioritize providing adequate infrastructure and servicing antiquated subdivisions in and around the city.
- Strategy h. Prevent development around the airport that would be incompatible with its future expansion plans.



**Development along the Pecos Riverfront
(Pecos River Valley Conference Center)**

Goal 2. The City of Carlsbad will make efficient use of government resources through well-planned land use decisions.

- Strategy a. Encourage development to occur in areas where City services such as water and sewer are already provided.
- Strategy b. Use the investment in major public works projects to help determine the location and timing of new development.

- Strategy c. Coordinate the provision of community facilities and services among City departments.
- Strategy d. Ensure that urban services agreements with developments in the county include the full costs of the services provided (such as maintenance and replacement costs) or require annexation as a condition of receiving City services.
- Strategy e. Ensure that development outside the city limits meets strict subdivision regulations that would make it financially feasible to annex them in the future, if necessary.
- Strategy f. Employ a full-time staff person to provide geographic information system (GIS) services and mapping.

Goal 3. The City of Carlsbad will cooperate with Eddy County to influence and shape development in the county that is adjacent to the city's border.

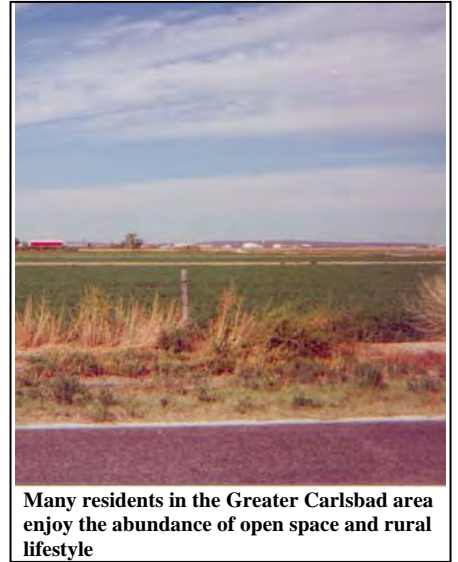
- Strategy a. Establish a joint powers agreement with Eddy County to ensure that subdivision standards for developments adjacent to the city are consistent with City standards.

Goal 4. The City of Carlsbad will strive to create an aesthetically pleasing built environment.

- Strategy a. Reduce the number of blighted and abandoned buildings and signs through rehabilitation or demolition.
- Strategy b. Strictly enforce building codes and nuisance ordinances.
- Strategy c. Encourage development to follow building design standards for landscaping and signage.
- Strategy d. Encourage community redevelopment along the Pecos riverfront and within the Carlsbad MainStreet District.

Goal 4. The City of Carlsbad will ensure that land use does not negatively impact the city’s environmental resources.

- Strategy a. Protect water quality resources by enforcing existing well field protection regulations.
- Strategy b. Protect water quality resources by discouraging developing from locating within the floodway and near flood zones.
- Strategy c. Protect wildlife and water quality by maintaining riparian habitat found along the river.
- Strategy d. Investigate options to harvest storm water to irrigate public landscapes and recharge the aquifer.
- Strategy e. Protect water resources by requiring water conservation techniques for all new developments.



Many residents in the Greater Carlsbad area enjoy the abundance of open space and rural lifestyle

Chapter 4:

Housing

The Housing element of the comprehensive plan is intended to provide direction to the City of Carlsbad and to Eddy County on the provision of adequate and affordable housing and equal housing opportunities for all residents of Greater Carlsbad.

Housing and neighborhoods play an integral role in establishing Carlsbad's community, both now and in the future. Housing improvements were noted as a high public priority based on the survey conducted by the Carlsbad Long Range Planning Committee. The public also wishes to attract young adults to Carlsbad, which will depend on the availability of adequate housing, jobs and community amenities.

Since the last Comprehensive Plan, the City of Carlsbad has undertaken various efforts to directly and indirectly increase the provision of local housing. These include:

- Completion of the Greater Carlsbad Housing Analysis and Strategic Plan (2009), which analyzed housing affordability and availability and put forth specific goals, policies, action steps and priority housing projects.
- Completion of the Carlsbad MainStreet Downtown Master Plan (2010), which addressed improved amenities for long-term economic growth.
- Revising the Subdivision and Zoning Ordinances to facilitate infill development.
- Creation of an infrastructure reimbursement program to defray development costs in Carlsbad.
- Funding water and wastewater infrastructure improvement projects to support future housing development.
- Expansion of permitting and inspection services to include building, mechanical, plumbing, and electrical.

A. Existing Conditions

There are several sources of housing data for the City of Carlsbad. The 2010 Census Bureau provides information about the total number of housing units and their occupancy status, while the 2008-2010 American Community Survey 3-Year Estimates provide additional details about select housing characteristics. A windshield survey conducted from 1998-2001 evaluated housing conditions at the parcel level. Finally, the Greater Carlsbad Housing Analysis and Strategic Plan examined housing affordability for owners and renters, and identified barriers to housing development in the Carlsbad area and recommendations to overcome them.

1. *Housing Characteristics*

As of 2010, there were 11,243 total housing units in Carlsbad. Of those, 91.2 percent (10,257) were occupied. Owner-occupied housing made up a majority of occupied units (70.1% or 7,195 units), while rentals constituted the remainder (29.9% or 3,062) (US Census Bureau, 2010 Census).

The number of units per building is shown in the table below. As shown, single-family detached units make up the bulk of housing options in Carlsbad (77.7%), multifamily units account for 13.0 percent, and mobile homes make up 5.5 percent.

Table 3. Units in Structure

	% Total
Single family unit detached	77.7%
1-unit, attached	2.4%
2-4 units	4.7%
5-9 units	1.7%
10-19 units	2.7%
20+ units	3.9%
Mobile home	5.5%
Boat, RV, van, etc.	1.3%

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

2. *Housing Quality*

The age of housing units and the condition (based on the windshield survey) help determine the overall quality of housing in Carlsbad.

Table 4 shows the years Carlsbad housing units were built. Over 60 percent of the housing stock was built before 1970. Less than 6 percent was built during the 1990s, and less than 4 percent was built since 2000.

Table 4. Year Structure Built

	% Total
Built 2000 or later	3.9%
Built 1990 to 1999	5.8%
Built 1980 to 1989	12.3%
Built 1970 to 1979	15.7%
Built 1960 to 1969	20.7%
Built 1950 to 1959	25.3%
Built 1940 to 1949	11.3%
Built 1939 or earlier	5.0%

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

The aging housing stock contributes to the overall condition of housing in Carlsbad. During 1998-2001, a parcel-level housing condition assessment survey within the five-mile planning and platting jurisdiction of the City of Carlsbad was completed. A total of nine townships were addressed in whole or in part.

Dwelling units were rated by an observer for condition as follows:

- Good – understood to be housing of any type whose exterior appearance gave the impression of a new or well-maintained property.
- Fair – understood to be housing of any type whose exterior appearance gave the impression that some maintenance of the property had been deferred, but that the property as a whole was entirely habitable.
- Poor – understood to be housing of any type whose exterior appearance gave the impression that most maintenance had been deferred and that the property would support human habitation with a minimum level of comfort.

The results were classified by housing type and are shown in Table 5.

Table 5. Housing Condition

Windshield Survey	Percentage of Units by Type and Condition			
	Total Units	Good	Fair	Poor
Single family, Site Built, No Farming	10,979	73.8%	19.5%	6.7%
Duplexes	146	80.1%	15.1%	4.8%
Manufactured Housing Outside of a Park	611	43.7%	31.8%	24.5%
Manufactured Housing Within a Park	22	22.7%	40.9%	36.4%
Multifamily Housing	189	52.9%	39.7%	7.4%
Assisted Living/Group Homes	12	100.0%	0.0%	0.0%
Farm Residences	294	58.8%	32.0%	9.2%

Source: City of Carlsbad Planning and Zoning Department, 2001

In total, 71.6 percent of all units were in good condition, 20.6 percent were in fair condition and 7.7 percent were in poor condition. As

shown above, certain types of units suffer disproportionately from poorer quality, particularly manufactured housing, multifamily housing and farm residences.

Furthermore, poor and fair quality housing is concentrated in certain parts of the planning area. Figure 10 depicts the geography of housing quality. It shows areas where more than 50 percent of the housing units are in fair or poor condition and areas where more than 10 percent of the housing areas are in poor condition. The areas where fair and poor housing predominate are all located in the southwest and southeast quadrants of the planning area.

B. Issues and Community Suggestions

1. Housing Affordability and Availability

The Greater Carlsbad Housing Analysis and Strategic Plan (2009) explored the issue of housing affordability and availability in the Carlsbad area.

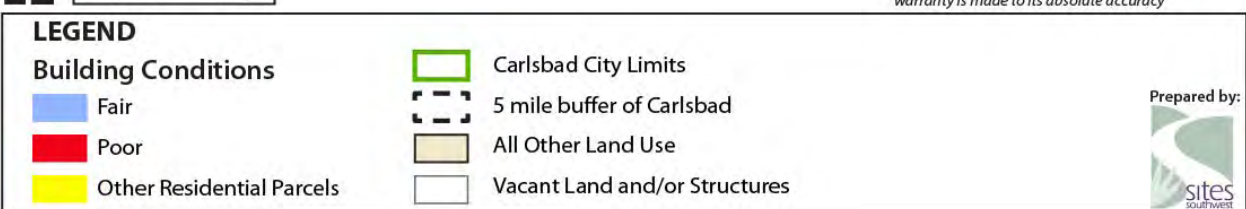
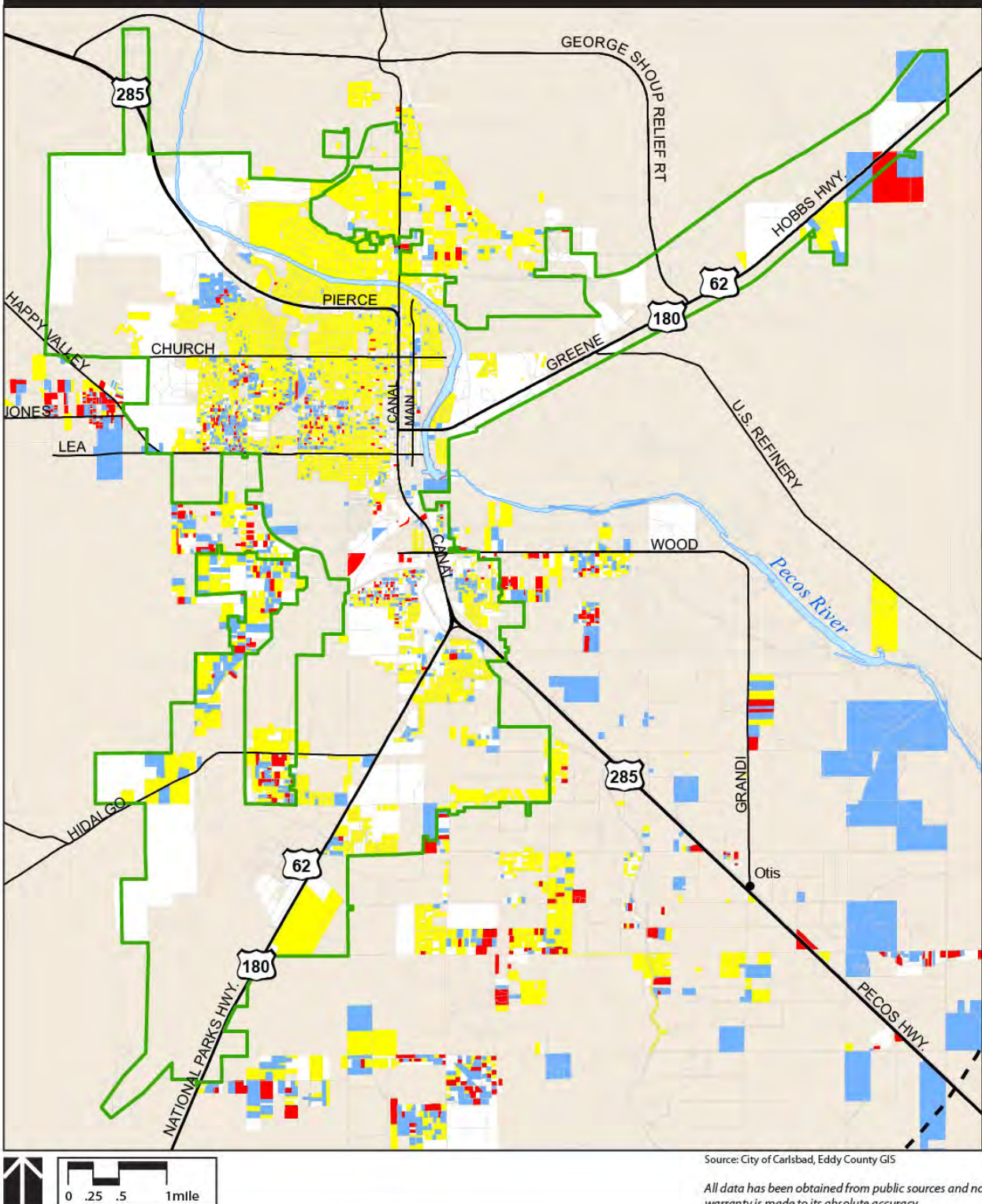
The Housing Analysis determined that only 14.2 percent of homeowners had a housing burden (paying 30% or more of their income for housing), while 33.9 percent of renter households had a housing burden. Households with annual incomes below \$35,000 were more likely to experience a housing burden. Meanwhile, a significant percentage of households earning more than \$35,000—including both owners and renters—paid less than 20 percent of their income on housing, suggesting that there is room for upward mobility if adequate high-quality housing was available.

In addition, the Strategic Plan identified a shortage of housing for particular groups. It pinpointed a need for affordable housing for low-income families (\$20,000 a year and under), for the general workforce (incomes between \$20,000 to \$60,000 annually for educators and public servants, and from \$60,000—for entry level mine workers—up to \$200,000 for health care professionals) plus a variety of housing options for the growing Baby Boom retirees. The following housing priority areas were identified:

- Market rate rental housing and suitably priced single-family development to provide workforce housing;
- Mixed income/affordable multifamily housing development;
- Rehabilitation of existing housing stock;
- Homeless/transitional housing.

Figure 10. Carlsbad Housing Building Conditions

August 28, 2012



According to the Strategic Plan, there is sufficient vacant land in Carlsbad for new housing development; however, much of it may be infill lots not suitable for larger-scale development under current regulations. The public rated the annexation of land adjacent to Carlsbad as a high priority and a potential solution to spur housing development.

2. Barriers to Housing Development

The Greater Carlsbad Housing Analysis and Strategic Plan identified several constraints that inhibit the provision of both market-rate and affordable housing in Carlsbad. These included insufficient infrastructure, particularly for water and wastewater; financing, both for housing developers as well as potential buyers; and institutional disincentives to development, such as restrictive provisions in the subdivision and zoning ordinances. A slow permitting process at the municipal level was cited as an obstacle as well as a lack of local workers in the construction industry and lack of community amenities to entice developers and inspire long-term growth.

Since 2009, the City of Carlsbad has incorporated a number of strategies to address the city's housing issues. These strategies include: revising the Zoning Ordinance, developing a full service permitting and inspection department and establishing a reimbursement program. The City has also initiated an aggressive condemnation program in blighted areas to make them more desirable for future redevelopment.

3. Housing Analysis and Strategic Plan Goals and Strategies

The Strategic Plan put forth several goals, policies and action steps to address the constraints listed in the previous section. Goals included:

1. Providing a range of housing opportunities for current and future residents—including affordable and market rate options, rental and home ownership opportunities, new and redeveloped housing, and housing for individuals with special needs. Policies and action steps to achieve this goal included, among other things:
 - Eliminating regulatory barriers;
 - Pursuing infill development;
 - Actively working to acquire land and partnering with private or nonprofit entities to develop mixed income and affordable housing developments.

2. Ensuring adequate infrastructure capacity in infill and expansion areas by
 - Completing infrastructure projects already under way;
 - Creating a drainage plan.
3. Ensuring that housing protects the health, safety and welfare of residents by working to eliminate conditions of blight by
 - Designating a Metropolitan Redevelopment Area (MRA) in downtown Carlsbad;
 - Increasing code enforcement and pursuing condemnation of lots as appropriate.
4. Improving the City's capacity to engage in housing development programs and supporting nonprofit organizations in this activity.
5. Working to improve the City's appearance and local amenities by
 - Undertaking beautification and recreation projects.
6. Cooperating with Eddy County in regulating land and development in the unincorporated areas around Carlsbad where possible.

In addition to the goals, policies and action steps outlined above, the City adopted an Action Plan of specific projects to undertake. The top two priority projects were to work with a private or nonprofit developer to provide a) 120 rental units of workforce housing, and b) 120 rental units of affordable and market rate rental housing using the Low Income Housing Tax Credit program of the New Mexico Mortgage Finance Authority.

4. Recent Housing Activity

Since the Carlsbad Housing Analysis and Strategic Plan was adopted, a number of new housing developments have started construction and attracting occupants.

There are three new market rate rental complexes underway:

- **Copperstone Apartments**, in northern Carlsbad along Calloway Drive and Cherry Lane, had built and leased 72 of its projected 300-350 units by March 2012. Monthly rents range from \$675 to \$1,200 for its 1-, 2-, and

3-bedroom units that are grouped in single buildings of 8 units each. There is a waiting list for the 3-bedroom units to be built in Phase II. Gated after hours, it also features an indoor and outdoor pool and spa, a putting green, a clubhouse and fitness facility, and a resident lounge, library and business center.

- **Avalon Apartments**, in southern Carlsbad along San Jose Blvd, offer 1-, 2-, and 2+ study bedroom units, and include a pool, sand volleyball court, a tot lot and playground, a fitness and business center and a dog park.
- **The Village at Carlsbad**, a 240-unit development located in the southern portion of the city on National Parks Highway offers 1-, 2-, and 3-bedroom houses and amenities such as a walking path, pool and clubhouse.



In addition, several new single family subdivisions are underway. They are:

- **Spring Hollow**, approved in April 2009 for 191 homes west of the Copperstone apartments. Prices are in the \$170,000s to \$220,000s.
- **Riverfront**, consisting of 11 lots on the Pecos River. Lot prices are \$200,000 and up.

In the south near the city limits are:

- **Farmview**, approved in February 2011 for 114 single family homes on half-acre lots. The several that have been built are selling in the \$260,000—\$300,000 range for 2,200 square feet.
- **Walker Subdivision**, which includes 50 lots and is located on the Old Cavern Highway.
- **Valley View Heights**, located on Lea Street, consisting of 14 lots with homes that range from \$100,000 to 160,000.

C. Goals and Strategies

Goal 1. Carlsbad will continue to encourage the development and redevelopment of housing in appropriate locations and at appropriate densities in order to provide a range of housing choices that meets the needs of current and future Carlsbad residents.

- Strategy a. The City of Carlsbad will adopt housing provision as integral part of its community development program.
- Strategy b. The City will cooperate with the private and non-profit sectors, including homebuilders and lenders, to ensure adequate housing is provided for residents of various ages, incomes and household sizes.

Goal 2. Carlsbad will ensure that local housing protects the health, safety, and welfare of residents and their neighbors.

- Strategy a. Local government will strive to provide a full range of housing rehabilitation and replacement services available in New Mexico. The City will seek CDBG funding to rehabilitate or replace housing in poor condition or infrastructure in residential areas.
- Strategy b. Carlsbad will continue to use its police powers to reverse and correct blight by removing structures that pose a threat to the health, safety, and welfare of its residents.

Goal 3. Carlsbad will cooperate with Eddy County in regulating the quality of development in the unincorporated county surrounding Carlsbad to ensure that residents live in healthy, safe environments free of blight and neglect now and in the future.

- Strategy a. The City of Carlsbad will work with Eddy County to better regulate development in unincorporated county areas adjacent to the city to ensure that future residential areas are appropriately sited and supplied with adequate infrastructure developed to appropriate standards.
- Strategy b. Using the provisions permitted in the New Mexico Metropolitan Redevelopment Code and the CDBG

set-asides for “colonias” improvements, the City of Carlsbad and Eddy County will cooperate to correct blighted conditions in unincorporated areas.

Chapter 5:

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. It identifies Carlsbad's basic industries, economic sectors that have developed to support them, and the outlook for the future.

A. Existing Economic Conditions

Greater Carlsbad's economy has been based largely in the extractive industries and agriculture. Nearly 12 percent of the Carlsbad workforce is employed in these industries compared with only 4.2 percent of the New Mexican workforce statewide (ACS 2008-2010). Considered basic industries (those that export resources, products and services and bring new dollars into a community), these industries also generate substantial indirect employment through the demand they create for other goods and services.

While these local natural resources have a finite life and are subject to cyclical economies, it is likely that they will continue to provide good paying jobs for at least several more decades. Foreseeing that the total number of jobs is projected to decline over time, however, Carlsbad's leaders have been working to diversify the economy through attracting tourists and other visitors, encouraging retirees to relocate to the city and expanding nuclear waste management activities.

1. Extraction

Potash Mining

The primary extractive industries in Carlsbad are mining for potash and drilling for oil and gas. Potash is the common name for various mined and manufactured salts that contain potassium in water-soluble form. It is produced worldwide at amounts exceeding 30 million tons per year, primarily for use in fertilizers. Mosaic, an international company, and Intrepid, a more locally based company, are the two largest producers in New Mexico.

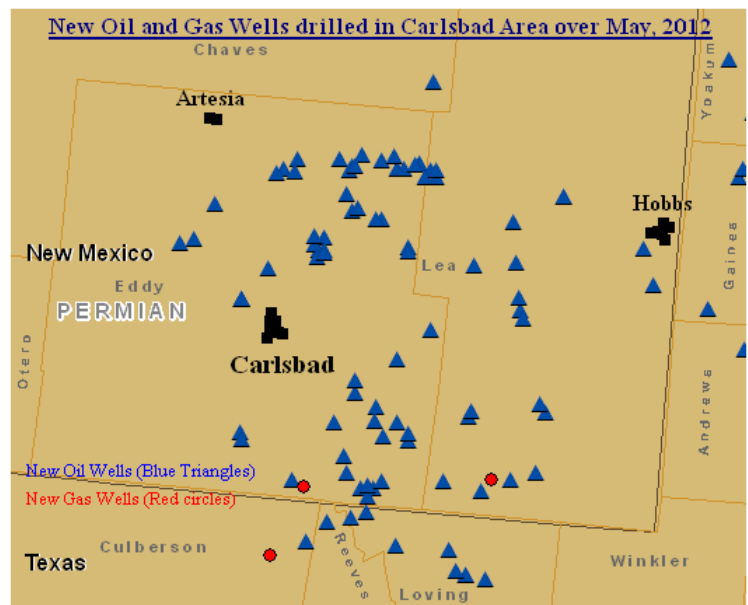
Formed in January 2000, Intrepid Mining raised and stabilized production volumes in the Moab Mine in Utah by applying horizontal drilling technology in combination with solutions mining. A few years later the firm acquired mining assets in Carlsbad, NM. After public meetings and an environmental impact statement, Intrepid's new project in Carlsbad was finally approved by the Bureau of Land Management. The HB Solar Solution Mine project will involve injecting salt-saturated brine underground to selectively dissolve and recover potash in existing, idled mine workings. Once enriched with dissolved potash, the brine will be pumped through pipelines to above-ground, lined solar evaporation ponds where the potash will later be recovered. The mine is expected to have a 28-year life and produce 150,000 to 200,000 tons of potash per year for a total yield of some 5 million tons (Topf 2012)

Other companies have also expressed interest in exploration. Intercontinental Potash Company (ICP) has been working with the Bureau of Land Management in drafting a mine plan and beginning the Environmental Impact Study (EIS) process for a site known as the Ochoa Mine (Carlsbad LTPC, 2012). Forty minutes south of Carlsbad another huge reserve of potassium sulfate was recently found that contains good quality ore, 5 to 8 feet thick. It is anticipated to be under construction by 2014 and likely generate 800 construction and up to 400 permanent jobs. Many of these workers are anticipated to come from Eddy County (Waters 2012). The demand for potash is increasing globally, and there appears to be a long future for the potash industry in southeast New Mexico (Carlsbad LTPC, 2012).

The BLM is working to ensure that public lands within the Carlsbad's water protection zone are slated for exchange or sale in its future long-term plan, which would give the City the opportunity to eventually acquire them (Carlsbad LTPC, 2012).

2. Oil and Gas

Carlsbad sits in the middle of the Permian oil Basin of southeast New Mexico and southwest Texas. One of the largest and most active oil basins in the United States, it accounts for approximately 16 percent of the total United States oil production. In 2000, New Mexico produced more than 68 million barrels of oil, 1.6 trillion cubic feet of natural gas, and 119 billion cubic feet of naturally occurring carbon dioxide for a total value of \$8.2 billion from more than 2,000 oil and gas fields. That same year the state derived more than a quarter of its general fund revenues from taxes and royalties on oil, natural gas and carbon dioxide



production (Broadhead 2003). Data from NM's Oil Conservation Division show that the eight top-producing counties produced \$61.2 million barrels of oil and 1.4 trillion cubic feet of natural gas in 2009. Eddy County was the second highest producer of oil and third highest producer of natural gas in the state.

Table 6. 2009 Oil and Gas Production by County

Oil (Barrels)		Gas (in MCF-thousand cubic feet)	
1. Lea -	32,966,378	1. San Juan-	549,672,095
2. Eddy -	24,433,566	2. Rio Arriba-	364,999,420
3. Rio Arriba -	1,215,284	3. Eddy-	223,082,275
4. San Juan -	1,127,644	4. Lea-	202,616,260
5. Chaves -	1,068,122	5. Chaves-	27,411,753
6. Roosevelt -	233,991	6. Colfax-	26,124,386
7. Sandoval -	115,961	7. Roosevelt-	2,119,410
8. McKinley -	36,539	8. Sandoval-	1,249,423
		9. McKinley-	73, 878
Total	61,197,485	Total	1,398, 348,900

Source: Oil Conservation Division as of November 14, 2010 and Carlsbad Long-Term Planning Committee, 2012.

The international Occidental Petroleum Corporation is the leading operator in the basin, with a deep inventory of more than 2,000 drilling locations on nearly three million net acres (www.oxy.com). Two-thirds of its oil production there is from fields that employ carbon dioxide flooding, an enhanced oil recovery technique that injects carbon dioxide into oil reservoirs, causing the trapped oil to flow more easily and efficiently and permanently trapping the CO₂ underground.

Moreover, in May of 2012, Eddy County's new rig count outnumbered Lea County's 59 to 23. As of June 1, 2012, Eddy County was up 31.1 percent over the same time last year. Because oil and gas production is not as labor intensive as the drilling of each well, the population and community is far more influenced by the number of actual wells drilled than gallons produced. The number of gallons produced indicates the relative number of truckers that haul the product to be refined as well as revenue to the county from produced barrels.

Significant volumes of crude oil and natural gas remain to be produced in New Mexico. The state's Bureau of Geology and Mineral Resources at New Mexico Tech estimated in 2003 that a minimum of 22 years of crude oil and between 32 and 45 years of natural gas remained to be produced at current production rates. Production methods are always changing, however, and now are able to profitably reach and produce additional oil and gas than what was anticipated. Fluctuations in energy prices result in boom and bust cycles in oil and gas production, leading to a push for a more diversified economy (Broadhead 2003).

3. Renewable Energy

Solar

The region is also moving ahead to produce other forms of energy. SunEdison, North America's largest solar energy services provider, reached an agreement with Xcel Energy's regional operating company, Southwestern Public Service Company, for five 10 megawatt photovoltaic solar installations in Eddy and Lea Counties. General contractor Signal Energy, LLC, recently completed construction on a 10.8 M solar farm just southeast of the Carlsbad airport complex. The use of tracking technology will allow solar modules to follow the course of the sun and increase electricity production. The project will enable Xcel Energy to purchase enough solar energy to continue meeting New Mexico's renewable portfolio standard (15% of electricity needs by 2015 and 20% by 2020) through renewable energy sources. (Carlsbad LTFC, 2012; CDOD 2012; <http://www.sunedison.com>, accessed May 2012).

Biofuels

Work on producing biofuels from algae is also progressing in the region. The non-profit Center of Excellence in Hazardous Materials Management (CEHNM), located in Carlsbad and Artesia, is developing technology to propagate, harvest and extract oil from algae. The region's non-arable land, brine water and hot sun produce nearly ideal conditions for this process. Algae not only yield high amounts of oil, but they are natural, nontoxic, and consume massive quantities of carbon dioxide, reducing the amount of greenhouse gases in the air. (www.governing.com/templates/gov_print_article?id=104015709). One of the processes separates the oil from the cell membranes, which can then be composted, used as fertilizer or fed to animals. Whether or when the biodiesel project can scale up to a commercial level remains to be tested. The US Department of Defense is also funding additional research into algae-based jet fuel at the NM State University in an effort to minimize dependence on foreign oil (NMSU 2010).

4. Nuclear Energy-Related Industries

Since 1999, the Waste Isolation Pilot Plant (WIPP), outside of Carlsbad, has been accepting and storing the nation's transuranic waste without incident. Transuranic (TRU) waste originates mostly from nuclear weapons production facilities and has plutonium as its most prominent element. Most TRU waste does not emit high levels of penetrating radiation but can damage lung tissue and internal organs if inhaled (www.greenworldinvestor.com/2011). With 22 more sites to go, 95 percent of US TRU waste sites are expected to be cleaned up by 2015.

WIPP recently lost 100-150 jobs due to federal cutbacks. Carlsbad economic development leaders are looking ahead to expanding WIPP to handle higher-level nuclear waste, such as spent nuclear fuel, contending that Carlsbad's salt beds are safer than any other location for such storage. In April 2012 Carlsbad hosted the first National Nuclear Fuel Cycle Summit, which brought in 300 attendees from all over the US to discuss the nuclear fuel cycle and WIPP's pivotal role (Waters, 2012).

Also in June 2006, Louisiana Energy Services (LES) was issued a license to construct a gas centrifuge uranium enrichment plant near Eunice, NM, some 70 miles from Carlsbad. Originally known as the URENCO USA facility—now the National Enrichment Facility—it is the first enrichment facility to be built in the US in 30 years and the first ever using centrifuge enrichment technology. URENCO is a private, limited liability company overseen by representatives of Germany, the Netherlands, and the United Kingdom since 1971; the US was added by treaty in 1992. Construction of the facility began in June 2010 and will continue until the plant reaches the planned 5,700 tSW/a capacity (www.urenco.com, 2012).

Eddy and Lea Counties have since formed a limited liability corporation consisting of elected and appointed officials from southeastern New Mexico to attract additional industries related to interim storage or reprocessing of nuclear fuel. The Eddy-Lea Energy Alliance (ELEA) was created expressly to pursue and secure Global Nuclear Energy Partnership projects at a site halfway between Carlsbad and Hobbs in Lea County. They received one of 11 grants awarded by the US Department of Energy (DOE) in 2007 to investigate sites for two GNEP facilities. Their team concluded that the 1,000-acre-plus greenfield site was ideal because it had access to sufficient water (but no surface or shallow groundwater), had strong community support, and was located in a remote area with low population density along what is developing a reputation as New Mexico's "Nuclear Corridor" (Kehrman, 2008). The effort "reinforced the prospects for the state of New Mexico and its southeastern constituents as a leading center and supporter for the future of nuclear power in the US...." ELEA is currently in the process of selecting a corporate partner to proceed into NRC licensing, design, construction and operation of a National Consolidated Interim Storage Facility for Spent Nuclear Fuel. It is anticipated that this initial site will employ 100-150 technicians, scientists, security personnel, and transportation professionals.

5. Manufacturing

According to a March 2012 report from the *Manufacturers' News*, Inc., Carlsbad moved up to be the fifth largest manufacturing city in New Mexico in 2011 (<http://www.manufacturersnews.com/news/>).

Carlsbad has six manufacturing companies, three of which are located in the Carlsbad Airport Industrial Park. The manufacturing leaders are URS-Engineered Products Division, which makes nuclear materials containers; Tessenderlo-Kerley Services (TKS), which makes agricultural equipment and chemical products; Cel Tech, which makes jet test engine parts; and SPS, a specialized plastic product manufacturer.

6. Agriculture

In the agricultural sector, beef –and more recently goat meat— production is supplemented by alfalfa, cotton, chile and pecan cultivation in the greater Carlsbad region. Sheep farming has diminished due to the end of government wool incentives and increased threats from predators such as mountain lions and coyotes. Agriculture varies with the rise and fall of prices as well as with the amount of available water. In 2012, for example, farmers were receiving only a third of their 3.65 acre-foot-allotment of water so they were growing less alfalfa even though the price was high. Cotton planting was up in 2012 due to higher prices, and from 1,000 to 1,500 more pecan trees were planted.

The Eddy County Agricultural Extension Service sees the drought as the biggest threat to agriculture in the region. Another issue is the aging of farmers; the average age of farmers in Eddy County is 65 compared with 62 nationwide. Some young farmers are entering the industry, although many have second jobs to lower the inherent financial risks of farming (Houghton 2011)

B. Commercial and Industrial Land Availability

Carlsbad offers two main locations for industrial and heavy commercial uses. The commercial/industrial land along Hobbs Highway is a largely linear corridor with large lots owned by various people. Most sites on the north side of the highway have rail access to Southwest Railroad, in addition to water, gas, and telecommunications.

The Carlsbad Airport Industrial Park (or CAIP) contains approximately 445 acres located six miles south of downtown Carlsbad. Created in 1980 with funding from the federal Economic Development Administration, it is host to general and electrical construction companies, oil and gas companies and three manufacturing companies. The Carlsbad Department of Development markets all available CAIP property, which is for sale by the City. Since 2009, the CDOD has helped the City sell more than 83 acres of CAIP Property. About 85 acres of available property remain to be developed.

C. Tourism

Tourism, centered on the Carlsbad Caverns National Park, continues to play an important role in the local economy. Located approximately 27 miles southwest of Carlsbad, the national park contributes to the economic activity of the greater Carlsbad region through visitor spending and park operations. The park hosted 428,524 visitors in 2010 who spent more than \$23 million in the park and in nearby communities, supporting more than 346 jobs in the area (National Park Service 2012). While down a bit from 2009 visitation numbers, attendance at the park has been rebounding since the lull in 2008, the height of the recession. Most of the spending and jobs are related to lodging, food, and beverage sales (59%), followed by other retail (29%), entertainment/amusements (10%) and groceries (2%).

Another strong tourist attraction in the region is Guadalupe Mountains National Park, located some 25 miles southwest of the Caverns along the Texas/New Mexico border. It offers visitors 80 miles of trails that meander through woodland canyons and riparian springs or up steep switchbacks. Park personnel counted a total of 198,882 recreational visits in 2009, reversing a fairly steady decline since 2001.

A 2007 study by the Bureau of Business and Economic Research at the University of New Mexico advised Carlsbad to try to capture a greater share of dollars that visitors bring to the region in their travels to both these national parks (Mitchell 2007). The report noted that spending in restaurants and other recreational services in Carlsbad is below average for the state. It suggested that Carlsbad MainStreet work with businesses to develop services and attractions of interest to the well-defined and general affluent groups of outdoor enthusiasts that could bring new energy into the Downtown. Risks of such businesses could be tempered by marketing to local residents, particularly adults ages 20 to 50 years, who were seeing growth in their disposable incomes.

Carlsbad has responded to this by developing plans and designs for a wayfinding signage system that would help guide tourists to other amenities such as the Lake Carlsbad Recreation Area, the Downtown, municipal golf course, the Riverwalk Recreation Center, Brantley Lake State Park, and the Living Desert State Park Museum. More upper-scale hotels and restaurants have also appeared along Canal Street, the main corridor through town.

Tourism remains one of the fastest growing industries nationally. Carlsbad's climate and its economic base in tourism position it to take advantage of that trend. One of the town's most recent projects is the Cascades at Carlsbad, a developing open-air marketplace and office complex about six blocks northeast of Downtown, between the railroad tracks and the river. Spearheaded by the Department of

Development, the Cascades, at full build-out, is anticipated to house 650,000 square feet of retail, dining and entertainment at the ground level with office space on the upper floors. Buildings will be sited along an internal canal. At present, the National Cave and Karst Research Institute and Museum has been constructed and landscaped, the Senior Activity Center built and in operation, and the first 34,000 square feet of retail, restaurant and office space is being finished. Future plans call for upscale hotels and family entertainment venues unique in southeast New Mexico. Access to the Cascades is currently via Park Drive, which is adjacent to the river leading to the Lake Carlsbad Recreation Area. In the future the City plans to open a connection to Downtown on Hagerman Street via an at-grade railroad crossing (CDOD 2012).

1. Other Visitor Attractions

In addition to the Pecos River Village Conference Center and the Walter Gerrells Performing Arts and Exhibition Center (described in the Community Services and Facilities chapter) which host events that attract visitors to town, the City recently built the Bob Forrest Youth Sports Complex. Located on W. Lea Street, this facility is home to six full-size youth softball fields, four full-size youth soccer fields, one football field, two junior-senior baseball fields, and four Little League baseball fields. The fields are used year-round for youth recreation, league play, tournaments, and other special events. The area is equipped with large concession facilities, large restrooms and playground equipment. A central parking area accommodates multiple events simultaneously, and disabled visitors are transported by circulating golf carts. The complex has created more business for the local hotels and restaurants.

Carlsbad can also take advantage of the 2 million acres of open land owned by the federal Bureau of Land Management. This open space draws visitors and residents alike to hunt, fish, and ride all terrain vehicles.

Two hotels have recently entered the Carlsbad market on the south end, and the new Lowes Home Improvement store is doing better than anticipated. National restaurants are anticipated to follow.

D. Workforce

The relative significance of these sectors to Carlsbad residents shows up in the workforce data collected by the US Census Bureau. As noted previously, the Agriculture, Forestry, Fishing and Hunting and Mining industrial sector employs approximately 11.7 percent of the Carlsbad workforce, a higher percentage than any other sector besides Educational Services and Healthcare (28.5%). Compared to the rest of New Mexico, a slightly lower percentage of Carlsbad residents works in the Manufacturing sector (3.5% versus 5.2%).

Retail Trade (8.6% versus 11.7% for all of New Mexico) and Arts, Entertainment and Recreation (8.0% versus 10.4%). The margin of error in these statistics, however, is large enough to exaggerate or minimize these differences (ACS 2008-2010).

Table 7. Carlsbad Population Employment by Industry

INDUSTRY	Carlsbad	Percent	M/E	New Mexico	Percent	M/E
Civilian employed population 16 years and over	11,991	100.0%	(X)	888,398	100.0%	(X)
Agriculture, forestry, fishing and hunting, and mining	1,402	11.7%	+/-2.7	37,532	4.2%	+/-0.2
Construction	864	7.2%	+/-2.8	71,816	8.1%	+/-0.3
Manufacturing	436	3.6%	+/-2.2	46,199	5.2%	+/-0.3
Wholesale trade	209	1.7%	+/-1.4	19,317	2.2%	+/-0.1
Retail trade	1,034	8.6%	+/-2.3	103,518	11.7%	+/-0.4
Transportation and warehousing, and utilities	548	4.6%	+/-1.8	40,094	4.5%	+/-0.2
Information	193	1.6%	+/-1.1	16,249	1.8%	+/-0.2
Finance and insurance, and real estate and rental and leasing	674	5.6%	+/-2.5	43,586	4.9%	+/-0.3
Professional, scientific, and management, and administrative and waste management services	970	8.1%	+/-3.0	93,661	10.5%	+/-0.3
Educational services, and health care and social assistance	3,423	28.5%	+/-5.2	213,845	24.1%	+/-0.4
Arts, entertainment, and recreation, and accommodation and food services	962	8.0%	+/-2.5	92,351	10.4%	+/-0.4
Other services, except public administration	424	3.5%	+/-1.6	42,345	4.8%	+/-0.2
Public administration	852	7.1%	+/-2.3	67,885	7.6%	+/-0.3

Source: American Community Survey 2008-2010

Regarding types of occupations, a higher percentage of the Carlsbad workforce is employed in Natural Resources, Construction and Maintenance than in New Mexico generally. A slightly lower percentage than in the state works in Sales and Office Occupations or Management, Business, Science or Arts Operations.

The percentage of workers employed in the private sector versus the public sector is similar for both Carlsbad residents and New Mexico residents generally. Carlsbad may have a slightly higher percentage of private wage and salary workers (73.7% versus 70.1%) and slightly lower percentage of government employees (19.7% versus 22.5%) than the state in general, but the margin of error is too large to be certain (ACS 2008-2010). About six to seven percent of both populations are self-employed.

Table 8. Carlsbad Population Employment by Occupational Type

OCCUPATION	Carlsbad	Percent	M/E	New Mexico	Percent	M/E
Civilian employed population 16 years+	11,991	100.0%	+/-696	888,398.0	100.0%	+/-5,228
Management, business, science, and arts occupations	3,871	32.3%	+/-4.2	307,461	34.6%	+/-0.5
Service occupations	2,384	19.9%	+/-3.2	173,956	19.6%	+/-0.4
Sales and office occupations	2,493	20.8%	+/-4.1	214,449	24.1%	+/-0.6
Natural resources, construction, and maintenance occupations	2,026	16.9%	+/-3.6	109,709	12.3%	+/-0.4
Production, transportation, and material moving occupations	1,217	10.1%	+/-2.9	82,823	9.3%	+/-0.3
CLASS OF WORKER						
Civilian employed population 16 years+	11,991	100.0%	(X)	888,398	100.0%	(X)
Private wage and salary workers	8,838	73.7%	+/-4.5	622,470	70.1%	+/-0.5
Government workers	2,365	19.7%	+/-3.9	200,182	22.5%	+/-0.5
Self-employed in own not incorporated business workers	745	6.2%	+/-2.0	63,952	7.2%	+/-0.3
Unpaid family workers	43	0.4%	+/-0.6	1,794	0.2%	+/-0.1

Source: ACS 2008-2010

1. Unemployment

Much of Carlsbad's employment remained unscathed by the Great Recession of 2007-2009, as attested to by an unemployment rate that stayed at or below 6.6 percent over the past five years. By 2012, the low unemployment rate of 3.7 percent to 4.0 percent placed it in the rare position of seeking to recruit employees from out of town. In Fall 2011, this circumstance drew the NM Secretary of the Department of Workforce Solutions to the city to talk with economic development officials, community leaders, business owners and state representatives about ways to attract more workers to the area to fill job openings (CDOD 2012).

2. Household Income

Carlsbad's median annual household income of \$45,833 is higher than the median household income of all New Mexico households (\$43,569). Income among the largest percentage of households (17% to 18%) in both Carlsbad and the state fell into the \$50,000 to \$74,999 range. Only about 13.1 percent of households in Carlsbad compared with 15.8 percent of those in New Mexico generally had household incomes below \$15,000.

Table 9. Household Incomes of Carlsbad Population

INCOME*	Carlsbad	Percent	Margin of Error	New Mexico	Percent	Margin
Total households	9,578		of Error	759,896	759,896	of Error
Less than \$10,000	751	7.8%	+/-2.7	71,014	9.3%	+/-0.3
\$10,000 to \$14,999	512	5.3%	+/-2.1	49,549	6.5%	+/-0.3
\$15,000 to \$24,999	1,255	13.1%	+/-3.2	99,165	13.0%	+/-0.4
\$25,000 to \$34,999	1,215	12.7%	+/-3.2	89,285	11.7%	+/-0.3
\$35,000 to \$49,999	1,466	15.3%	+/-3.1	115,365	15.2%	+/-0.3
\$50,000 to \$74,999	1,657	17.3%	+/-3.5	135,549	17.8%	+/-0.5
\$75,000 to \$99,999	989	10.3%	+/-3.4	81,727	10.8%	+/-0.3
\$100,000 to \$149,999	1,137	11.9%	+/-2.5	76,787	10.1%	+/-0.3
\$150,000 to \$199,999	469	4.9%	+/-2.0	23,478	3.1%	+/-0.2
\$200,000 or more	127	1.3%	+/-0.9	17,977	2.4%	+/-0.2
Median household income (dollars)	45,833	(X)	(X)	43,569	(X)	(X)
Mean household income (dollars)	62,834	(X)	(X)	58,893	(X)	(X)

* Adjusted for Inflation
Source: ACS 2008-2010

E. Economic Development Organizations

A number of local nonprofit organizations have taken on the task of championing economic development in Carlsbad: the Carlsbad Department of Development, the Carlsbad Chamber of Commerce, and Carlsbad MainStreet.

The Carlsbad Department of Development's (CDOD) name sounds like a government entity, but it is a private, non-profit organization. Its membership represents more than 100 chief executives of Carlsbad businesses, the City of Carlsbad, Eddy County Board of Commissioners, NM State University-Carlsbad and others. Incorporated in 1966, its goal is to promote the economic and general welfare of the citizens of Carlsbad and southern Eddy County through job creation and retention by recruiting new industry, retaining new existing business and diversifying the economy. Its website offers assistance in site selection for businesses, commercial property availability, employment and job trends, and properties for rent or purchase. Projects include the Cascades development, Ken Thurston Homes, Lowes Home Improvement Center, the Trinity Hotel conversion from a bank into a restaurant, bar and hotel, and SunEdison.

The Carlsbad Chamber of Commerce on Canal Street has been in operation since 1892 under various names. It was designated a State of New Mexico Visitor Information Center in July 2009. It focuses on quality of life issues in Carlsbad, displays a community event calendar on its website, and sponsors a Friday morning breakfast for local business members to connect. It actively promotes Carlsbad as

a haven for retirees and works on projects that support that, such as expansion of housing and the Carlsbad Medical Center.

Carlsbad Medical Center is positioning itself as a regional hospital, recently updating its obstetrics-gynecology section, operating rooms and the lobby. In Fall 2011 it earned the distinction of being a top performer on key quality measures during the accreditation process by the Joint Commission, a national accreditation body. This status was based on data reported about evidence-based clinical processes that are shown to improve care for certain conditions, including heart attack, heart failure, pneumonia, surgical care and children's asthma (Suggs 2011).

Carlsbad MainStreet is the newest non-profit organization engaged in economic development. In 1987 the City joined the state Mainstreet program and began to work locally to revitalize the downtown and stabilize the economy in the core business district. They have produced a Downtown Master Plan, new street and wayfinding signs, and façade improvements. They also are involved in such signature events as the Downtown Farmer's Market, the Downtown Fall Festival, the Holiday Stroll (after Thanksgiving), the Electric Light Parade, the Little Miss Merry Christmas contest and volunteer clean-up days (www.carlsbadmainstreetnm.com 2012).

1. Economic Development Plan Ordinance

To allow public support of economic development projects, Carlsbad in 2000 passed an Economic Development Plan Ordinance (2000-08; Chapter 38, Article IV, Sections 66-79). New Mexico's anti-donation clause in the state constitution generally prohibits public money to be given to private interests. Exceptions to this clause are provided by the Economic Development Plan ordinance and in designated Metropolitan Redevelopment Areas. The ECP ordinance allows public support of economic development while guarding against unauthorized use of public money and resources. It allows the Carlsbad City Council to assist economic development projects in any permissible manner, including, but not limited to provision of land, buildings and infrastructure whether already owned or to be developed. The City may also waive fees or pay for such professional services as industry feasibility studies and planning and design services needed to implement a project. Any qualifying business (retail sales businesses are generally excluded) can apply for financial help with a project. Applications are evaluated for cost/benefit, such as the number and pay scales of jobs to be created, which jobs are expected to be filled locally, total expected payroll and anticipated impact of the project on the local tax base and school system.



Part of the trail system along the Pecos River in Carlsbad. Parks need to maintain a high level of maintenance in order to keep their value to the community.

F. Issues and Community Suggestions

Housing. A key issue affecting economic development is the lack of sufficient housing in Carlsbad, particularly affordable multi-family rental housing. This issue was cited by most stakeholders. It affects recruitment of retirees, nurses for the hospital, workers for mine and drilling operations as well as support employees such as teachers, public safety officers, and retail sales people. The Economic Development Committee of the Long Term Planning Committee said it was the number one critical issue forestalling expansion in Carlsbad. New market rate apartments and single family houses currently are under development (see Housing Chapter), but more are needed.

Workforce. The Chamber of Commerce also points to a need for NMSU-Carlsbad to expand from a two-year to a four-year college. An initial step would be to develop a four-year science/engineering program along with dormitory or apartment space. It is hoped that offering a four-year degree would help develop a workforce that would stay in Carlsbad after graduation. Related to this is taking advantage of local resources—Carlsbad Municipal Schools, the Small Business Development Center and partners—to develop a well-trained workforce that meets the needs of local businesses.

Diversification/ Expansion. Economic development organizations also supported more diversification and expansion of existing industries such nuclear, alternative energy, oil gas and potash, and tourism.

Wireless Internet. Another need is to provide wireless internet access throughout the city. Currently only the conference center, the Chamber of Commerce offices, and a few local businesses offer wireless access.

Transportation. Getting to and around town was also seen as important. Services specifically mentioned were a charter air service and expansion of the bus service. The City plans to expand its fixed route bus service into more residential areas of town.

Agriculture. Water is another key element necessary for expansion. While water issues are primarily addressed in the Water and Wastewater chapter, it is mentioned here as a limiting factor for the agriculture industry. The Carlsbad Irrigation District (CID) provides water to approximately 25,000 acres of farmland in the area. Each of these acres has a right to a maximum of 3.697 acre-ft of water annually, depending on availability (amount of snow-pack run-off and rainfall). CID allots a pro-rata share of water as it becomes available beginning in March of each year. Nearly 5,000 acres of water rights remain under the ownership and control of the NM Interstate Stream Commission, which is charged with delivering a certain amount of water to Texas as part of the Pecos River

Compact. Over the past years, CID delivered a range of 3.7 acre feet per acre (2007) to 1.4 acre-ft per acre (Carlsbad LTTPC, 2012).

Arable land is also necessary for agriculture. The Carlsbad Energy and National Resources Subcommittee pointed out in its report that more and more farmland is being urbanized. For growth to occur in this industry, the boundaries of the Carlsbad Irrigation District would have to move to include additional productive farmland that could be reached by the CID.

A related approach suggested in the survey comments would be to develop a comprehensive urban agriculture program. Urban agriculture is the practice of cultivating, processing and distributing food in or around a village, town or city. It contributes to food security and food safety by increasing the amount and proximity of vegetables, fruit and meat available to people living in cities. Part of the approach could be to encourage residents to grow food on their own property or in community gardens.

Quality of Life Issues. Other than housing, suggestions prioritized by the Economic Development Committee of the Carlsbad Long-Term Planning Committee focused more on quality-of-life issues and amenities. They called for better promotion of Carlsbad, tasteful signage, holding more signature events, reopening the drive-in theatre—which did reopen in May 2012—and keeping the city clean and beautiful. Additional restaurants and shopping were also mentioned.

G. Goals and Strategies

Goal 1. Enable the development of needed affordable and market rate housing in Carlsbad so that future employees and residents have places to live.

- Strategy a. Carry out recommendations of the Greater Carlsbad Housing Analysis and Strategic Plan (2009).
- Strategy b. Use the City's Economic Development Plan ordinance to aid housing developers with such financial incentives as lower cost or no cost land, buildings or infrastructure.
- Strategy c. Post vacant City-owned land and buildings on the City website; establish a contact source for this information.
- Strategy d. Work with NMSU-Carlsbad to create student housing.
 - Pursue renovating Edison School into student apartments if financially feasible.

Goal 2. Re-examine the growth goal of 50,000 people for Carlsbad.

- Strategy a. Perform baseline quantitative and qualitative studies on resources required for such community growth—particularly water availability and supply.
- Strategy b. Create build-out scenarios that show how such growth could be accommodated in Carlsbad by higher density, land annexation, additional roads and other infrastructure.
- Strategy c. Hold a Town Hall with Carlsbad residents to discuss the pros and cons of such a growth goal.

Goal 3. Develop a better educated workforce in Carlsbad.

- Strategy a. Continue working with NM State University-Carlsbad to develop a four-year science/engineering degree program.
- Strategy b. Work with the university to create continuing education programs that would train students in skills needed in the community.

Goal 4. Improve the appearance of Carlsbad.

- Strategy a. Hire additional code enforcement officers and step up removal of weeds, abandoned vehicles, and vacant buildings.

- Strategy b. Recruit a committee to start a City Blitz similar to or in conjunction with the River Blitz.
- Strategy c. Allow vacant lots to be used as temporary parks or community gardens.

Goal 5. Better promote Carlsbad and improve City communications with citizens, visitors, and future residents.

- Strategy a. Keep the City website up-to-date and accurate.
- Strategy b. Hire a public information officer to inform citizens about events, projects and other activities through the website and newspapers.
- Strategy c. Establish a “reverse 911” system that allows government public safety agencies to notify residents by telephone of an emergency.
- Strategy d. Develop a community resources directory and post it on the website.
- Strategy e. Use social media to promote Carlsbad.
- Strategy f. Support the development of more signature events for Carlsbad, such as triathlons, bike-a-thons, marathons, etc.
- Strategy g. Upgrade and repair the current city-wide wireless network.

Goal 6. Support the efforts and expansion of existing major industries, such as potash mining, oil and gas drilling, and nuclear waste disposal.

- Strategy a. Work with the Chamber of Commerce and Department of Development in their efforts.

Goal 7. Become a community known for striving to promote green and renewable energy sources, conservation efforts and reduction of solid waste.

- Strategy a. Determine if the City can enroll in the EPA landfill credit program which helps to reduce methane emissions from landfills by encouraging the recovery and beneficial use of landfill gas as an energy resource.
- Strategy b. Determine the effectiveness of the pilot incinerator currently operating at the landfill and whether it could be expanded.
- Strategy c. Implement Green Energy options such as solar panels, LED lights, and others on municipal facilities.
- Strategy d. Promote water conservation.

Goal 8. Develop more outside recreational amenities in Carlsbad for both residents and visitors.

- Strategy a. Develop more trails throughout the community for walking and biking.
- Connect existing trails.
 - Create an outdoor map showing access to trails and parks.
- Strategy b. Renovate the Riverwalk area.

Goal 9. Support the addition of more quality-of-life amenities in Carlsbad.

- Strategy a. Help implement the recommendations of the Carlsbad Mainstreet Downtown Master Plan.
- Strategy b. Support efforts by economic development organizations to attract more restaurants and retail establishments to Carlsbad.
- Strategy c. Provide City-owned land or vacant lots for community gardens.
- Strategy d. Help connect local farmers with the school systems and other potential customers.
- Strategy e. Provide information or links to residents about urban food gardens on the City website.

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Chapter 6:

Community Services and Facilities

Community services and facilities contribute to the quality of life for residents of a community by providing safety and protection, recreation and leisure, meeting places, social services, and educational and cultural opportunities.

Because these services contribute to the quality of life, it is necessary for the leaders of the community to assess the existing conditions and potential demand for services.

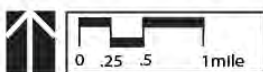
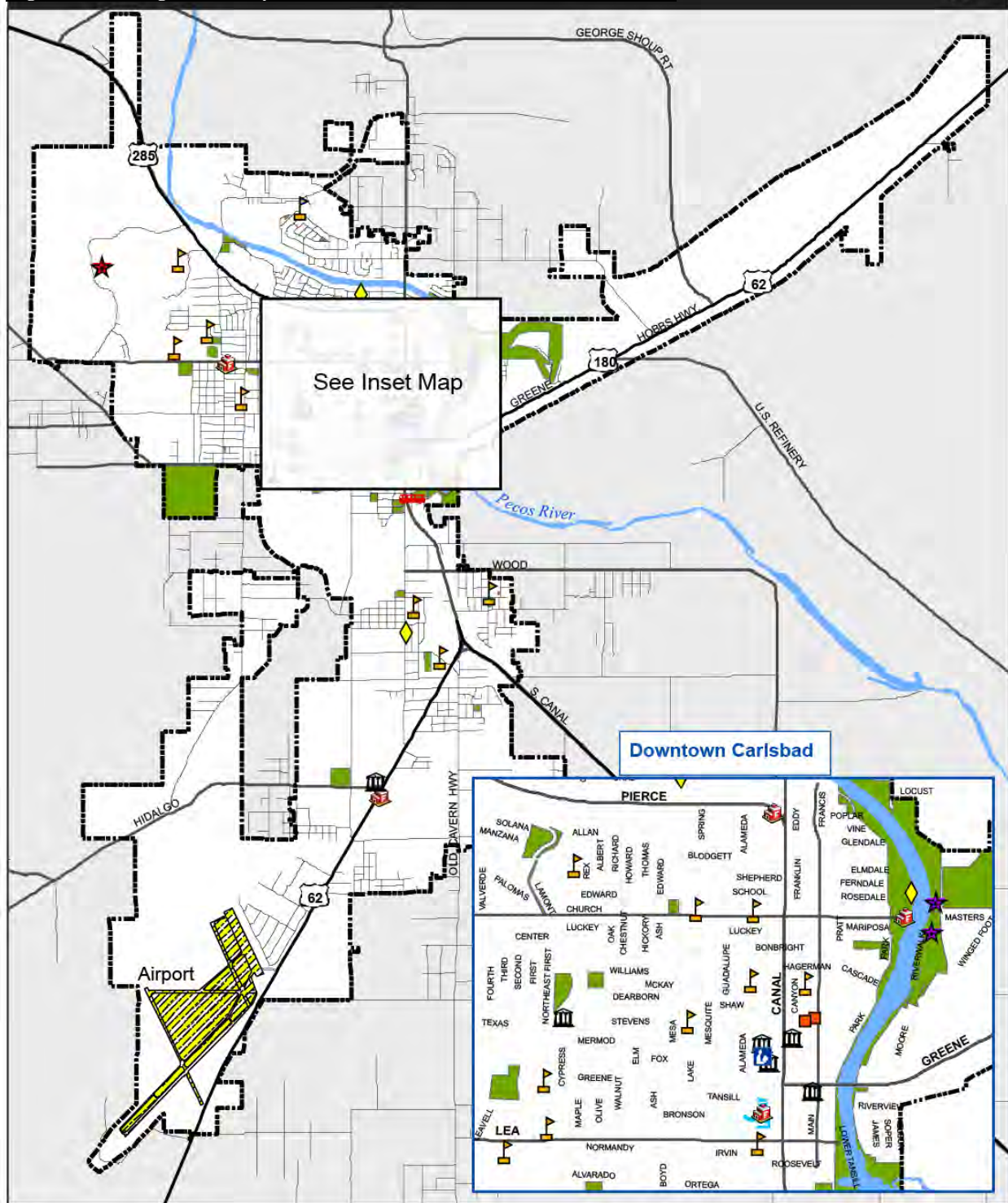
Community leaders can then determine whether the community's needs are being met now and will be met in the future by these community services.

A. Existing Conditions

Carlsbad provides its residents with a comprehensive set of community services and facilities. Following are summaries of the existing conditions of those services including: fire protection, police protection, parks and recreation, senior centers, public library, Pecos River Conference Center and the museum. Figure 11 shows the locations of existing community facilities within the city. Parks are labeled in Figure 12. The City of Carlsbad provides community services within its municipal limits. In unincorporated portions of the planning area Eddy County provides a more limited number of community services.

Figure 11. Existing Community Facilities

May 3, 2012



Source: City of Carlsbad, Eddy County GIS

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



1. Fire Protection Services

The City of Carlsbad Fire Department consists of six fire stations; five have pumper trucks and two have ladder trucks.

The sixth Carlsbad station was built in 2003 at the Regional Airport, and is fully staffed to handle the numbers and types of commercial flights that use it. The fire department is working on a plan to build a new, larger station to replace Fire Station #1.

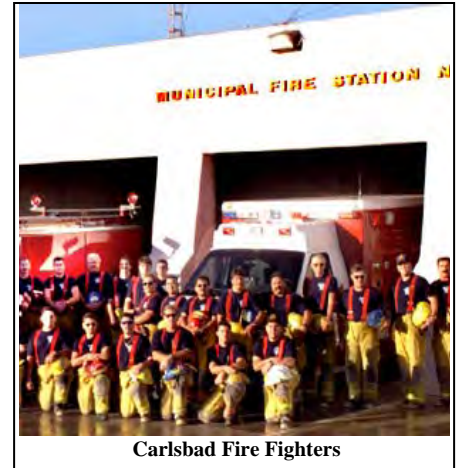
Fire protection service within the city boundaries is provided by the City of Carlsbad. Volunteer stations provide fire protection service outside the city's boundaries. The City Fire Department has a mutual aid agreement with these volunteer stations. This allows the City to depend on the volunteer stations to respond to emergencies that are located too far away for a City station to respond quickly.

The fire department employs 45 full-time firefighters (15 on each shift) and five staff.

One widely accepted measure of the level of fire protection in a community is its Insurance Services Office (ISO) rating. The ISO rating system is standardized and implemented nationally; it affects, among other things, the rates residents and business owners pay for fire insurance on real property. ISO ratings range between 1 and 10, with 1 being an excellent rating and 10 being a poor rating. Carlsbad's current ISO rating is 4, which is an improvement over the rating of 5 it received during the previous comprehensive plan update. The department hopes to improve its rating even further this year based on recent changes that were made:

- Improvements to the dispatch center and water system infrastructure
- Addition of another larger ladder truck and replacement of an older pumper truck
- Increased staffing (6 people) to man the airport station and ladder truck as well as an additional training officer
- Request for more firefighters

The ISO range, or appropriate area of coverage, is 1.5 miles for a pumper truck and 2.5 miles for a ladder truck. In some areas of Carlsbad there is redundant pumper station coverage, and in other areas there is no coverage. Given the high cost of building capital facilities for fire protection, this is not uncommon. However, if areas just outside the northern city boundaries are to develop as envisioned in the Land Use chapter, the fire protection level of service will need to be increased for those areas.



Carlsbad Fire Fighters

2. Police Service

The Carlsbad Police Department provides service within the city boundaries. The Eddy County Sheriff's Department provides police protection outside the city boundaries. The City Law Enforcement Center is centrally located near downtown Carlsbad, in close proximity to the Fire Department. The Police Department recently moved its community services function into a newly renovated facility.

Although Carlsbad's police department is authorized to employ 54 sworn officers, it currently only employs 48, equaling a ratio of 1.83 sworn officers per 1000 residents.

The International Association of Chiefs of Police (IACP) is a nonprofit membership organization of police executives whose mission is to advance professional police services; promote enhanced administrative, technical, and operational police practices; and foster cooperation and the exchange of information and experience among police leaders and police organizations throughout the world.

IACP has long been recognized for its preeminence in the field of patrol staffing, deployment, scheduling, and productivity.

In the past, IACP recommended a standard of four sworn officers per 1000 persons; however, the results of further analysis conducted on performance throughout the years have changed IACP's position on staffing standards.

Today, IACP contends that ratios such as the number of officers per 1,000 population, are inappropriate as a basis for staffing decisions because they fail to effectively measure performance. Furthermore, because each community has its own unique characteristics, it is also not particularly useful to make comparisons with other communities.

Rather, staffing decisions should be made based upon actual workload. Once an analysis of the actual workload is conducted, the amount of discretionary patrol time can be determined, consistent with the City's ability to fund.

3. Carlsbad Parks and Recreation

Carlsbad has an abundance of public parks and open space. It has 34 parks, totaling nearly 1,300 acres of land. Figure 12 shows the location of all the parks. There are various types of parks, including softball and baseball fields, soccer fields, tennis courts, racquetball courts, basketball courts, a 9-hole par three golf course, a shooting range, and numerous neighborhood parks with playground equipment.



Lake Carlsbad, the body of water formed by the Pecos River that runs along the city's northeastern side, is a special amenity and offers a beautiful riverside setting for parks and recreation. Among the riverside parks are:

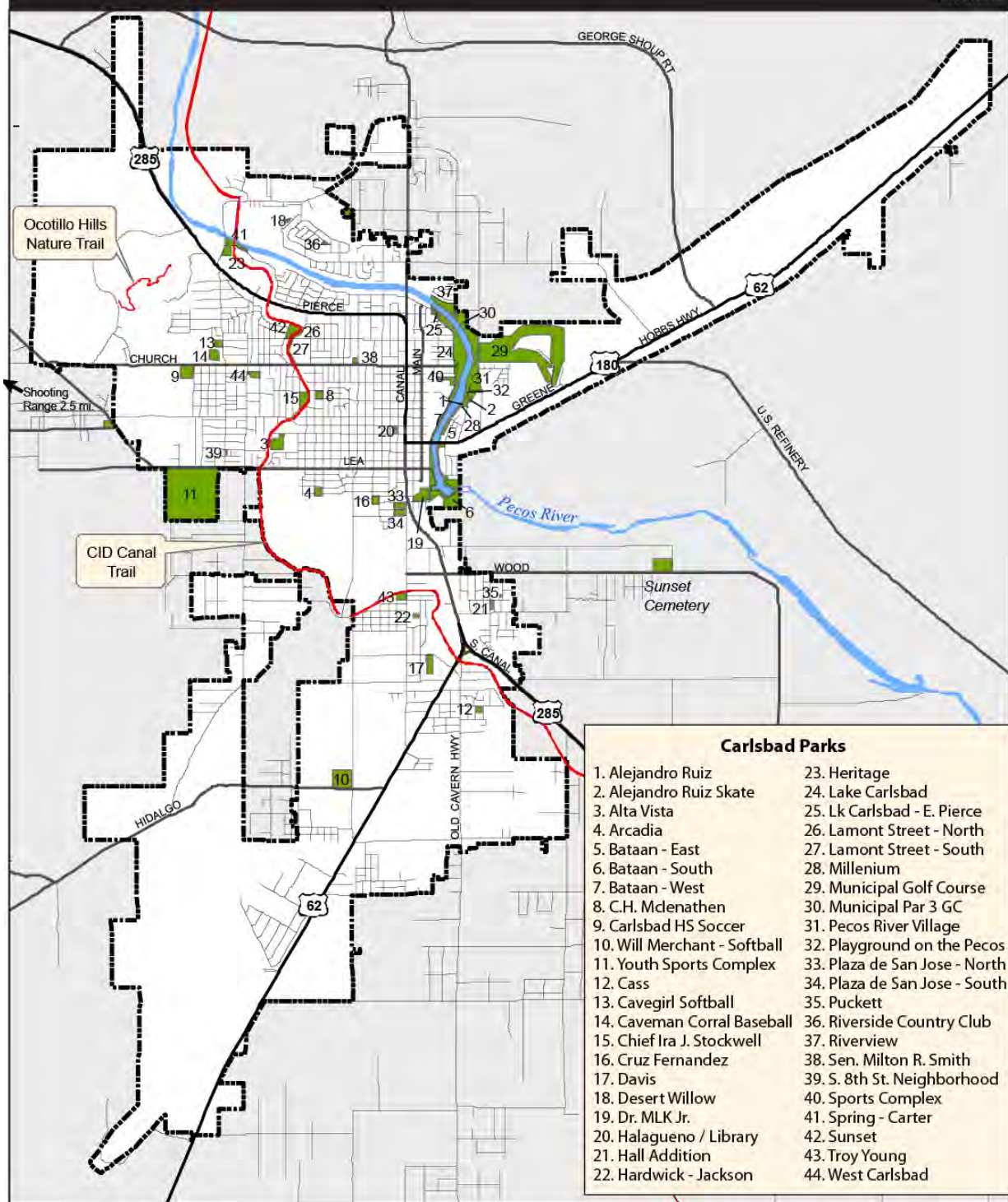
- **Lake Carlsbad Recreation Area** – a 125.6-acre park that winds its way along the Pecos River from the railroad bridge south to the Upper Tansil Dam. It features boat docks, a swimming area, the Beach Bandshell, playground equipment, barbeque grills, tables, and restrooms.
- **Lake Carlsbad Municipal Golf Course** – 146-acre, 18-hole golf course and a Par 3 course that runs along the river at Muscatel Avenue.
- **Pecos River Village Recreation Area** – located along the east side of the river, this area encompasses the Conference Center, the Riverwalk Recreation Center and the Playground on the Pecos. The playground features 15,000 square feet of towers, swings, and slides. The Recreation Center provides basketball and racquetball courts, activity rooms, pool tables, foosball, ping pong, and an outside skate park and roller hockey rink.
- **Riverview Park** – a 7.2-acre park at the north end of town along the lake which provides three large covered picnic shelters with tables and restroom facilities.

Other specialty parks and recreation facilities include the Riverwalk Recreation Center, Lake Carlsbad **Tennis Complex** which houses three racquetball courts, a tennis shop and restrooms. In addition, the recently constructed **Bob Forrest Youth Sports Complex**, located at W. Lea Street, is home to six full-size youth softball fields, four full-size youth soccer fields, one football field, two junior-senior baseball fields, and four little league baseball fields. The fields are used year round for youth recreation league play, tournaments, and other special events. The area is equipped with a large concession facility, large restrooms and playground equipment. A central parking area accommodates multiple events simultaneously.

In addition, a 645-acre **Shooting Range/Action Sports Complex** is located approximately 2.5 miles north of Happy Valley on the east side of the truck by-pass leading to the Artesia Highway (US 285). It offers four trap ranges, a pistol range, small and large-bore rifle ranges, silhouette rifle and pistol ranges, a muzzle loader range, black powder range, an archery range, cross-wind runways for radio-controlled model airplanes, a competition go-cart track, picnic areas and restrooms.

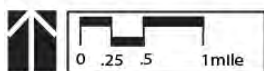
Figure 12. Existing Parks and Recreation

May 3, 2012



Source: City of Carlsbad, Eddy County GIS

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



LEGEND

- Parks
- City Boundary

Prepared by:



A recent addition to the parks system is the new **Dog Park** along the river at E. Lea Street. The fenced, linear 1.5-acre park offers a safe space for pets and their companions to play and relax under shade trees and canopies or sit on benches. The park provides an area for large dogs as well as a separate area for smaller dogs. A full agility course and water are also available.

Trails

Carlsbad offers two walking, jogging and biking trails. The longest is the Dark Canyon Trail, a 6.5-mile, 5-foot wide asphalt recreational trail along the Carlsbad Irrigation District Canal. Spanning the city, the trail can be accessed from several cross streets along the way.

The Ocotillo Nature Trail is a shorter trail, 2-plus miles in length, that traverses the hillside between Skyline Drive and NM State University-Carlsbad, crossing US 285 and connecting to the jogging and biking trail. It is a scenic hike, highlighting many native plants and wildlife. A scenic overlook parking area at the top of the trail offers a view of the entire city.



New Dog Park

Swimming Facilities

Other than swimming in Lake Carlsbad at the park, the public also has access to an indoor natatorium at the local high school.

Park Standards

For Carlsbad to continue providing the most efficient and adequate parks, recreation, and open space facilities for its residents, it is recommended that a set of standards be implemented. Although there is no longer a fixed national standard regarding the number of acres of parkland per person, the National Recreation and Park Association (NRPA) has developed a set of guidelines for parks, recreation and open space development that are intended to help guide local governments. The NRPA recommends that each community determine its own appropriate standard, tailored to an appropriate range, quantity and quality of recreational facilities.

Table 10 details the NRPA's recommended guidelines for various park types. These standards include minimum park size, and the recommended acreage per 1,000 people (by park type).

Table 10. NRPA Guidelines for Various Park Types

Park Type	Service Area	Park Size (acres)	Recommended Acres per 1,000 People	Current Acres per 1,000 people	Needed Acres per 1,000 People (2010 population)	Needed Acres per 1,000 People (2030 population)
Mini-Park	¼ mile	≤1	0.25—0.50	0.09	0.16—0.41	0.18—0.43
Neighborhood	½ mile	1—15	1—2	2.43	Meets guidelines	Meets guidelines
Community	1+ mile	15—25	5—8	10.07	Meets guidelines	Meets guidelines
Regional	2+ mile	25+	10+	37.29	Meets guidelines	Meets guidelines
TOTAL			16.25—20.50	49.88	Meets guidelines	Meets guidelines

Carlsbad has approximately 1,300 acres of parkland. In calculating the ratio of parkland per 1,000 people for Carlsbad, it is important to note that the estimated 2010 population of Carlsbad is 26,138 persons (US Census Bureau). Based on this population, the following equation was used to calculate the city's ratio of parkland:

$$\text{Acres per 1,000 people} = \text{Total Park Acreage} \div (\text{Population} \div 1,000)$$

$$= 1,303.85 \text{ acres} \div (26,138 \div 1,000)$$

$$= 49.88 \text{ acres per 1,000 people}$$

Based on the NRPA guidelines included in Table 10 above, the recommended minimum acres of parkland per 1,000 persons for the city's current population is 16.25 to 20.5 acres per 1,000 persons. With an average of 49.8 acres of parkland per 1,000 persons, Carlsbad currently has more than twice the NRPA-recommended minimum guideline for overall park acreage. While the City falls a little short on the recommended acres of mini-parks, it more than makes up for this in extra acres of other types of parks.

Based on an estimated 2030 population of 32,013 drawn from the Eddy County 40-Year Water Master Plan, Carlsbad still has ample parkland in its existing inventory to meet the NRPA recommended guidelines.

Table 11 includes a description of all of Carlsbad's park facilities.

Although Carlsbad has an abundance of parkland, the parks will decrease in value to residents if they are not maintained. The parks are maintained by the Parks Department, which has implemented a replacement schedule for playground equipment. The City is actively replacing antiquated equipment and upgrading parks annually. Since 2000, the City has been devoting \$20,000 to \$40,000 a year to upgrade the parks.

Table 11. Carlsbad Parks Inventory

Park Name	Size	Park Type	Location	Amenities
Alta Vista Park	15 acres	Community	west of Alta Vista Middle School	3 Baseball fields 1 Senior Little League baseball field
Arcadia Park	4 acres	Neighborhood	1300 block of Alvarado/Ortega Streets	Playground equipment 1 Basketball court
Bataan Recreation Area	46 acres	Regional	Both sides of the Pecos River from the Tansil Dam to the Lower Tansil Dam	Shades structures Boat docks Ball fields
C. H. McLenathen Park	3 acres	Neighborhood	North Maple/West McKay/West Hagerman Streets	3 playing fields, playground equipment and a basketball court
Carlsbad Softball Complex/Will Merchant Park	21 acres	Community	Hidalgo Road and South Boyd Drive	4 lighted softball fields Restroom facilities Small playground area Off-street parking
Cass Park	1.9 acres	Neighborhood	Kuykendahl and Russell Streets	Basketball court Playground equipment
Chief Ira J. Stockwell Park	5 acres	Neighborhood	Along the irrigation canal on First Street NE	2 softball fields 1 practice field
Cruz Fernandez Park	3 acres	Neighborhood	Pompa Street and Chavez Street	Playground equipment Basketball court
Davis Park	9 acres	Neighborhood	Kircher Street and Davis Street	Playground equipment
Hardwick/Jackson	1.6 acres	Neighborhood	Carver Street	Playground equipment
Hall Addition Park	1.5 acres	Neighborhood	North Street between Primrose and Wildrose Street	Playground equipment Parking area
Heritage Park	3.6 acres	Community	Callaway Drive on the south side of the Pecos River	Picnic shelter Eddy House
Lake Carlsbad Tennis & Racquetball Complex	1.9 acres	Community	700 Park Drive	9 Tennis courts Tennis Shop 3 Racquetball courts Restroom facilities
Lake Carlsbad Recreation area	125.6 acres	Regional	Along the Pecos River from the railroad bridge to the upper Tansil Dam	Playground equipment Barbecue grills Tables Restroom facilities Boat docks Swimming area Beach Bandshell
Lamont Street Park	4.9 acres	Neighborhood	Lamont Street between Church Street and the Northgate Shopping Center	Paved walking path

Park Name	Size	Park Type	Location	Amenities
Carlsbad Youth Sports Complex	158 acres	Regional	3001 W. Lea Street	6 Youth softball fields 4 Youth soccer fields 1 Football field Baseball fields Concession facilities Restroom facilities Parking area
Lake Carlsbad Municipal Golf Course	146 acres	Community	Muscatel Avenue	18 Hole golf course Pro shop
Desert Willow Park	1.6 acres	Neighborhood	1612 Desert Willow Drive	Playground equipment
Pecos River Village Recreation Area	23.3 acres	Community	East side of the Pecos River on Muscatel Avenue	Conference Center Recreation Center Riverwalk Playground equipment
Puckett Park	0.21 acre	Mini-Park	East of Puckett School	Playground Equipment
Plaza de San Jose	7.5 acres	Community	San Jose Boulevard Plaza Street and DeBaca Street	Band stand Covered gazebo Playground equipment
Riverside County Club Park	1 acre	Neighborhood	Bryan Circle and Park Street	Playground equipment
Riverview Park	7.21 acres	Neighborhood	North of Lake Carlsbad between the railroad tracks and Municipal Golf Course	3 Large picnic shelters Tables Restroom facilities
Senator Milton R. Smith Park	2 acres	Neighborhood	North Mesa and West Church Streets	Playground equipment
Senior High School Baseball and Softball Park	13 acres	Community	North 8th Street east of the Carlsbad High School Football Stadium	Lighted baseball fields Lighted softball fields
South 8th Street Neighborhood Park	0.82 acre	Mini-Park	8th Street at Florida Street	Playground equipment Lighted basketball court
Carlsbad Spring Park/ Carter Park	27 acres	Community	Northwest end of Lake Carlsbad on the south side of the Pecos River	Natural habitat area
Sunset Park	5 acres	Community	Blodgett and Solana Streets	4 Baseball fields Playground equipment Lighted basketball court
Troy Young Community Park	6 acres	Neighborhood	San Jose Boulevard	Basketball court Tennis court Playground equipment
West Carlsbad Recreation Area	4 acres	Neighborhood	N. 5th Street	Tennis courts Basketball courts Volleyball court Playground equipment
Dr. Martin Luther King Jr. Memorial Park	7.9 acres	Neighborhood	Canyon Street and Plaza Street	Playground equipment Covered picnic shelter

Park Name	Size	Park Type	Location	Amenities
Shooting Range/ Action Sports Complex	645 acres	Regional	2.5 miles north of Happy Valley Road	4 trap ranges Pistol range Small bore rifle range Large bore rifle range Silhouette rifle range Silhouette pistol range Muzzle loaders range Black powder range Archery range Cross-wind runways for radio controlled airplanes Go-cart track Restroom facilities Picnic areas Skate Park
Alejandro Ruiz Memorial Park	0.30 acre	Mini-Park	Adjacent to Playground on the Pecos	
Millennium Park	0.21 acre	Mini-Park	South of Riverwalk Recreation Center	Time capsule
Playground on the Pecos	0.80 acre	Mini-Park	Pecos River north of the Riverwalk Recreation Center	Playground Equipment Rock climbing areas

4. Senior Centers

The City has two senior centers.

North Mesa Senior Center is a 12,000-square-foot facility located in the northern part of Carlsbad. It is a recreational facility serving approximately 1,000 people per week. The facility was expanded in the last decade to include more meeting rooms and activity space. It provides many recreational opportunities for the adult citizens of Carlsbad ages 40 and above.

These services include a library, an exercise program, exercise equipment, dances with live music, a billiard room, ceramics with a kiln located on-site, bridge, and quilting. Many different clubs meet at the facility, including the American Contract Bridge Club and the Toast Masters Club. Organizations that use the facility to hold meetings must pay a nominal user fee.

San Jose Senior Center is located on the south side of Carlsbad. The Center provides recreational and human services for approximately 650 seniors. The San Jose Senior Center houses a kitchen facility and serves hot lunches to approximately 90 people daily at the center. In addition, approximately 150 meals are served to homebound seniors. Recreational services include line dancing, arts and crafts, games, ceramics, quilting, billiards, field trips, exercise programs, Spanish lessons and information on tax



Women exercising at North Mesa Senior Center



San Jose Senior Center

preparation and social security. The Center also assists seniors by checking blood pressure and sugar levels on set days.

An issue regarding the future of the senior centers is the increasingly older population of Carlsbad. The median age was 35.1 in 1990, 37.7 in 2000 and 39.4 now. Carlsbad is becoming a prime place to retire (Tripp Umbach & Associates, 1999) and the senior population is the target of recruitment efforts by economic development organizations in the city. As the proportion of senior residents expands, senior centers and medical services will continue to experience greater demand for services.

The City, in conjunction with Southeast New Mexico Community Action, currently provides transportation and meals to seniors. The San Jose Senior Center would like to see more meals provided, such as breakfast and dinner, and meals on the weekends. Also needed at the San Jose Senior Center is more space for parking as well as larger exercise and crafts areas. The exercise area would be enhanced by additional equipment to better accommodate the number of existing users.

Adult Day Care

The City of Carlsbad recently built a new facility to provide adult day care for seniors unable to care for themselves at home during the day due to impairment from milder forms of dementia or other disabilities. It was established in the new Cascades private development on the west side of the river. It can provide care for 25 clients at a time. The facility was envisioned to be an initial phase of a new consolidated senior center.

5. Cultural Facilities

Carlsbad Public Library

The Carlsbad Public Library is centrally located in downtown Carlsbad at 101 S. Halagueno. The library houses 60,000 items, including books, videos, audios, CD-Rom reference volumes, computer software, state government documents, and on-line periodicals. If an item is not available at the Carlsbad Public Library, a patron can borrow it through an inter-library loan service. The library also provides many services for the city including children's programs, reference services, and Internet connection. It also has a Children's Department and provides youth programs such as preschool story times, holiday programs, summer reading programs, and joint programs with the museum. Adult services include author presentations and book signings, and historical programs.



The Carlsbad Public Library

The Carlsbad Library has room to increase the number of items it holds. The librarians indicated that the library could use more computers for the patrons to use. Too often, patrons must wait for a computer.

Carlsbad Museum and Art Center

On the southern end of the library is Carlsbad's Museum and Art Center. Outside the Museum and the Library are bronze statues, the work of artist Glenna Goodacre. The Museum's permanent displays focus on local and regional history, Native American art and artifacts, and modern, contemporary and Southwestern art. As a regional art center, the Museum also offers temporary exhibitions of the work of contemporary artists and craftspersons. It hosts annual school exhibitions, a quilt show, and two area art exhibitions in the spring and fall. The Museum has a gift shop, and admission is free. The Amigos is a membership organization that supports the museum through contributions. The year 2011 marked the 80th anniversary of the museum.



Carlsbad Museum and Art Center Sculpture

Pecos River Village Conference Center

The City's civic center is located on the Pecos River, close to many amenities such as the golf course, the caverns, and accommodations. It contains five rooms and a Colonnade, totaling about 7,700 square feet—enough room to accommodate over 350 people. In addition, the conference facility has a Pavilion that is 3,444 square feet and a room called the Carousel that is 5,344 square feet.

The conference center has a 45-foot riverboat that can be rented to hold business meetings, and a ropes challenge course and volleyball courts for teamwork. The Pecos River Village Conference Center provides a level of service that is more than adequate for a small city. There is an abundant amount of square footage and a wide variety in the types of rooms available.



The Pecos River Village Conference Facility. The River Boat is located on the left in the picture.

Walter Gerrells Performing Arts and Exhibition Center

Located along the National Parks Highway, this center is one of the largest entertainment facilities of its kind in southeastern New Mexico. It can seat more than 2,000 patrons and offers a 60-foot-wide stage with easy loading access doors that can host a wide variety of talent. Previous headliners have included Randy Travis, Willie Nelson and the NM Symphony Orchestra. Its Exhibition, Banquet Hall and lobby combined are approximately 14,000 square feet and can seat up to 699. This part of the center hosts events such as wedding receptions, banquets and art fairs.

Cave and Karst Museum

The National Cave and Karst Research Institute is a non-profit government-supported institute headquartered in Carlsbad. It was established by Congress in 1998 to further the science of speleology. Its goals are to conduct, support, facilitate, and promote national and international programs in cave and karst research, education, environmental management, and data acquisition and sharing of cave and karst landforms. The institute and museum, located in the new Cascades development near the river and east of the railroad, is the newest addition to Carlsbad's cultural facilities.



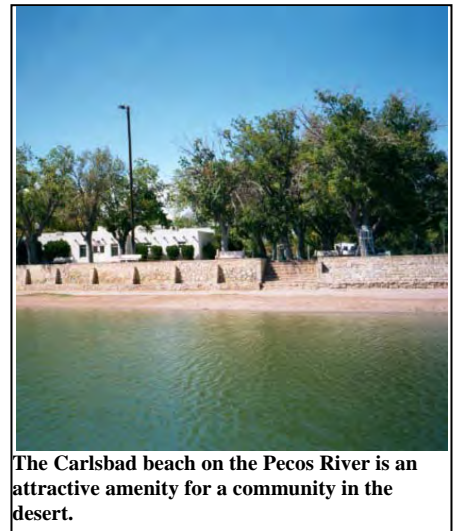
National Cave and Karst Research Institute

B. Goals and Strategies

The citizens of Carlsbad value their community services and would like to see improvements to them. Since 2000, the City has been responding to residents' wishes for improvements to playgrounds by devoting \$20,000 to \$40,000 annually to upgrades. Construction of the Youth Sports Complex and hiking trails responded to calls for improving sports facilities and wilderness and hiking trails.

The most recent community survey conducted by the Long Term Planning Committee, appointed by Mayor Janway, continued this theme, advocating improvements to the Riverwalk Center such as lighting and indoor soccer, expanding parks and features, improving the golf course, adding a specific night driving range, and updating the Parks Master Plan. Extending and building new walking, biking and skating trails and paths also were mentioned frequently. Respondents also called for upgrading the beach area along the river and building a community swimming pool or water park.

Related to public safety, citizens suggested setting a curfew for minors, addressing the problem of dogs running loose, and developing sufficient space for law enforcement, the jail and the court system.



The Carlsbad beach on the Pecos River is an attractive amenity for a community in the desert.

Community Services Goal 1: Carlsbad will provide a level of fire, police and emergency medical services sufficient to protect the public’s health, safety and welfare.

- Strategy a. Plan for the acquisition of sufficient capital equipment and space for the fire department.
- Strategy b. Prioritize new facilities for parts of the city that are in need of better response times.
- Strategy c. Consider siting requirements and acquisition of fire facilities in developing annexation policies.

Community Services Goal 2: Carlsbad will provide good quality parks and recreation services for all city residents.

- Strategy a. Expand and enhance parks and recreation services as necessary to ensure equitable access and ADA-accessibility for all residents.
- Strategy b. Continue to offer and maintain a wide range of parks and recreation activities to meet the diverse needs in the community.
- Strategy c. Ensure that parks and recreation services and facilities maintain the level of maintenance, safety, and structural integrity necessary to safeguard the public safety and welfare.
- Strategy d. Update the Parks and Recreation Master Plan every five years.

Community Services Goal 3: Carlsbad will anticipate the changing needs of the community and ensure that it plans for and seeks funding to build or create new services and facilities to meet those needs.

- Strategy a. Monitor use of community services and collect data to assess the changing needs of the community.
- Strategy b. Continue to build new facilities and offer new recreational activities to meet the changing needs of the community, particularly seniors, young adults, and tourists.
 - Plan for less active forms of recreation and access to social services for the rising elderly population.
- Strategy c. Plan for the capital needs of parks, senior citizen centers, and the library, museum, and conference center in the same manner as for other critical services.

C. Implementation

Carlsbad provides a full array of community services and facilities. Planned improvements for the Police Department and the Fire Department will help those services surpass the level provided in many New Mexico communities. Economic development imperatives, especially those related to tourism, may result in Carlsbad's having to provide superior quality community service across the board.

Implementation of Carlsbad's goals and strategies begins to take shape during the Infrastructure Capital Improvement Planning process. During this process, the City seeks input from its departments and the general public about projects that are needed to maintain, expand or replace its facilities and equipment. Costs of the projects and potential sources of funds are estimated—typically legislative grants, federal funding, loans and municipal bonds. The projects are approved and ranked by the City Council and delivered to the NM Department of Finance, where top ranked projects are considered during the state budgeting process. The ICIP process also focuses community attention on priority goals, needs and capabilities, provides a framework for decisions about community growth and development, and helps avoid crisis rate and tax increases.

Table 12 shows capital spending priorities for the years 2013 through 2017 for each community service that Carlsbad provides for city residents.

In addition to capital spending for community services, Carlsbad should develop a Parks and Recreation Master Plan. This plan will develop Carlsbad parks specifically to meet the needs of the community. It will address improvements to each park individually. Carlsbad's top ten community facilities projects on the ICIP list are:

- Youth Sports Complex – Continue building by constructing a walking track and adding more shade.
- Update park restrooms.
- Build a Consolidated Senior Center.
- Cemetery improvements.
- Park improvements.
- Remodel fire stations.
- Renovate Riverwalk Recreation Center to bring it up to health and safety standards.
- Construct a new fire station to replace Fire Station #1.

Over the next five years, the City plans for the following projects, provided adequate funding can be secured. The related Goal number follows each description.



The Pecos River and Lake Carlsbad Recreation Area.



Part of the trail system along the Pecos River in Carlsbad. Parks need a high level of maintenance to retain their value to the community.

Fire and Police: Now that the police department has adequate space, focus is on upgrading the fire stations and building a new one, Fire Station #7. Current plans are to remodel the former police department space to allow expansion for the fire department. Fire Station #2 will also be remodeled. The police department will receive upgrades to its fleet and video systems. (CSF Goal 1)

Parks: Funding requested for parks will cover lighting for the Hockey Skate Park and Halagueno Arts Park, design and construction of a new handball court, improvements to the 20-year-old Will Merchant softball complex, improvements to the walking-jogging Dark Canyon Trail, upgrading San Jose Plaza, and upgrading a irrigation, and upgrading and building new restrooms. (CSF Goal 2)

Golf Course: Planned improvements include landscaping and green renovation, and eventually building a new maintenance facility and a new pro-shop. (CSF Goal 2)

Riverwalk Recreation Center: The City will continue making improvements to this center to keep it in operating condition, such as adding a security camera to the indoor play area, replacing windows, and installing a security locking system. However, the building is old, not very energy efficient, and may have to be replaced in the future. (CSF Goal 2)

Shooting Range: Plans are to resurface and extend the track at Yucca Flats Raceway; design and construct ADA-compliant restrooms, a radio-controlled airport, and a skeet range; and expand the septic system, among other projects. (CSF Goals 2 & 3)

Pecos River Village Conference Center: Improvements will focus on installing security cameras on the perimeter, remodeling the entryway, repairing the roof and kitchen, and designing and constructing the Pecos River Village entrance. (CSF Goal 3)

Senior Centers: The City is hoping to eventually consolidate personnel and services into a new building to be located at the Cascades on a site near the Adult Day Care Center. (CSF Goal 3)

Library: Planned improvements include security lighting, landscaping, a computer center, new furniture and shelving, lobby renovation and improvements to the heating, ventilation, and air conditioning system (HVAC). (CSF Goals 2 & 3)

Museum and Fine Arts Facility: Wall coverings, track lighting, multimedia improvements, office construction, HVAC and ADA improvements are planned. (CSF Goals 2 & 3)

National Cave and Karst Institute: This facility is new but continued visitor improvements are planned.

Table 12. Community Services Infrastructure Capital Improvements Projects (pending funding)

	2013	2014	2015	2016	2017	Total
Fire	3,267,500	1,577,500	1,577,500	0	0	6,422,500
Police	300,000	371,000	0	0	0	671,000
Parks	803,000	487,000	1,144,000	1,123,500	305,000	3,862,500
Senior Centers	9,080,000	150,000	0	0	0	9,230,000
Museum	1,331,000	0	0	0	0	1,331,000
Library	1,900,000	0	0	0	0	1,900,000
Riverwalk Recreation Center	885,000	600,000	250,000	0	0	1,735,000
Youth Sports Complex	900,000	1,000,000	0	0	0	1,900,000
Golf Course	600,000	1,510,000	510,000	1,260,000	6,160,000	10,040,000
Pecos Village Civic Center	559,000	0	0	0	0	559,000
Veterans	2,000,000	1,100,000	0	0	0	3,100,000
Shooting Range	160,000	100,000	0	0	0	260,000
Lake Carlsbad Erosion	250,000	250,000	250,000	250,000	250,000	1,250,000
Cemetery	550,000	0	0	0	0	550,000
Walter Gerrells Perf. Cntr.	100,000	0	0	0	0	100,000

Chapter 7:

Water and Wastewater

This chapter of the plan focuses on municipal water resources and water, wastewater, and treated effluent utilities in the planning area. Water is a critical resource throughout the southwestern US, and Carlsbad is no exception. Through capital improvements planning, the City continuously manages its water supply and monitors, maintains, and improves the infrastructure of its water and wastewater utilities.

A. Existing Conditions

There has been significant recent resource and infrastructure planning in these areas. A new 40-year water plan for the City was completed in January 2011. The City also revised its water conservation, emergency response and drought management ordinance in 2011 and is updating its 1993 water conservation plan. In 2001, a Regional Water Plan for the Lower Pecos River Valley was completed. The City of Carlsbad, under the authority of Ordinance 2000-13, maintains and enforces a Wellhead Protection Program to protect the quality of its water supply and to keep it free from possible pollutants. The discussion describes the existing systems and programs, proposed projects and capital improvements priorities.

1. Water Resources

The City of Carlsbad has access to three water resources: sub-surface water located in the Capitan Reef and the Ogallala Reef and surface water from the perennial Pecos River.

The great Capitan Reef, a limestone reef formed millions of years ago, is the major geologic feature of the Carlsbad area and provides a reliable source of water. It is also responsible for the creation of the Carlsbad Caverns. Approximately 98 percent of Carlsbad's municipal water comes from nine wells drilled into the Capitan Reef Aquifer seven miles southwest of Carlsbad in an area called Sheep's Draw. The aquifer is a highly fractured and cavernous limestone

formation that curves through Carlsbad and into Texas. The portion of the aquifer mined by the City for use in the Carlsbad Municipal Water System is known as the Carlsbad Underground Water Basin. Two rural water cooperatives in the planning area also utilize water rights in the basin: the Otis Water Coop and the Happy Valley Water Coop.

Further to the east, the hydrologic formation known as the Ogallala Aquifer (a section known as the Lea County Declared Underground Water Basin) supplies water to the City-owned Double Eagle Water System from 11 wells near Maljamar in northwestern Lea County. These wells are 150 to 350 feet deep. The Double Eagle system serves the Ridgecrest Subdivision, Connie Road, Blackfoot Road, the Hobbs Highway Industrial Park area, Brantley State Park and the Waste Isolation Pilot Plant.

Carlsbad also holds significant surface water rights from the Pecos River. The flow in the river as it passes through Carlsbad results from springs in the Capitan Reef. Rights are principally authorized for agricultural irrigation, but the City also relies on the river as an important amenity. The City has committed significant resources to creating a linear river park, the Pecos River Park that surrounds and incorporates the Pecos River, and the Cascades at Carlsbad, a signature local economic development project, sited adjacent to the river.

The interstate Pecos River Compact requires New Mexico to acquire, either by purchase or lease, surface water rights on the river to meet the requirements of delivering water to Texas. Approximately 15 percent of the water supply in the Lower Pecos Valley is subject to delivery requirements. Because the City's surface rights have not yet been fully adjudicated, the City is affected by this requirement.

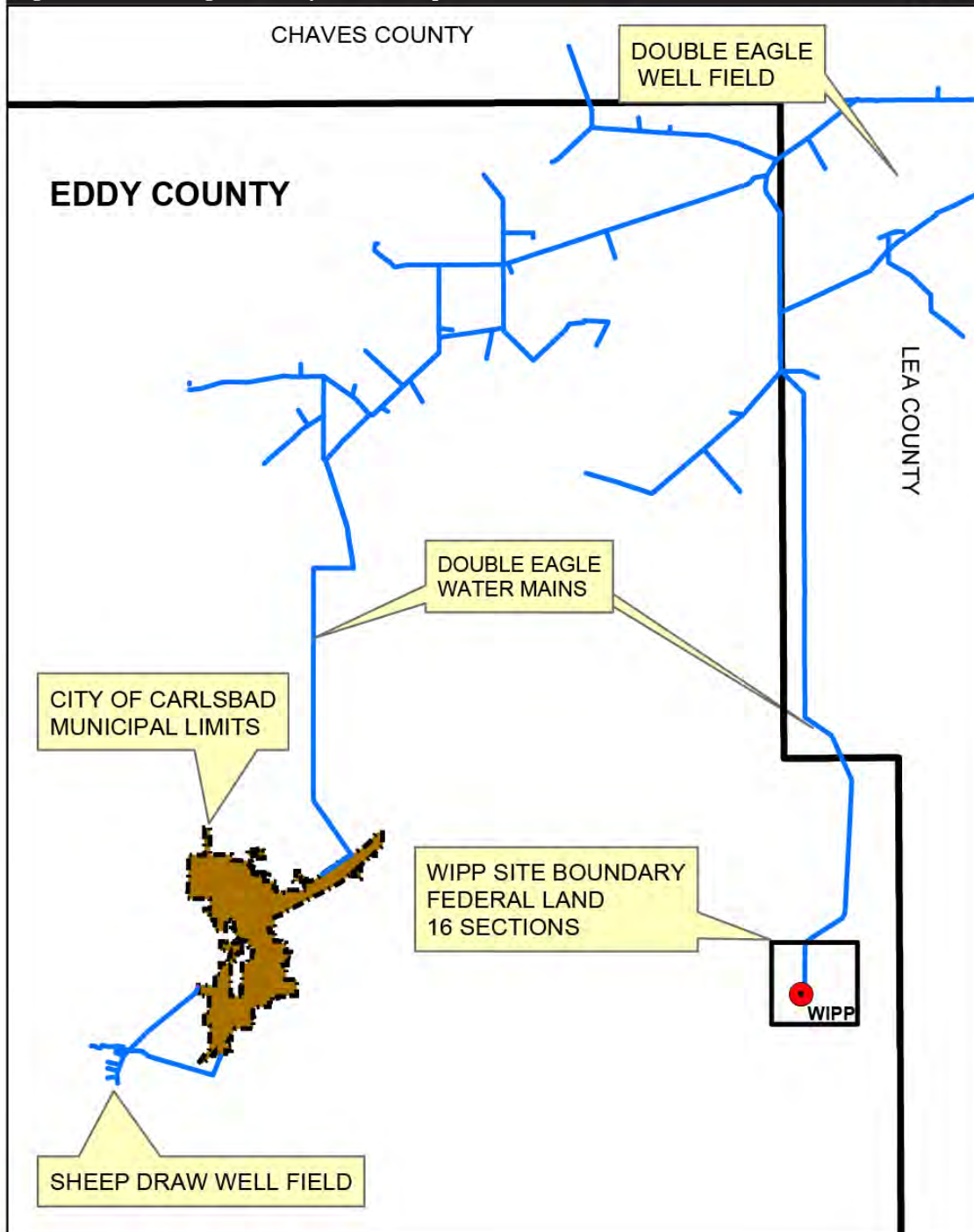
The status of two endangered species, the Pecos Bluntnose Shiner and the Pecos Pupfish (both species are fish) and the designation of the river as critical habitat may impact the City. Recovery plans include the provision of minimal river flows below the Brantley Dam, currently causing no detriment to the city.

2. Water Utilities

The Carlsbad Municipal Water System is owned and operated by the City of Carlsbad. The existing system that serves the City consists of nine wells, four ground storage reservoirs, three booster pump stations, seven pressure-reducing stations (PRYs), transmission pipelines and distribution water lines that comprise the Sheep's Draw well field and related facilities. Eight of the municipal wells in the Sheep's Draw well field are active and one is off-line. Another well has limited use due to high chlorides.

Figure 13. Double Eagle Water System & Sheep Draw Well Field





1-12-11



0 2 4 Miles

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

LEGEND

-  TRANSMISSION LINES
-  DOUBLE EAGLE - WATER MAINS
-  CITY LIMITS
-  COUNTY BOUNDARY

Prepared by:



CITY OF CARLSBAD
Engineering Department

While existing storage capacity is adequate to meet successive peak day demands in 2030, the supply capability is limited.

The City's recent update of its 1996 Water System Master Plan included developing a hydraulic model that could be used to analyze the water system performance under various conditions and could help define alternatives for improvement of the system to meet existing and future needs.

The City-owned Double Eagle water system is physically valved off from the Sheep's Draw well field-supplied system. One purpose of the updated Water System Master Plan is to evaluate the system improvements that would be needed to integrate the water supply from the Double Eagle system into the Carlsbad water system.

Other areas outside of the city are served by private water systems or by domestic wells.

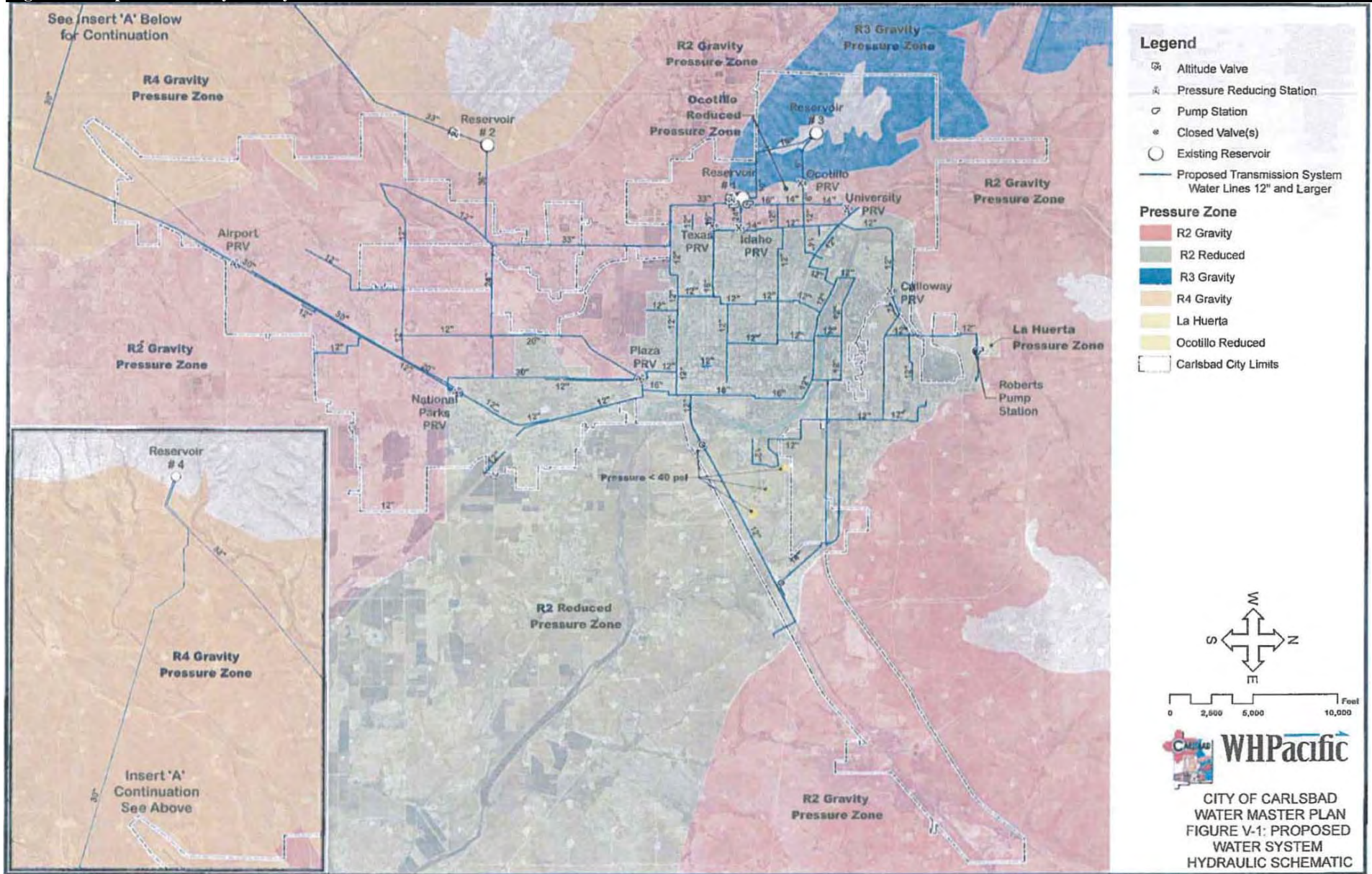
Figure 14 and Figure 15 show the existing water system and the system proposed in the draft Water Master Plan (WH Pacific 2012).

Within the developed areas of Carlsbad, municipal water service is nearly universal. The City also serves areas of adjacent unincorporated Eddy County, specifically the La Huerta area directly north of the central business district on the north side of the Pecos River. Residents outside the service areas of the municipal system or co-ops depend on domestic wells for potable water as regulated by the Office of the State Engineer.

The greatest potential for growth in the City's water service areas comes from the Happy Valley and Otis Water Co-ops. If either or both of these systems experiences difficulty—as the La Huerta Co-op did—in continuing to meet the service needs of subscribers, they may seek to be acquired by the City or to have the City sell them water on a wholesale basis. The City already wholesales water to the Otis Water Co-op. Both the Otis Water Co-op and the Happy Valley Co-op are in the position of needing to secure additional water rights if they are to serve additional subscribers. The State Engineer alleges that the Happy Valley Co-op has diverted water in excess of its rights, despite the Co-op's having acquired additional rights from Eddy County.



Figure 15. Proposed Water System Hydraulic Schematic



3. Wastewater Utilities

Sewer service is limited to areas within Carlsbad's municipal limits and is not universally available. Residents of unincorporated Eddy County and Carlsbad City outside of the service area rely on septic systems regulated by the New Mexico Environment Department, which has established a minimum lot area of 0.75 acres as a requirement for septic system use.

The City is currently designing and constructing major upgrades to the wastewater treatment plant. Extensive repairs were required to meet current EPA standards for health and safety.

The City has identified needs for upgrades and rehabilitation of sewer lines, lift stations and other facilities throughout the system that require attention due to age, condition and compliance with current regulations. Line extensions are planned to serve the southeast part of the city along the National Parks Highway and Old Cavern Highway.

4. Water Conservation and Effluent Reuse

The Carlsbad area has been in a period of prolonged drought. The City has put several policies in place to conserve water and plan for drought. The City's Water Conservation, Emergency Response and Drought Management Ordinance sets out voluntary conservation measures for individuals and businesses, and specifies water rationing measures for three stages of drought based on the aquifer level and chloride concentration in City wells.

The City has also implemented an effluent reuse program. The Lake Carlsbad Golf Course and Riverview Park are watered primarily by treated effluent from the wastewater treatment plant. The Youth Sports Complex is irrigated from non-potable water wells. The City is working to increase the use of effluent on other public parks.

B. Issues and Community Suggestions

1. Water Supply

Water remains a highly valued and highly contested commodity in the planning area. Carlsbad's past and its future are linked to the provision of water resources and utilities for agricultural, industrial, and residential uses. While the City of Carlsbad ultimately relies on

ground water for its municipal uses, hydraulic connections between the aquifer and the river, which are impacted by interstate agreements and federal pre-emption, result in a critical concern around water resources.

Nevertheless, acquiring additional subsurface water rights remains a possibility, and the City has effectively managed its utilities and planned for resource conservation. The City has been reluctant to require either annexation or the surrender of domestic water rights as a condition of municipal water service provision. New Mexico communities commonly use both of these tools to manage the fiscal impacts of both service provision and resource allocation.

The area surrounding Carlsbad is experiencing severe to extreme drought, with precipitation in 2011 at less than 40 percent of normal. Water conservation is one of the City's major goals.

2. City Utilities

Expansion of the City's water and wastewater systems is a high priority expressed by the Economic Development Subcommittee of the Long Range Planning Committee. This expansion is seen as necessary for the community's continued growth.

In addition to expansion, the ongoing maintenance and upgrades of facilities and the capital priorities include improvements to the Double Eagle well field and waterline. Improvements to the Double Eagle and Sheep's Draw reservoirs and well fields are also priorities for meeting the City's current and future water supply needs.

3. County Utilities

The two remaining water cooperatives are located in unincorporated areas of Eddy County. The development in areas they serve has been largely unregulated and is generally poor. Both utilities appear to have limited capacity to deal with significant resource shortages and infrastructure failures. The septic systems they rely on for wastewater management are also subject to failure. These systems are designed to have a lifetime of 20 to 30 years under the best conditions. Eventually, the soil around the absorption field becomes clogged with organic material, making the system unusable. Relocation is not an option in any but the larger lot subdivisions. Saturated fields pose a public health problem and a potential hazard to subsurface water resources.

C. Goals and Strategies

Water and wastewater goals and strategies were identified principally through the work of the Long Range Planning Committee, conversations with City staff, and review of the 2013-2017 Infrastructure Capital Improvements Plan (ICIP) and the prior comprehensive plan.

Goal 1. The City of Carlsbad will provide an adequate municipal water supply and upgrade its water system to serve future growth.

Strategy a. Complete Double Eagle wellfield improvements and line extensions to introduce water from the Double Eagle wellfield into the City water system.

Goal 2. The City of Carlsbad will secure water rights as necessary and as they become available to support economic development and community growth.

Strategy a. Secure additional subsurface rights in the Carlsbad Underground Water Basin as they become available.

Strategy b. Adjudicate City of Carlsbad surface water rights on the Pecos River in order to secure those rights for use in times of water emergencies.

Strategy c. Adopt water rights acquisition policies related to subdivision and annexation to ensure adequate water rights to serve anticipated growth.

Goal 3. The City will strive to achieve a ten percent reduction in water use through conservation over the next ten years.

Strategy a. Continue to implement water conservation measures for City projects, including effluent reuse at the golf course and city parks and efficient irrigation of landscapes at City facilities.

Strategy b. The City Council, Board of the Water and Sewer Commission and the Mayor's office will work with staff and the City administration to develop a water conservation plan that details how individuals, businesses and government agencies can implement best practices in water conservation.

Strategy c. Continue to encourage voluntary water conservation by Carlsbad residents, including xeriscaping and use

- water-efficient fixtures (shower heads and toilets), especially in new construction and remodeling of homes and offices.
- Strategy d. Continue public education regarding the water conservation and drought management measures described in the Water Conservation, Emergency Response and Drought Management Ordinance.
- Strategy e. Secure financing to expand the City's treated wastewater effluent reuse program.

Goal 4. The City will maintain and upgrade its wastewater treatment and collection systems.

- Strategy a. Complete upgrades to the wastewater treatment plant.
- Strategy b. Complete system rehabilitation and upgrades as identified in the City's Wastewater Facilities Plan.

Goal 5. The City will manage new development and mitigate the impacts of prior unregulated development within and adjacent to the City's planning and platting area, including areas served by rural water co-ops.

- Strategy a. Expand wastewater services as finances permit to areas of the community not being served.
- Strategy b. Consider the costs and benefits of extending municipal services to non-city residents, especially to residents of adjacent unincorporated Eddy County who are likely to avail themselves of the full array of municipal services.
- Strategy c. Continue to implement existing extraterritorial zoning and subdivision authority within the subdividing and platting jurisdiction of the city as defined by state statutes.

Goal 6. The City will maintain current master plans and policies to ensure public health and safety related to water supply and water and wastewater infrastructure.

- Strategy a. Periodically update the City's 40-year Water Plan (2011), its Water Conservation Plan (1993), its Water Master Plan and Hydraulic Model (2011) and its Wastewater Facilities Plan and prioritize funding for these projects through the annual and five-year Infrastructure Capital Improvements Plan (ICIP).

D. Implementation

The City completed the update of its 40-Year Water Plan, a draft Water Master Plan, and a hydraulic model of the water system in 2011. These plans support the funding, design and construction of major improvements that are underway or in the City's ICIP.

Over \$127 million in water and wastewater capital improvements have been identified in the City's 2013-2017 ICIP. Projects to improve the Double Eagle Wellfield and Waterlines are citywide priorities #2 and #3, and renovation of the wastewater treatment plan is underway.

Table 13. 2013-2017 ICIP - Water System/Water Supply Improvements

Project Type	2013	2014	2015	2016	2017	Total
Equipment	\$ -	\$ -	\$250,000	\$ -	\$250,000	\$500,000
Maintenance and Rehab	\$2,599,766	\$6,894,256	\$3,608,414	\$8,183,067	\$423,273	\$10,011,693
System Improvements	\$36,921,106	\$4,319,414	\$3,215,521	\$3,663,038	\$9,627,550	\$57,746,629
Grand Total	\$39,520,872	\$11,213,670	\$7,073,935	\$11,846,105	\$10,300,823	\$68,258,322

Table 14. Wastewater System Improvements

Project Type	2013	2014	2015	2016	2017	Total
Equipment	\$300,000	\$200,000	\$ -	\$7,300	\$ -	\$7,300
Facilities	\$6,343,423	\$5,655,581	\$3,933,250	\$4,037,050	\$ -	\$9,969,304
Maintenance and Rehab	\$2,754,102	\$200,000	\$100,000	\$3,044,769	\$100,000	\$6,198,871
System Improvements	\$9,398,453	\$9,437,327	\$8,819,141	\$4,596,400	\$486,000	\$32,737,321
Grand Total	\$18,795,978	\$15,492,908	\$12,852,391	\$11,685,519	\$586,000	\$59,412,796

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Chapter 8:

Transportation

The transportation element of the Carlsbad Comprehensive Plan establishes a set of goals and objectives that will provide the City with direction as to the future development of the key transportation networks that exist in the area. These networks include air, rail, transit, pedestrian and bike transportation, and local and regional roads—all treated here as one system.

A. Existing Conditions

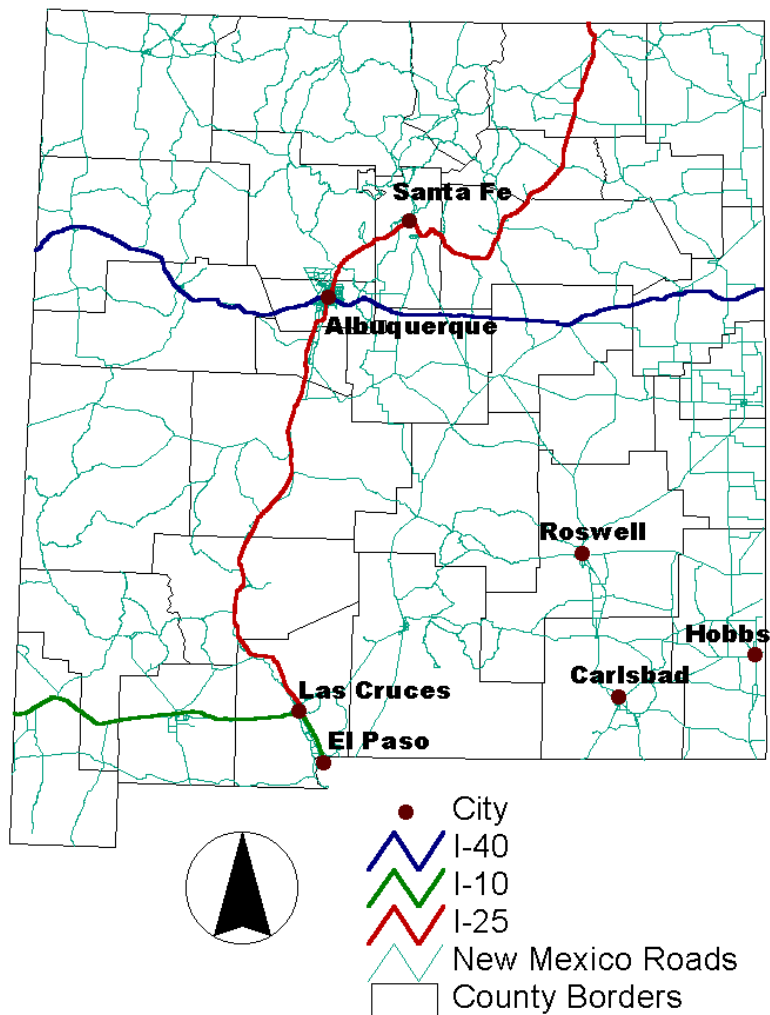
To describe the existing conditions, data were collected and reviewed from each of the transportation networks. Each system in this section is briefly summarized as to location characteristics and its available service.

1. Regional and Local Road Systems

Carlsbad is located at the intersection of US 62/180 and US 285. US 62/180 leads to the Carlsbad Caverns National Park, located south of the City. Carlsbad's location at the intersection of two major state highways has proven to be an advantage, making Carlsbad a regional crossroads.

Figure 16 on the following page provides a visual representation of the relationships between Carlsbad, other metropolitan areas in New Mexico, and the interstate highway system.

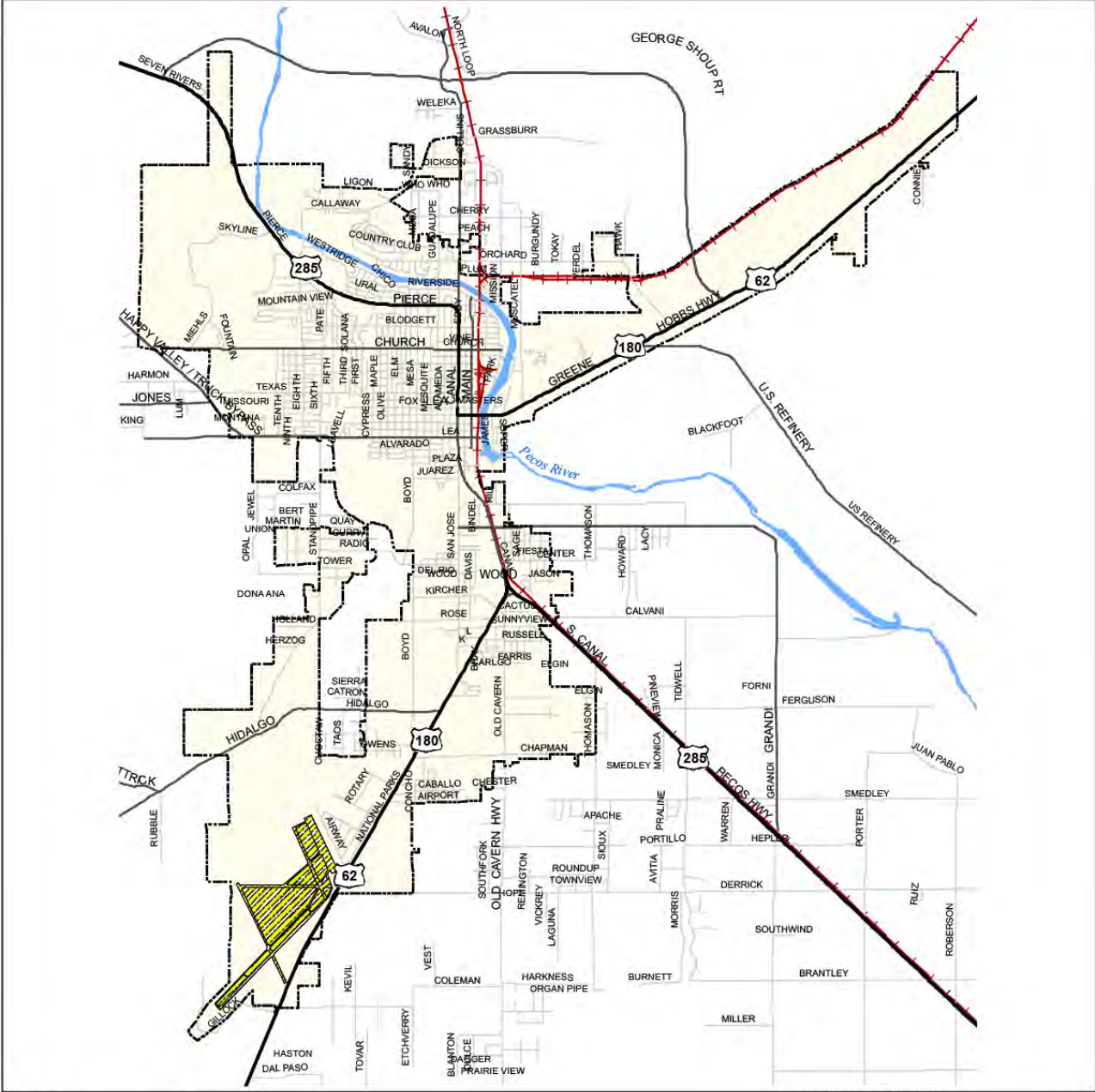
Regional truck traffic has been associated with unwanted nuisances within the city. Noise, motor exhaust, and added stress on roadway infrastructure cause unwelcome effects in the downtown area. The Waste Isolation Pilot Plant (WIPP) brought with it some transportation improvements. These include improvements to US 285 north of the city and the construction of a relief route that allows truck traffic, especially that carrying hazardous materials, to bypass the city from the north, connecting US 285 and US 62/180 east of the city. This loop, however, is not complete around the city. As a result, truck traffic headed south on US 285 must return to Carlsbad via Greene Street.

Figure 16. Vicinity Map

The transformation of US 285 and US 62/180 into principal arterial roads once vehicles enter the city is important to note. The state highway system complements the local road network, but also causes some conflicts between regional and local traffic. Within the city limits, the state highways are integrated into the local grid road pattern. The grid pattern west of the Pecos River provides an efficient network characterized by a high degree of accessibility and mobility. Figure 17 details the road network within the city.

Figure 17. Transportation Network

February 23, 2012



Source: City of Carlsbad GIS

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



LEGEND



Major Roads/Highways



Local Roads



Airport



Railroad

Prepared by:



Connectivity and accessibility east and north of the river is accomplished by three river crossings at Callaway Drive, Canal Street, and Green Street (US 62/180). Concerns over conflicts between river crossings and the railroad have been raised by Emergency Management Services (EMS), for whom accessibility is a major component of effective response time.

Railroad crossings in Carlsbad can be found at Green Street, Church Street, Blodgett Street, and Riverside Drive. All railroad crossings are at grade, and auto traffic is halted to provide rail traffic the right-of-way.

Local street maintenance and repair is guided by the PAVER automated system. A five-year plan and annual pavement improvement program are prepared by the Carlsbad Public Works Department and financially supported through several local, state, and federal funding sources. The City of Carlsbad makes local funds available for the street maintenance program through their infrastructure capital improvements program (ICIP).

Improvements to US 62/180 and US 285 are funded through the State Transportation Improvement Plan (STIP). Local streets that are encompassed by the state highways, and thus eligible for this funding, include Pierce Street, Canal Street, and Green Street east of Canal Street, Canyon Street, and National Parks Highway. Applications for funding are submitted to the Southeast Regional Planning Organization (SERPO) every year as a part of the New Mexico Department of Transportation (NMDOT) five-year plan update. The most recent project of this type is the reconstruction of Canal Street, with extensive storm drainage and landscaping improvements.

SERPO serves as the regional transportation planning body for southeastern New Mexico. It comprises eight counties, including Eddy County. SERPO meets four to six times a year and consists of a technical review committee and a policy review committee. The committees include representatives from each municipality and county within the region, including Carlsbad. These two committees are jointly responsible for reviewing, and submitting project applications to NMDOT.

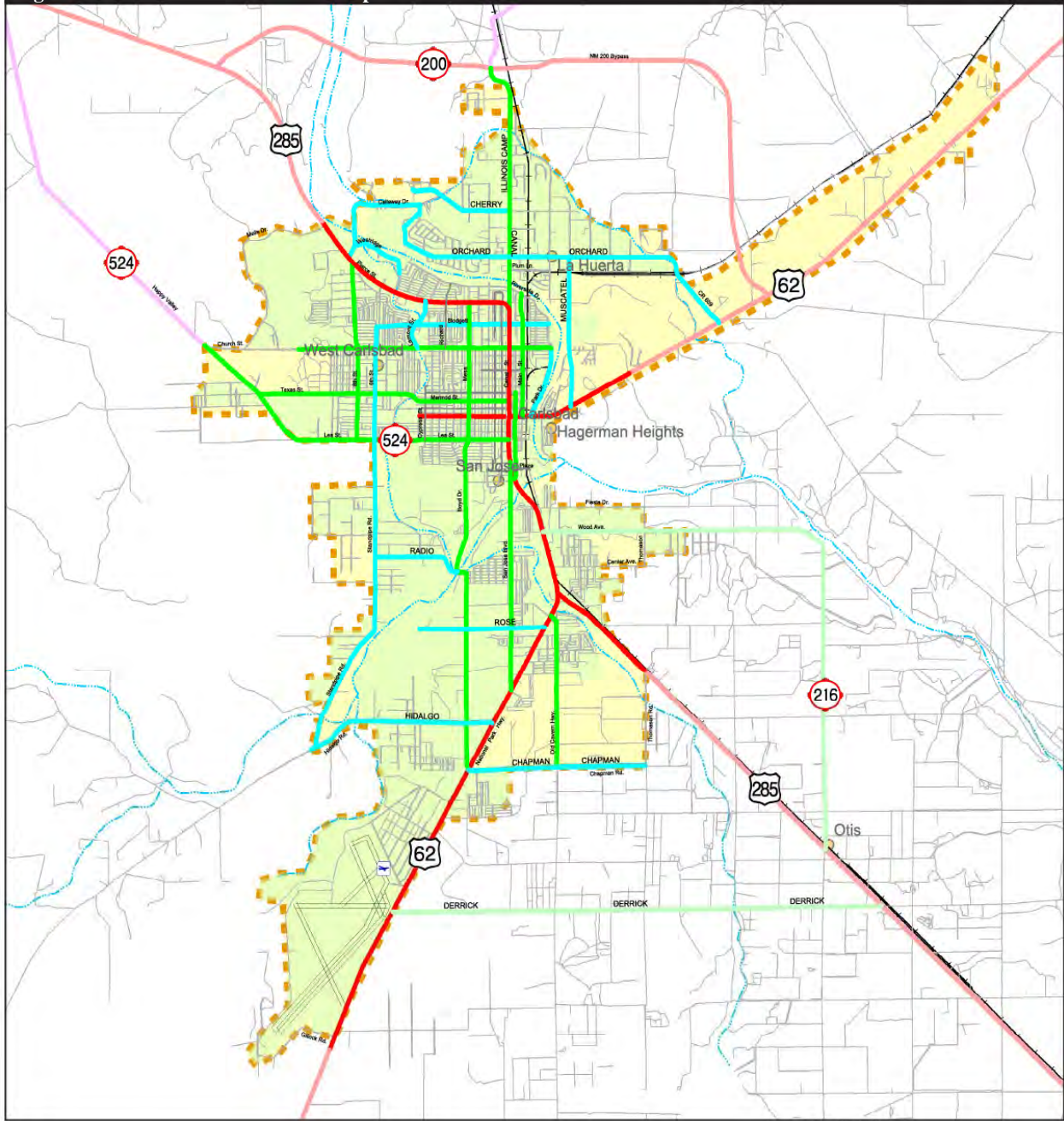
Traffic count data is available for state highways through NMDOT. Counts are available for Canal Street (US 285) north of Pierce Street. This stretch of roadway had average daily traffic of 10,313 vehicles in 2010. Since 2005, average daily traffic has ranged from 10,000 to 10,500. Average weekday traffic was 11,023 in 2010, and average weekend traffic was 8,363. Traffic volumes are fairly consistent year round, with the daily peak between 3 pm and 5 pm.



Construction on Canal Street

Figure 18. Functional Classification Map

3-1-2004



Source: City of Carlsbad

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



LEGEND

- Interch
- CENSUS 2000 UC
- TDUA2000
- reservoir
- Airports
- runways
- Counties
- Other Roads
- rail100k
- Drainage
- Cities, Towns & Villages
- INTERST URBAN
- INTERST RURAL
- PRIMARY ARTERIAL URBAN
- PRIMARY ARTERIAL RURAL
- MINOR ARTERIAL URBAN
- MINOR ARTERIAL RURAL
- MAJ COLLECTOR RURAL
- MAJ COLLECTOR RURAL
- MINOR COLLECTOR RURAL
- COLLECTOR URBAN
- LOCAL URBAN

Prepared by:



2. Transit

The Carlsbad Municipal Transit System (CMTS), established in 1996, provides public transit service within the city and portions of Eddy County immediately adjacent to the city. CMTS operates both as a dial-a-ride service and a fixed route service. CMTS currently has a fleet of 17 Maxi Vans, 14 of which are equipped with handicapped lifts. In 2011, CMTS averaged approximately 4,800 riders per month.

Carlsbad's fixed route transit system operates weekdays from 7:00 am to 5:45 pm along two routes. The Red Route has 15 stops and serves the northern portion of the city, while the Green Route has a total of 16 stops and serves the southern portion of the city.

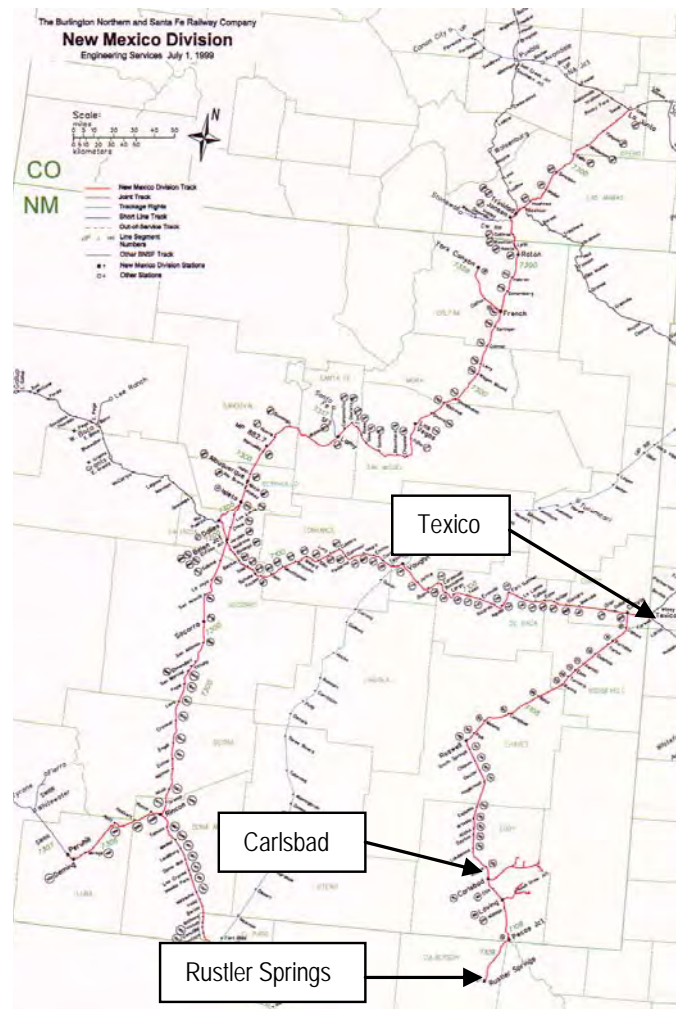
The current fare for the CMTS dial-a-ride curb-to-curb service is \$2 per trip per person with a 24-hour notice. Same day service is \$5 per trip per person. Passes are available for \$20 for a 10- trip pass. Fares for the fixed route are \$1, and a pass may be purchased for 10 rides for \$10.

The CTMS is funded by money from local, and NMDOT as well as federal programs such as the Section 5311 program, the 5317 New Freedom Program, and the 5316 Job Access and Reverse Commute program.

3. Rail

Rail transportation in Eddy County consists of a system of railroad tracks owned by the Burlington Northern Santa Fe Railroad Company (BNSF). The railroad network through Eddy County is a freight line designed to provide transport services to potash and other mining operations.

Southwestern Railroad is a short line customer that operates and maintains BNSF's 200 miles of tracks within the Carlsbad Division. Southwestern Railroad operates on a leased line of the BNSF between Clovis and Loving, including the Carlsbad and Loving industrial spurs. The Carlsbad Division begins in Clovis and ends in Carlsbad. The Carlsbad industrial spur extends 20 miles to the Intrepid Potash Mines, and the Loving industrial spur extends another 24 miles to the Mosaic Potash Mines. The Southwest Railroad handles approximately 30,000 carloads annually.



New Mexico Division of BNSF

4. Air

The Cavern City Air Terminal (CCAT) is a City-owned public-use airport located five miles southwest of downtown Carlsbad on US Hwy 62/180. During World War II, the terminal was used by the United States Army Air Force Training Command. Today, the airfield covers 1,980 acres and has four runways.

The Carlsbad airport is a regional non-hub commercial airport with direct passenger flights currently available to Albuquerque, Alamogordo, and El Paso, Texas, on New Mexico Airlines.

The most recent data indicate that for the 12-month period ending July 30, 2009, the airport had an average of 132 aircraft operations per week of which 39 percent were commercial, 28 percent were local general aviation, 25 percent were regional general aviation, 4 percent were air taxi and 3 percent were military. At that time there were 25 aircraft based at this airport: 18 single-engine airplanes, four multi-engine planes and three helicopters.

Air cargo service providers and the military regularly use the airport for their day-to-day operations. Other services available at the airport include fueling, parking, flight school/flight training, aircraft rentals, charters, pilot supplies, car rentals, and courtesy transportation to and from the airport.

Federal Aviation Administration (FAA) guidelines, which direct the development in and around Carlsbad airport property, include Federal Air Regulations (FAR) Part 150 and Part 77. Part 150 addresses airport noise compatibility planning, and Part 77 speaks to objects affecting the navigable space of aircrafts. No current encroachment from incompatible land uses is evident at this point in time. Carlsbad's Airport Industrial Park is located along the northern boundary of the airport. Surrounding land uses currently include agriculture uses to the north, vacant land to the east, and public land and open space to the south and to the west.

5. Pedestrian and Bike Transportation

Carlsbad offers two walking, jogging and biking trails from the railroad bridge on the north to Upper Tansel Dam on the south. A paved path extends two miles along both sides of the Pecos River Lake, linking the extensive array of parks and recreation facilities. The longest is the 6.5-mile, 5-foot-wide asphalt Dark Canyon trail along the Carlsbad Irrigation District Canal. Spanning the city, the trail can be accessed from several cross streets.

The Ocotillo Nature Trail is 2-plus miles in length and traverses the hillside between Skyline Drive and the NMSU Carlsbad campus, crosses US 285 and connects to the jogging and biking trail. This scenic trail extends through an area of native plants and wildlife. A parking area at the top of the trail offers a scenic view of the entire city.

In June 2011, the City entered into a contractual agreement with New Mexico Department of Transportation (NMDOT) to design and construct sidewalks, crosswalks, and crossing lights on a number of streets as part the Department's Safe Routes to School Program. The program will fund improvements on the following roads: Sixth Street from Georgia Street to Texas Street; Greene, Tansil, Bronson, Lea, and Fox Streets from Alta Vista to Maple Street; Eighth Street from Bonita to Monte Vista Street; and Garden Street from Eighth to Paisano Street. Crossing lights will also be installed on Church Street from Halagueno to Mesa Street.

B. Issues and Community Input

The Infrastructure, Economic Development, Government and Quality of Life Subcommittees of the Long Term Planning Committee (LTPC) identified transportation planning and specific projects as high priorities.

In developing its vision, the LTPC Infrastructure Subcommittee concluded that proper planning and implementation of infrastructure improvements are necessary to facilitate controlled growth in Carlsbad. Furthermore, better development of public facilities will encourage the investment of private sector dollars for future growth. As part of this planning and implementation, the committee noted the importance of a multimodal transportation system, including the bus system and rail. Specific items included:

- Synchronized traffic signals to improve traffic flow
- Better street signage
- Upgraded bus stops
- Extended walking trails and bikeways
- A street master plan
- ADA compliance, especially in areas popular with visitors
- Pedestrian crossings at the railroad tracks and the river

Since 2004, City officials have indicated that connectivity between the east and west side of Carlsbad should be improved, signalization of certain intersections could be enhanced, and conflicts between transportation modes, especially between the railroad and the road system, could be mitigated.

Community officials have also emphasized the importance of the regional road network to economic development efforts in the area.

Representatives from Southeastern NM Economic Development District (SNMEDD) and Southeastern Regional Planning Organization (SERPO) stress how the foundation of any economic development in southeastern New Mexico needs to be reinforced by an improved regional highway system. These regional improvements emphasize connections to I-10 to better link Southeastern New Mexico to the fast, efficient interstate system. Continued efforts in regional transportation planning should be implemented in order for Carlsbad to achieve its goals of enhancing regional highways. Similarly, more efficient and convenient air travel linking Carlsbad to a hub airport (Denver or Dallas) is also an economic development imperative.

C. Goals and Strategies

Local transportation goals and objectives were determined using a variety of resources. Documents reviewed include the Airport Master Plan Study, the New Mexico Statewide Air Service Study, and findings from the 2011 Long Term Planning Committee survey, the Regional Long-Range Transportation Plan for Southeastern New Mexico, the Carlsbad Five-Year Street Maintenance Plan, and the State Transportation Improvement Plan.

Goal 1. The City of Carlsbad will provide for safety and connectivity of the local road and trail systems for all modes of transportation.

- Strategy a. Improve connectivity across the Pecos River for all modes of transportation.
- Strategy b. Relieve conflicts and safety issues between the local road network and the railroad.
- Strategy c. Create safer routes for all modes of transportation by improving signage, signalization, and buffering.
- Strategy d. Complete the extension of North Loop Road down to US 285 to completely bypass the urban area.

Goal 2. The City of Carlsbad will maintain and repair local roads and keep them in good condition.

- Strategy a. Continue to implement the five-year plan for pavement improvement and preventive maintenance and the annual pavement improvement program as funding is available.
- Strategy b. Continue to use the PAVER paving management system to update information on pavement conditions and maintenance needs.
- Strategy c. Implement accessibility improvements as local road improvement projects are completed.

Goal 3. The City of Carlsbad will play a leadership role in regional transportation planning that will enhance its competitiveness for state and federal highway funding to improve the region's access.

- Strategy a. Partner with the federal Department of Energy (DOE) and with other local government agencies to provide the data necessary to substantiate Carlsbad's case for regional highway transportation improvements.
- Strategy b. Ensure that the City has representation on regional boards and committees related to transportation.

Goal 4. The City of Carlsbad will meet the service demand for public transportation in an equitable, affordable, and efficient manner.

- Strategy a. Continue to improve access to public transportation, including extension of the fixed-route system, as demand increases.
- Strategy b. Provide transit opportunities for all segments of the population by continuing curb-to-curb service and taking advantage of programs that reduce the cost of public transportation to low and moderate income residents.
- Strategy c. Work with Senior Center managers and social service providers to meet the needs of transit-dependent residents.

Goal 5. The City of Carlsbad will protect the Cavern City Air Terminal from conflicting land uses that may threaten current and future airport operations and expansion.

Strategy a. Address potential airport land use conflicts according to the recommendations in the land use element of the comprehensive plan.

Goal 6. The City of Carlsbad will consider the needs of pedestrians and bicyclists in roadway design when planning and implementing local road and trail improvements.

Strategy a. Include sidewalks or paved pedestrian trails and on-street bike routes or lanes in the design of local road improvements as rights-of-way allow.

Strategy b. Develop a Bikeways and Trails Master Plan.

Strategy c. Utilize citizen input to guide development of pedestrian and bicycle pathways through the city.

D. Implementation

Implementation of Carlsbad's goals and strategies begins to take shape during the Infrastructure Capital Improvement Planning (ICIP) process. The City seeks input from its departments and the general public about projects that are needed to maintain, expand or replace its facilities and equipment. Costs of the projects and potential sources of funds are estimated—typically legislative grants, federal funding, loans and municipal bonds. The projects are approved and ranked by the City Council and delivered to the NM Department of Finance, where top-ranked projects are considered during the state budgeting process. The ICIP process also focuses community attention on priority goals, needs and capabilities, provides a framework for decisions about community growth and development, and helps avoid crisis rate and tax increases.

Table 15 shows capital spending priorities for Carlsbad's transportation network for the years 2013 through 2017.

In addition to capital spending for the transportation network, Carlsbad should continue implementation of the Transportation Improvement Plan (TIP) to connect the current and future needs of the community with the development and improvement of the city's transportation networks.

Recommendations from the TIP should be implemented through the ICIP and the 5-year Street Maintenance Plan. Completion of the TIP is also what will be needed to pursue regional transportation planning objectives. Appropriate data collection for the various transportation networks should be collected that will fit transportation modeling software designed for rural communities.

A multi-modal inventory of existing transportation systems also needs to be conducted. The inventory should include sidewalks, roadway miles, rail lines, bike paths, public transportation, and a comprehensive conditions assessment for each of these items. This assessment will be used as a basis for projecting where future improvements on the transportation systems need to take place.

A method for comparing projects needs to be established. Limited funding will require the City to set criteria for prioritizing projects. Together with the identification of funding sources, the planning and prioritization of projects should take into account the 20-year scope of the plan.

Finally, it is recommended that Carlsbad appoint ad-hoc citizen advisory committees to guide the development of pedestrian and bicycle pathways through the city. A Bicycle Advisory Committee (BAC) and a Pedestrian Transportation Advisory Committee (PTAC) could provide input on bicycle and pedestrian access and safety issues. The advisory committees may take the role of developing the bike/pedestrian networks.

Recommendations from the advisory committees will be directed to the City Council for review.

The City's ICIP includes the following priorities for fiscal years 2013 through 2017.

Table 15. ICIP 2013-2017 – Transportation System Improvements

Project	2013	2014	2015	2016	2017	Total
Street Reconstruction Program	\$997,000	\$997,000	\$997,000	\$997,000	\$997,000	\$4,985,000
San Jose Boulevard Improvements	\$1,436,770	1,145,947	0	0	0	\$2,582,717
Hall Addition Street & Drainage Improvements	\$825,000	0	\$825,000	0	0	\$1,650,000
Calloway Drive Widening	\$1,650,000	0	0	0	0	\$1,650,000
San Jose Boulevard Bridge	\$5,500,000	0	0	0	0	\$5,500,000
West Carlsbad Street and Drainage	\$75,000	750,000	\$750,000	\$675,000	0	\$2,250,000
Sidewalk Inventory and Improvements	\$100,000	250,000	\$280,000	\$310,000	\$340,000	\$1,280,000
Repairs to La Huerta Bridge	\$81,700	0	0	0	0	\$81,700
North Canal Street Improvements	\$8,300,000	0	0	0	0	\$8,300,000
South Carlsbad Street and Drainage	\$750,000	750,000	\$750,000	\$750,000	\$750,000	\$3,750,000
Greene Street Improvements	\$1,200,000	0	0	0	0	\$1,200,000
Transit Vehicles	\$60,000	0	\$62,000	0	\$68,000	\$190,000
Traffic Signalization Improvements	0	350,000	\$350,000	\$350,000	\$350,000	\$1,400,000
Transit Facility Improvements	0	30,000	0	0	0	\$30,000
Repairs to CID Bridges	0	0	\$550,000	\$550,000	0	\$1,100,000
Bataan Bridge Reconstruction	0	0	\$3,582,000	0	0	\$3,582,000
Mesa Street Improvements	0	0	0	\$4,030,000	0	\$4,030,000
Church Street Improvements	0	0	0	\$2,600,000	0	\$2,600,000
Transportation Management Plan	0	0	0	0	\$250,000	\$250,000

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Chapter 9:

Hazard Mitigation

The purpose of the Hazard Mitigation Element of the plan is to identify the risks of hazards and recommend mitigation activities that will reduce losses to people and property affected by the natural and human-caused hazards that face the city and surrounding areas.

A. Existing Conditions and Issues

Hazards that have historically been of concern in the Carlsbad area, in order of priority as identified by the Eddy County Mitigation Planning Team, are:

1. Flooding

There is a high level of risk along the Pecos River. Carlsbad has experienced flash flooding 22 times since 1995. According to the 2005 Eddy County Hazard Mitigation Plan, an estimated 487 residential structures, 181 other structures and 23 critical facilities in Carlsbad are located within the 100-year flood plain and are vulnerable to flash flooding. Potential flooding could affect an estimated 1,281 residents. The critical facilities located in the 100-year floodplain include schools, the Eddy County detention center, the sheriff's department, and a fire station. The Eddy County Courthouse is also in the floodplain, possibly compromising Courthouse operations during flood events. The City of Carlsbad currently participates in the National Flood Insurance Program (NFIP).

2. Wildfire

There is generally a low risk of wildfire in the city limits of Carlsbad, although wildfire is a high priority in less developed parts of Eddy County. Vegetation reduction practices are recommended in areas near Carlsbad where the potential for wildfire is higher.

3. Drought

Carlsbad's climate is semi-arid, which causes extended periods of scant flow in area rivers and streams. A decrease in precipitation can create drought conditions in a relatively short time. The critical facilities connected to the city's municipal water system need water for multiple purposes, from potable water to fire suppression. Critical facilities near the periphery of the city limits may be connected to private systems that are not as reliable as the municipal system. Because groundwater in Carlsbad is typically recharged by surface water from the Pecos River, a continuation of the current drought and lower water levels in the Pecos River will lower the water table even further and require deeper wells. The Otis water co-op has already experienced a water level drop due to current drought conditions. Deeper groundwater requires more intensive treatment to filter out arsenic and minerals. Carlsbad recycles treated effluent for public irrigation to reduce the pressure on groundwater supplies. Improvements to the Double Eagle well field and line extensions are underway and are intended to improve the city's water supply.

The city has begun to feel the pressure of downstream demands for Pecos River water. As part of achieving long-term compliance with the Pecos River Compact, the state reached an agreement with the Carlsbad Irrigation District, the US Bureau of Reclamation and the Pecos Valley Artesian Conservation to purchase 18,000 acres of irrigated farmland. Water rights associated with those farmlands will be used to augment the flows of the Pecos River through the construction of an augmentation well field with a minimum capacity to pump 15,750 acre-feet per year. The New Mexico Interstate Stream Commission has so far purchased 804 acres within the Carlsbad Irrigation District and 2,994 acres within the Pecos Valley Artesian Conservancy District for a total of 3,798 acres.

With or without a prolonged drought, agricultural users of water in the County will come under increasing pressure to sell or lease water rights to developing urban areas. Long-term solutions for coping with a limited water supply will require increased cooperation between urban users and agricultural users. It will also require increased cooperation between municipal water systems and water cooperatives.

A prolonged drought also raises the probability of other hazards. While these affect primarily rural areas, Carlsbad could also be impacted by hazards such as wildfires, erosion, flash flooding, and dust storms. The Mitigation Planning Team has identified drought as a priority hazard in Eddy County.

Best practices in mitigating the impacts of drought include early assessment, public education, and water conservation programs.

4. Severe Weather

Severe weather such as high winds, thunderstorms, lightning, dust storms, hail, drought, substantial rainfall (that can cause localized flash flooding) and periodic temperature extremes are high risks in Carlsbad, posing potential damage to new buildings as well as to historic buildings that do not meet current building codes.

5. Human-Caused Hazards

These include hazardous materials releases, nuclear facility accidents, and terrorism (medium risk in Carlsbad). Based on the US Environmental Protection Agency (EPA) data, there are a number of facilities that store and transport hazardous waste in Eddy County. Four major transportation routes, including the railroad, are used to transport hazardous materials.

Carlsbad can raise awareness of specific hazardous materials and educate the public about specific aspects of these operations. Possible mitigation actions include public education, evacuation drills and response exercises, and warning systems. In addition, future development can be guided so that new facilities do not pose a threat to anticipated development.

The city and its developing urban areas are outside the 10-mile emergency planning zone for WIPP, and the city's growth is not likely to impact the emergency-planning zone in the near future. Much has already been done to protect against nuclear accidents in the development of the WIPP site and its transportation practices. Since the site falls under the jurisdiction of the federal Department of Energy, the most appropriate action for the City is to continue to coordinate with WIPP and the County's mitigation planning team.

6. Earthquakes

Although the majority of the earthquakes in New Mexico occur in the area of the Rio Grande rift, there has been a small cluster of earthquakes south of Artesia in Eddy County. Atomic bomb testing caused three earthquakes in New Mexico, including underground explosions near Carlsbad in 1961 and east of Farmington in 1967. Other earthquakes in southeastern New Mexico may be related to oil and gas production.

7. Dam Failure

In times of heavy rains and high water levels, dam failure would inundate the developed communities located downstream. However, dams are not on the mitigation planning team's priority list because the County currently is in a state of drought and the large dams in the

state are below 60 percent capacity. Due to the severe drought conditions, it will be several years before the dams upstream of Carlsbad could pose a risk to the community.

8. Brine Wells

A brine well used in oilfield services exists near the intersection of US 285 and US 62/180. Investigators with the state's Oil Conservation Division became concerned because the well has several features in common with two other nearby brine wells that collapsed. The City of Carlsbad, working with a contractor, RESPEC, is in charge of monitoring the well and is moving forward with the process that will allow it to determine the size and shape of the underground cavity.

The County Office of Emergency Management, working with the Carlsbad Police Department, the Carlsbad Fire Department and other agencies, has put together a precautionary response plan. The Carlsbad Brine Well Technical Subcommittee, a City advisory board, makes recommendations about monitoring and remediating the cavity. A Carlsbad Brine Well Working Group includes the technical subcommittee and emergency management, financial, legal and public communications committees.

Phase 1 of the remediation plan involves documenting the cavity by entering the well, lowering sonar equipment into the void and mapping the cavity's shape. Experts on the technical subcommittee will analyze the results and recommend solutions.

RESPEC regularly monitors ground movement around the well area. An early warning monitoring system is designed to alert emergency response personnel to changes in ground movement. Since monitoring began in 2009, there has been little change in the brine well area.

B. Hazard Mitigation Tools

The City of Carlsbad has a number of tools that it can use to mitigate potential hazards. These are described below.

1. Building Codes

The City's building codes follow the state's general standards and could be tailored to fit specific hazards.

2. Land Use Regulations

The City of Carlsbad has adopted and continues on a regular basis to update its land use regulations, which include the zoning code and subdivision regulations.

3. Flood Damage Prevention Ordinance

The City adopted a local floodplain ordinance as part of its requirement to participate in the NFIP. The purpose of the ordinance is to protect life and property and minimize losses due to flood conditions in certain areas. Through administration of the ordinance, the City ensures that new construction or substantial improvements to existing structures located in the 100-year floodplain are built to minimize flood damage and do not impede the flow of water in the event of a flood.

4. Water Conservation, Emergency Response and Drought Management Ordinance

The City's water conservation ordinance adopts water conservation measures and establishes a response management plan for drought and other emergency situations affecting the quality or quantity of the city's potable water supply.

5. Comprehensive Plan

The City Comprehensive Plan focuses on the City of Carlsbad and private land within five miles of the city limits. The City of Carlsbad adopted its previous plan in 2003; that plan is updated by this document. The Vision 2020 Plan examined development trends and provided general policy guidelines. The plan also emphasized the need to strengthen City/County cooperation on development decisions and provision of infrastructure. Many of the goals and objectives of the Vision 2020 Plan reinforced the mitigation strategies proposed in the Hazard Mitigation Plan, especially in terms of minimizing development in the floodplains and conserving and protecting water supplies. This approach is continued in the 2012 Comprehensive Plan.

6. Training

The Waste Isolation Pilot Plant's (WIPP) States and Tribal Education Program (STEP) trains emergency response professionals along WIPP routes. This US Department of Energy (DOE) training focuses on emergency responders who may potentially respond to accidents involving WIPP waste shipments.

7. Public Education

The City provides public information on emergency preparedness and response, the brine well and other potential hazards on its web site.

The agencies that manage emergencies in Carlsbad and the surrounding area are the Eddy County Office of Emergency Management, the Carlsbad Fire Department, the Carlsbad Police Department and WIPP Emergency Management. These agencies work together to coordinate their activities through the Eddy County Office of Emergency Management and the Mitigation Planning Team.

C. Goals and Strategies

The applicable goals, objectives and actions of the Hazard Mitigation Plan are listed below and adopted as goals of the Carlsbad Comprehensive Plan.

Hazard Mitigation Goal 1. Reduce possibility of injury, death, and the possibility of damage and loss of function to identified vulnerable buildings and critical facilities, due to severe weather.

- Strategy a. Install an early warning system to warn residents of high winds to supplement public service announcements.
- Strategy b. Participate in a countywide reverse 911 system to notify specific communities about an imminent hazard threat.
- Strategy c. Regularly evaluate and inspect critical facilities to determine vulnerability to severe weather, particularly high winds.

Hazard Mitigation Goal 2. Reduce possibility of damage and loss to existing community assets including structures, critical facilities, and infrastructure due to flooding.

- Strategy a. Continue to participate in updates of flood maps for Carlsbad.
- Strategy b. Complete a drainage study for Dark Canyon on the west side of Carlsbad.

- Strategy c. Complete an engineering study on West Carlsbad Drainage Channel from 12th and Church Streets to Pierce Street.
- Strategy d. Continue to promote the purchase of flood insurance by property owners in flood hazard areas.

Hazard Mitigation Goal 3. Address identified data limitations regarding lack of detailed information about:

- Individual structures located in the 100-year floodplain
- First-floor elevations for priority areas

- Strategy a. Complete data records for structures in the city limits and provide data to the Eddy County GIS to allow the Emergency Management Plan to incorporate information about property values, construction types, etc. more easily.
- Strategy b. Obtain information for all remaining structures in the 100-year floodplain to determine the best property protection methods to promote with individual property owners, including first floor elevations for properties within the 100-year floodplain, market and/or replacement value, and construction type. Techniques for gathering information over time should include developing and implementing a program for integrated information “capture” at key points in normal municipal administrative procedures including applications for building permits.

Hazard Mitigation Goal 4. Reduce the possibility of damage and loss due to drought.

- Strategy a. Continue efforts to conserve water and protect existing water supplies.
- Strategy b. Continue efforts to encourage residents to use water-saving landscaping techniques.
- Strategy c. Develop a plan to address water use in new development.
- Strategy d. Maintain and periodically update the Water Conservation, Emergency Response and Drought Management Ordinance to include best practices in water conservation and municipal response to drought.
- Strategy e. Expand the use of treated effluent for public landscape irrigation.
- Strategy f. Monitor drilling activity near municipal water supply wells.

Hazard Mitigation Goal 5. Reduce the possibility of damage and loss to existing community assets, including structures, critical facilities, and infrastructure due to human-caused hazards.

Hazard Mitigation Goal 6. Protect the general population and special populations from hazardous materials incidents.

- Strategy a. Enhance the response capability of fire, police, and emergency medical personnel to facilities for special populations, such as nursing homes, senior centers, and daycare centers.
- Strategy b. Update City department Emergency Operations Plans to include adherence to Homeland Security rules and regulations.

Hazard Mitigation Goal 7. Continue to promote disaster-resistant future development through enforcement of the City's Floodplain Ordinance

- Strategy a. Encourage and facilitate the development or revision of the Comprehensive Plan and zoning ordinance to limit development in high-hazard areas and improve the ability to identify vulnerable structures.
- Strategy b. Distribute and promote the inclusion of the vulnerability analysis information as part of periodic plan review and revisions.

D. Implementation

As part of county-wide hazard mitigation efforts, the Mitigation Planning Team developed a prioritized list of mitigation actions to reduce vulnerability to natural and human-caused hazards. Specific actions and an implementation strategy include details about organization responsibilities, estimated costs, possible funding sources, and timelines for implementation. The following table includes a description of the mitigation actions that are recommended in this plan for the City of Carlsbad, listed in the order of priority as determined by the Mitigation Planning Team.

City of Carlsbad Mitigation Actions	Hazard	Priority
Early warning systems to warn residents of severe weather and other imminent hazards to supplement public service announcements	All Hazmat and Severe weather	1
Dark Canyon Drainage Study (Assess road crossings at San Jose, Hidalgo, and Radio Boulevard.)	Flood	2
West Carlsbad Drainage Channel (Re-evaluate and consider re-engineering channel from 12th and Church to Pierce.)	Flood	3
City of Carlsbad Drainage Study for Downtown Area	Flood	4
Expand projects to use municipal treated effluent for non-potable uses.	Drought	5

1. Detailed Project Descriptions

1. Early warning system to warn residents of severe weather and other imminent hazards to supplement public service announcements

- Currently the City of Carlsbad does not have an early warning system; it would be used primarily for weather-related hazards, including localized flash floods.
- Responsible Organization: Eddy County and City of Carlsbad emergency management
- Estimated Costs: \$150,000
- Possible Funding Sources: Office of Domestic Preparedness, Department of Public Safety, FEMA Hazard
- Mitigation Proposal Grant Pre-Disaster Mitigation Assistance funds administered by NMOEM, Hazard Mitigation Grant Program Technical Assistance funds administered by NMOEM. GDGB funds.
- Timeline for Implementation: Install system within three years of plan adoption
- Cost-Benefit Analysis: Early warning system has potential to reduce injuries and deaths from severe weather.

Priority 1

2. West Carlsbad Drainage Channel (Re-evaluate and consider re-engineering channel from 12th and Church to Pierce.)

- This area had substantial flooding in 2003. Initial storm water project not lined, directs water to low-lying area behind residential subdivision.
- Responsible Organization: Public Works
- Estimated Costs: \$85,000
- Possible Funding Sources: FEMA, Pre-Disaster Mitigation Assistance funds administered by NMOEM, Hazard
- Mitigation Grant Program Technical Assistance funds administered by NMOEM.
- Timeline for Implementation: One year to complete study
- Cost-Benefit Analysis Not applicable

Priority 2

3. Dark Canyon Drainage Study (Assess road crossings at San Jose, Hidalgo, and Radio Boulevard.)

- Comments: Dark Canyon major drainage way on southwest side of city and has history of flooding. Study will look at appropriate drainage measures for the identified street intersections.
- Responsible Organization: City of Carlsbad Public Works/ Street Department, Eddy County Flood Control Commission
- Estimated Costs: \$125,000
- Possible Funding Sources: City of Carlsbad, Pre-Disaster Mitigation Assistance funds administered by NMOEM,
- Hazard Mitigation Grant Program Technical Assistance funds administered by NMOEM.
- Timeline for Implementation: Two years
- Cost-Benefit Analysis N/A

Priority 3

4. City of Carlsbad Drainage Study for Downtown Area

- Comments: The backbone of a storm drain system has been constructed as part of the reconstruction of Canal Street. The 2013-2017 ICIP includes extensions to, Normandy Addition (2013), Lea Street (2014), Mermod Street and Stevens Street (2016); and McKay Street, Hagerman Street and Church Street (2017)
- Responsible Organization: Public Works / Street Department
- Estimated Costs: \$15.6 million
- Possible Funding Sources: Legislative grants and local funds
- Timeline for Implementation: Five years

- Cost-Benefit Analysis N/A

Priority 4

5. Expand projects to use municipal-treated effluent for non-potable uses

- Comments: City of Carlsbad already uses treated effluent to irrigate golf course and limited number of city parks. Could expand existing programs and thereby reduce current use of potable water.
- Responsible Organization: Public Works Department
- Estimated Costs: \$250,000
- Possible Funding Sources: Office of State Engineer, State legislative funds, Pre-Disaster Mitigation Assistance funds administered by NMOEM, Hazard Mitigation Grant Program Technical Assistance funds administered by NMOEM.
- Timeline for Implementation: RFP for study out in 2005, complete study by end of 2006.
- Cost-Benefit Analysis: New water sources cost more than \$6,000/acre-foot of water. Each acre-foot of water typically serves three households. Re-use of treated effluent equals cost of adding 125 new households.

Priority 5

The Mitigation Planning Team recommends the establishment of a permanent hazard mitigation team to lead the implementation of the plan and continue the hazard mitigation planning process beyond the Hazard Mitigation Plan.

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Chapter 10: Appendices

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B. Carlsbad's Planning History

The first planning in Carlsbad took place in 1945. These studies were undertaken by the Chamber of Commerce and were not officially adopted by the City. At the time, no state enabling legislation existed allowing New Mexico communities to adopt plans and to enforce zoning ordinances. As a result, the zoning ordinance that evolved from the 1945 plan proved controversial locally.

In 1950, sections of the 1945 plan were updated and additional elements were completed, notably estimates of future population in Carlsbad and the land use and zoning elements of the plan. Subsequently, the City adopted its first Zoning Ordinance and Subdivision Regulations.

During the 1950s several streets were widened to accommodate additional traffic in the central business district. The parks and recreation system was expanded to include a new country club, a municipal golf course and several neighborhood parks, and new school sites were purchased to serve the needs of a growing community.

Subdivision controls, while for the most part effective and resulting in better subdivision design, did not come in time to provide north-south through streets to the western part of the city. Residential areas were allowed to be developed in the Pecos River flood plain. By 1962 the encroachment of “trailers” on areas of single-family site built housing had already begun to occur.

The 1962 Master Plan, authored by Harland Bartholomew and Associates, sought to correct some of the inadequacies and unforeseen results of the 1950 regulations. The plan envisioned Carlsbad as a city of 50,000 by the year 1980, doubling its number of inhabitants. This did not happen; Carlsbad largely ceased growing after 1960, when its population exceeded 25,000. During the 1960s, largely due to changes in the local economy, population decreased and would not reach 1960 levels again until after 1980. Despite its faulty assumptions, the 1962 Master Plan made a number of worthwhile recommendations, including:

- Planned annexations and extension of public services.
- Closing the zoning ordinance loophole that allowed trailers to be considered single-family homes when located outside a trailer park.
- Enforcing and adding more detailed language to the sign ordinance, which had largely been ignored since its adoption.
- Adopting county zoning compatible to city zoning within the City's then five- mile extraterritorial zoning jurisdiction.
- Adopting a minimum standard housing ordinance to combat the gradual decline of housing conditions in large parts of the city.

Despite the worth of these recommendations, none appear to have been implemented.

In 1967, a panel of members of the Urban Land Institute (ULI) identified economic development opportunities for the City of Carlsbad. The study they prepared noted that in the late 1960s the service sector of Carlsbad's economy lagged significantly behind that of the nation. As a result, Carlsbad was encouraged to expand the recreation and tourism, health care, retirement, and education sectors of the local economy. The panel also urged the community to revitalize its central business district and to beautify unsightly approaches to the city from US highways. The panel also encouraged the development of more recreational activities, including a golf course and the expansion of recreational development accommodated by the river.

In 1973, the firm of Chamber, Campbell, Isaacson & Chaplin of Albuquerque prepared a report entitled, "Carlsbad Comprehensive Plan Update," which was funded by the United States Department of Housing and Urban Development (HUD). The 1973 Plan Update, like the 1962 plan, contained a number of worthwhile suggestions, most of which again were not immediately implemented. These included:

- Requiring development to conform to the General Plan for community development in order to prevent sprawl, preserve contiguous open places and agricultural lands, and to provide public facilities and services economically.
- Developing parks and other recreation facilities to optimum standards.
- Establishing and maintaining a consistent housing policy.

In 1982, Harland Bartholomew proposed developing an updated and coordinated master plans for both the City of Carlsbad and Eddy County. The proposal would have set forth a new land use plan, a new traffic plan, a new community facilities plan, a new housing strategy and would have contained recommendations for revision of the City's Zoning Ordinance, Subdivision Regulations, and Capital Improvements Plan.

On November 15-19, 1984, the American Institute of Architects provided Carlsbad with the services of a Regional/Urban Design Assistance team (R/UDAT). The Carlsbad R/UDAT Committee, composed of concerned Carlsbad citizens, asked the visiting professionals to address economic development, tourism, quality of life, physical planning, and implementation of the study. The R/UDAT team developed the following recommendations for improving the effectiveness of physical planning and the regulation of development:

- Adopt design standards within the system of current ordinances.
- Install landscaping in a manner that achieves continuity and identity.
- Enforce existing ordinances, especially the sign ordinance, and expand it to control wall signs, temporary signs, and to sunset non-conforming signage. Develop a signage system directed to helping visitors find their way.
- Add site plan review authority to the duties of the Planning and Zoning Commission.
- Take advantage of the national MainStreet Program to revitalize downtown.
- Expand the system of riverfront development to meet resident and visitor demand for recreation and entertainment facilities.

1. Eddy County Public Opinion Survey

In 1999, as part of a Department of Energy economic development plan for southeastern New Mexico, Tripp Umbach Associates conducted a public opinion survey of Eddy County. The survey also included Lee County, although the Lee County data was not considered in developing the comprehensive plan. The survey consisted of questions relating to the public's opinion of the economic development, climate, quality of life factors, the business climate, and growth potential. Two thousand five hundred surveys were mailed out in Eddy County to a random sample of residents. The response rate was 32.5 percent, considered to be very successful.

2. RCCI Community Vision 2000

Beginning in the 1990s, the Ford Foundation initiated a technical assistance and capacity building program in rural communities throughout the United States. Dubbed the Rural Community College Initiative (RCCI), it delivered programs nationally through local junior and community colleges. The New Mexico State University branch campus in Carlsbad participated in the program. Through the programs, each community college concentrated on different areas of community development. In Carlsbad the effort centered on building grass root citizen participation, a model that had been successful in the redevelopment of Chattanooga, Tennessee, in the 1980s. NMSU revised the model to include a broad leadership development program that was designed to be both inclusive and diverse. Among their activities was "Community Vision 2000," an effort to build consensus for a vision for Carlsbad's future. Although not scientific in the manner of the Tripp Umbach survey, the results provided insights into the concerns and desires of Carlsbad's citizens.

Priorities and recommendations from this effort guided Eddy County's policy choices and contributed to the October 2008 County Comprehensive Plan prepared by Sites Southwest.

3. Greater Carlsbad Comprehensive Plan—Strategy 2020

CDOD invited key representatives from Carlsbad and Eddy County government, including elected and appointed officials, and key stakeholders to form a Steering Committee for the Comprehensive Plan. Steering Committee members represented the points of view held by different constituencies in the planning area and supervised the development of the plan.

In order to direct data collection and policy development efforts, focus groups were established for each element of the plan in order to gather input from individuals and constituencies, including those of state and federal agency land managers who were not represented on the Steering Committee.

Prior to public hearing on the Comprehensive Plan, an Open House was held to allow Greater Carlsbad residents to comment on the proposed policy direction in each of the Comprehensive Plan elements.

4. Greater Carlsbad Housing Analysis and Strategic Plan

The 2003 Carlsbad Comprehensive Plan had identified a number of housing issues and established goals and objectives for providing quality residential environments. The Housing Plan quantified housing needs and set out a strategic plan of achievable actions to improve housing in the Greater Carlsbad area. The document is consistent with requirements of the Affordable Housing Act for Affordable Housing Plans and meets New Mexico Mortgage Finance Authority standards for such plans. The Housing Plan included the following sections:

- A community and housing profile, documenting current conditions and trends.
- A housing needs assessment that described existing and projected needs.
- A land use and policy review that identified institutional and regulatory barriers to housing production.
- Goals, policies and quantifiable objectives
- A strategic action plan
- A resource directory for state and local programs that could help the City of Carlsbad meet its housing goals.

The plan identified five priority areas and strategies to improve housing availability and quality of workforce housing, housing for cost-burdened households, rehabilitation and replacement of deteriorated housing stock, and special needs housing and housing for retirees.

5. Carlsbad MainStreet Downtown Master Plan (2010)

Working closely with the Carlsbad MainStreet organization, Sites Southwest developed a Downtown Master Plan for the City of Carlsbad. The plan takes advantage of newly renovated hospitality and entertainment venues as well as streetscape improvements along the city's main thoroughfare to direct visitors to the largely unknown historic Downtown core. It weaves together ideas and concepts from an assortment of earlier plans to create a coherent vision of Downtown that can be carried out over time through specific, implementable actions. The plan drew on the results of a market analysis and workshops with the public and business owners to identify potential business opportunities, particularly retail and entertainment, to help revitalize the Downtown area.

6. Carlsbad Long Term Plan (2012)

In early 2011, Mayor Dale Janway initiated a Long Term Planning Initiative for the City of Carlsbad.

In March of 2011, the City of Carlsbad convened a Long Term Planning Committee composed of over 50 Carlsbad residents representing a wide range of community interests. The committee structure included a Steering Committee and six subcommittees to look in depth at topic areas that are critical to Carlsbad's future. Each of the following subcommittees was tasked with analyzing community input related to the focus areas for their topic.

- Quality of Life
- Government
- Energy and Natural Resources
- Economic Development
- Education
- Infrastructure

The work of the Long Term Planning Committee was completed in three phases. The first was public outreach to obtain as many ideas as possible from the community. The second phase was the work of subcommittees, aided by consultants, to compile the ideas submitted and present the ideas and priority projects for each topic area. The draft reports were submitted to the Steering Committee. The third phase integrated the work of the subcommittees into a final report.

To inform the work of the committee, the Committee solicited information from Carlsbad residents through a series of public

meetings and a planning survey. The purpose of the meetings and survey were to ensure citizen participation in the planning process at all levels of the community. Public outreach included a general public kick-off meeting at the beginning of the process, followed by public meetings in each of the City's four wards, sponsored by the City Councilors. Residents were notified of these meetings and of the Long Term Plan through water bill inserts, news articles in the Carlsbad Current-Argus, radio spots, information on the City's web site, and distribution of information through a variety of channels. Representatives from the six subcommittees attended each meeting, and citizens were able to complete surveys at the meetings.

The survey was also available at the Carlsbad Municipal Building, the Carlsbad Library, the San Jose Senior Citizens Center, the North Mesa Senior Citizens Center, the Carlsbad Museum and the Chamber of Commerce. Representatives of the Long Term Planning Committee spoke to local service organizations (Rotary, Kiwanis, Lions, etc.) and handed out surveys to their associates, church members and as many other individuals as possible. A copy of the survey was printed in *The Carlsbad Local*, a free local newspaper.

The surveys asked the public for their ideas for improving Carlsbad. For each idea, respondents were asked to describe the benefits of the idea or project, define the need for the project, identify obstacles to accomplishing the project, describe past efforts or provide examples of successful projects, and indicate their willingness to help implement their idea. A total of 578 survey forms were returned.

The Long Term Planning Committee assigned each idea to the primary subcommittee for the suggestion and a secondary committee if the idea fit more than one topic area. The ideas were also categorized so that the frequency of like ideas could be tabulated. The committees then included the ideas in their analyses and recommendations.

The resulting Carlsbad Long Term Plan is a product of more than 12 months of work by Carlsbad citizens to develop a broad-based vision for Carlsbad's future. The vision of the plan is to ensure that Carlsbad is a well-planned and maintained community environment with ample resources and opportunities available for citizens and visitors to enjoy a high quality of life.

The mission of the Long Term Plan is to establish a sustainable, transparent Long Term Planning process that maximizes citizen participation; thereby creating a road-map for community development, progress and pride.

The ideas of Carlsbad residents and the Long Range Planning Committee will be implemented over time by a variety of governmental, non-profit and private sector entities. The role of the Long Term Planning Committee is to transmit the ideas and suggestions to the proper entity and monitor the results.

The process followed by the Long Term Planning Committee and the City of Carlsbad is a model for public input to the City and other organizations. This process can be repeated on a regular basis to provide citizens with opportunities to express their opinions and make suggestions on long-term planning issues. The following are overall strategy recommendations to carry out the Long Term Plan and put a process in place for updates.

1. The Long Term Plan will be implemented in coordination and cooperation with the City of Carlsbad and many local organizations.

The Long Term Plan Committee recommends that the Long Term Plan be forwarded to the appropriate agencies or organizations so that these entities can incorporate Plan recommendations into their programs.

2. Public input into Long Term Planning issues is important to the future of Carlsbad.

The Long Term Planning Committee recommends that the City administration prepare and the City Council adopt an ordinance that requires the Council to review the plan every two years. The Committee further recommends that the Council appoint an Implementation Committee to follow the progress of plan and a Steering Committee every two years to report on progress to date and develop priorities for the next two years.

3. Ongoing communication regarding the Long Term Plan and other City initiatives is important.

The Long Term Planning Committee recommends that the City of Carlsbad develop a communications plan for informing the public of the implementation of the Long Term Plan as well as other City initiatives and hire a Public Information Officer who will be responsible for implementing the communications plan.

Recommendations of the Long Term Planning Committee were incorporated into this update of the Greater Carlsbad Comprehensive Plan: Strategy 2030.