

IN THE SUPREME COURT OF THE STATE OF NEVADA

CITY OF LAS VEGAS, A POLITICAL
SUBDIVISION OF THE STATE OF
NEVADA,

Appellant,

vs.

180 LAND CO., LLC, A NEVADA
LIMITED-LIABILITY COMPANY; AND
FORE STARS, LTD., A NEVADA LIMITED-
LIABILITY COMPANY,

Respondents.

180 LAND CO., LLC, A NEVADA
LIMITED-LIABILITY COMPANY; AND
FORE STARS, LTD., A NEVADA LIMITED-
LIABILITY COMPANY,

Appellants/Cross-Respondents,

vs.

CITY OF LAS VEGAS, A POLITICAL
SUBDIVISION OF THE STATE OF
NEVADA,

Respondent/Cross-Appellant.

No. 84345

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**AMENDED
JOINT APPENDIX
VOLUME 113, PART 5 OF 5
(Nos. 20596–20631)**

LAW OFFICES OF KERMITT L. WATERS

Kermitt L. Waters, Esq.

Nevada Bar No. 2571

kermitt@kermittwaters.com

James J. Leavitt, Esq.

Nevada Bar No. 6032

jim@kermittwaters.com

Michael A. Schneider, Esq.

Nevada Bar No. 8887

michael@kermittwaters.com

Autumn L. Waters, Esq.

Nevada Bar No. 8917

autumn@kermittwaters.com

704 South Ninth Street

Las Vegas, Nevada 89101

Telephone: (702) 733-8877

*Attorneys for 180 Land Co., LLC and
Fore Stars, Ltd.*

LAS VEGAS CITY ATTORNEY'S OFFICE

Bryan K. Scott, Esq.

Nevada Bar No. 4381

bscott@lasvegasnevada.gov

Philip R. Byrnes, Esq.

pbyrnes@lasvegasnevada.gov

Nevada Bar No. 166

Rebecca Wolfson, Esq.

rwolfson@lasvegasnevada.gov

Nevada Bar No. 14132

495 S. Main Street, 6th Floor

Las Vegas, Nevada 89101

Telephone: (702) 229-6629

Attorneys for City of Las Vegas

CLAGGETT & SYKES LAW FIRM

Micah S. Echols, Esq.

Nevada Bar No. 8437

micah@claggettlaw.com

4101 Meadows Lane, Suite 100

Las Vegas, Nevada 89107

(702) 655-2346 – Telephone

*Attorneys for 180 Land Co., LLC and
Fore Stars, Ltd.*

McDONALD CARANO LLP

George F. Ogilvie III, Esq.

Nevada Bar No. 3552

gogilvie@mcdonaldcarano.com

Amanda C. Yen, Esq.

ayen@mcdonaldcarano.com

Nevada Bar No. 9726

Christopher Molina, Esq.

cmolina@mcdonaldcarano.com

Nevada Bar No. 14092

2300 W. Sahara Ave., Ste. 1200

Las Vegas, Nevada 89102

Telephone: (702) 873-4100

LEONARD LAW, PC

Debbie Leonard, Esq.

debbie@leonardlawpc.com

Nevada Bar No. 8260

955 S. Virginia Street Ste. 220

Reno, Nevada 89502

Telephone: (775) 964.4656

SHUTE, MIHALY & WEINBERGER, LLP

Andrew W. Schwartz, Esq.

schwartz@smwlaw.com

California Bar No. 87699

(admitted pro hac vice)

Lauren M. Tarpey, Esq.

ltarpey@smwlaw.com

California Bar No. 321775

(admitted pro hac vice)

396 Hayes Street

San Francisco, California 94102

Telephone: (415) 552-7272

Attorneys for City of Las Vegas

II.H SUMMERLIN NORTH

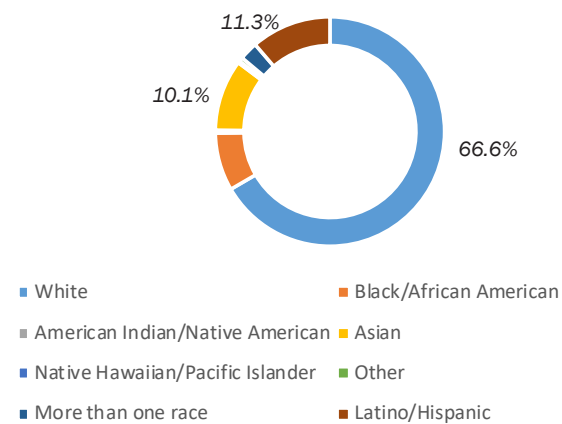


Originally intended for aerospace development, the development of the 25,000-acre master planned community of Summerlin began in the 1990s through a Planned Community development agreement. The first developments began in Summerlin North and included an age-restricted Sun City Summerlin. Today, Summerlin Corporation retains control of the area's open space and residential land through a master community association, divided into individual villages with additional HOAs. This northern portion of the community is now fully developed and mature with numerous neighborhood and village parks, more than 150 miles of trails, nine golf courses, shopping centers, medical and cultural facilities, Red Rock Resort, the Suncoast, and JW Marriott hotels-casinos, business parks and more than 30 public and private schools.

DEMOGRAPHICS

- Current population: 60,748 ▲
 - Largest Age Group: 65 - 74 years (9,276) ▲
 - Persons per household: 2.27 ▼
 - Single Family Dwellings: 18,873 ▲
 - Multi-Family Dwellings: 8,737 ▲
 - Median Household income: \$68,329 ▲
 - Median rent / mortgage: \$1,360 / \$1,558 ▲
 - Housing tenure: 31.8% rent / 68.2% own ▼
 - Attained High School Diploma: 94.2% ▲
 - Attained Bachelor's Degree: 40.3% ▲
 - Unemployment rate: 8.6% ▼
 - Housing Density: 5.79 dwelling units / acre ▲
 - Population Density: 8,148 residents / square mile ▲
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Consider mixed-use infill long-term

SERVICES AND FACILITIES

- Add city facilities and services

PARKS AND OPEN SPACE

- Regional trail connections

WORKFORCE AND EDUCATION

- Alleviate school overcrowding

TRANSPORTATION

- As the area ages, improve infrastructure
- Construct high capacity transit along Charleston Blvd, linking to Summerlin Transit Center
- Complete Summerlin Pkwy improvements, Summerlin Pkwy Trail, and connections

Click each strategy to read more. Metrics for each topic are highlighted on the following pages

SEE ALSO:

Summerlin North Development Agreement



ATTY FEE MOT - 0194

20596

LAND USE AND DEVELOPMENT

TODAY

Summerlin North is characterized by a range of stable, upscale single-family detached and multi-family developments, many of which are auto-oriented, gated, and exclusive.

IN THE FUTURE

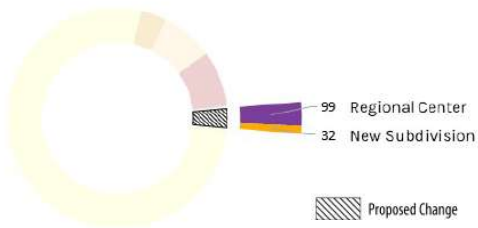
Much of the land within Summerlin North will remain in place as-is pursuant to the development agreement; however, there may be opportunities to replace aging development with higher intensity uses.

PLANNED PLACE TYPES	
•	Regional Center
•	Mixed-Use Center
•	Corridor Mixed-Use
•	Neighborhood Center Mixed-Use
•	Mixed Residential
•	Traditional Neighborhoods
•	New Subdivision
•	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



Summerlin North area: 4,771.3 acres

2050 PROJECTIONS

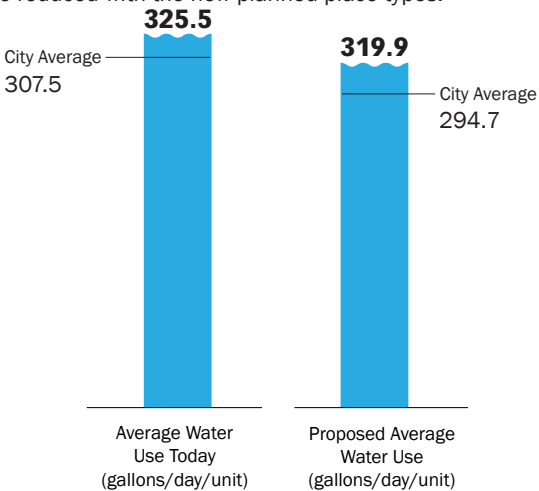
- Population: 63,903
- Total New Housing Units: 1,390 (0 Single family / 1,390 Multi family)
- New Commercial (1,000 GSF): 600,203
- Housing Density: 6.08 dwelling units / acre
- Population Density: 8,572 residents / square mile

KEY IMPLEMENTATION STRATEGIES & TOOLS

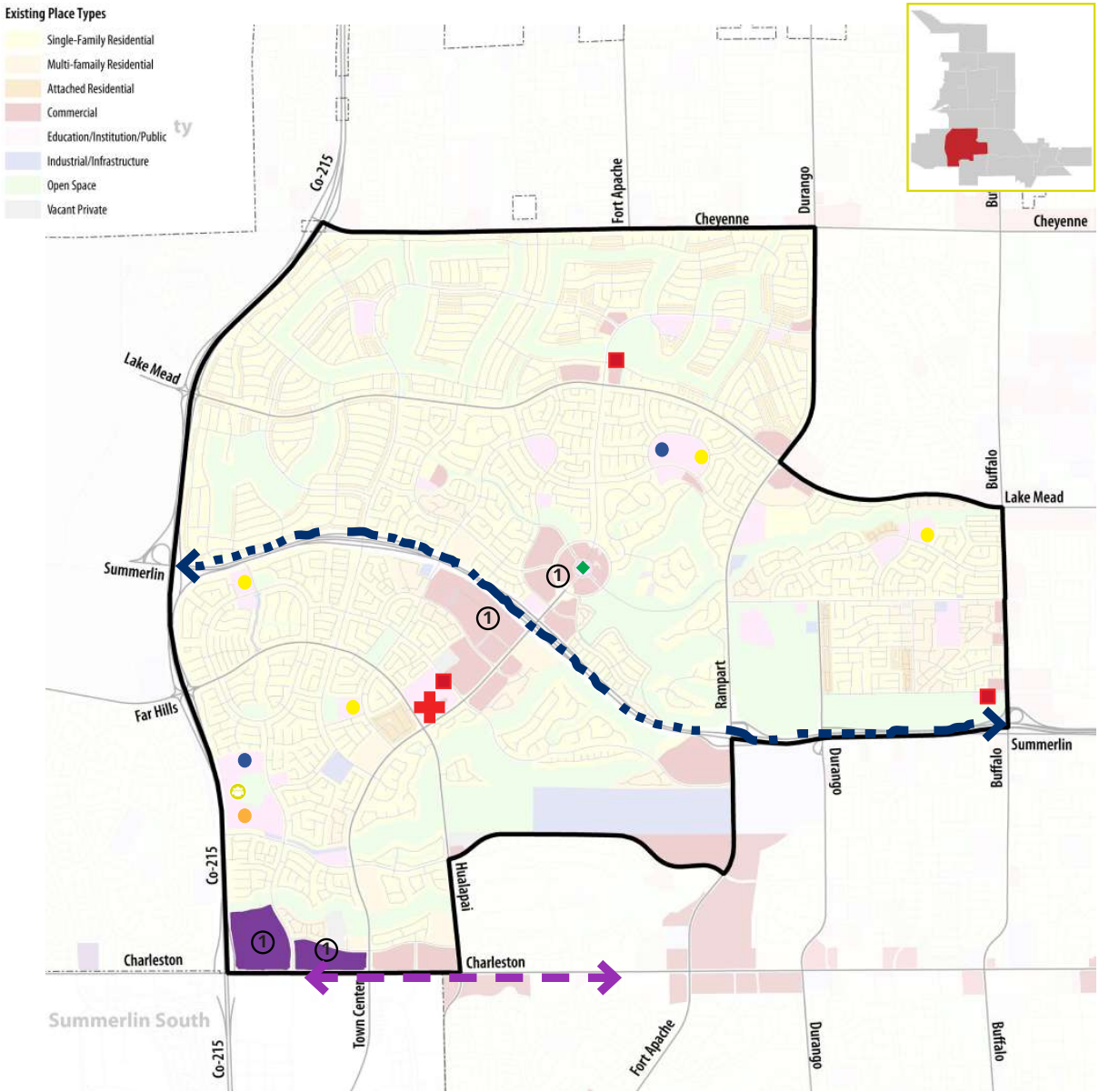
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture

WATER USAGE

Water consumption of residents in the planning area will be reduced with the new planned place types.



II.H SUMMERLIN NORTH



SUMMERLIN NORTH PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- ① Should the opportunity for infill be desired in Summerlin North, these areas are appropriate

- Transportation improvement
- Planned High Capacity Rapid Transit

COMMUNITY FACILITIES

- CLV Fire Station
- Hospital
- CCSD School (elementary/middle/high/alternative or special)
- Library
- City or other public facility
- Veteran's Memorial Community Center

ATTY FEE MOT - 0195

20597

SERVICES



Many City of Las Vegas services are supplemental in this area to those amenities provided through the Summerlin Association; Veteran’s-Memorial Community Center anchors a portion of Summerlin North, and many medical services are easily accessed at Summerlin Hospital. Police and fire protection in this area are adequate.

PARKS AND OPEN SPACE



The area contains abundant parks, open spaces, and well-preserved washes and arroyos. Several public and private golf courses and county clubs, including Angel Park, TPC Summerlin, TPC Canyons, Palm Valley, Highland Falls, and Eagle Crest courses wind through Summerlin North and are well utilized amenities of the area.

WORKFORCE



Summerlin North is served by upscale retail and business establishments, primarily along the Charleston Blvd corridor near Summerlin Centre and along Town Center. Major office and professional service-oriented jobs are in business parks near the hospital; two major casino-resorts mark the entryway to Summerlin. Many high-quality public and private schools are found throughout Summerlin North.

TRANSPORTATION



Summerlin North is bisected by Summerlin Parkway and is bounded on the west by the 215 Beltway. Generally, the infrastructure is newer and well-maintained, but as the area continues to age, infrastructure should be programmed for upgrades and/or replacement. Summerlin North also has an extensive trail, bicycle, and shared-use path system. Improvements to Summerlin Parkway will help improve traffic flow and safety, especially as neighborhoods are developed in Summerlin West.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

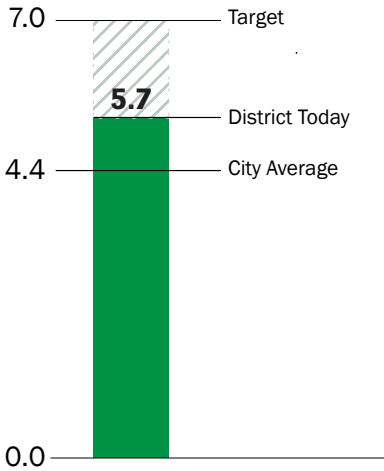
	Parks	73%	City 56%
	Schools	17%	31%
	Grocery and retail services	10%	19%

Percentage of total units within 2 mile drive:

	Community Centers	63%	45%
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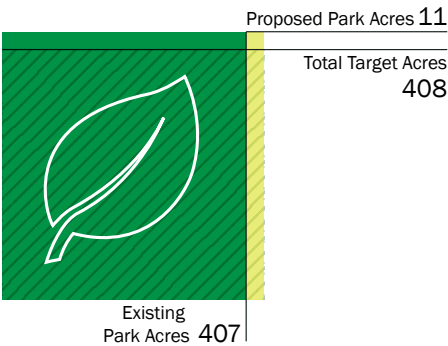
PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district



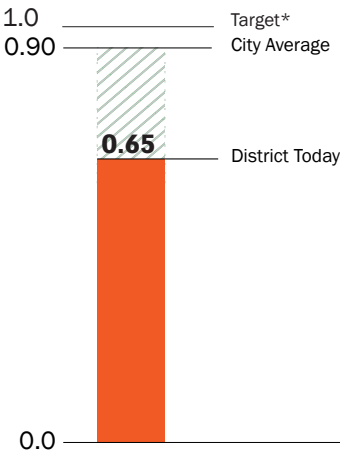
PARK ACRES NEEDED TO ACHIEVE TARGET

Summerlin North meets the target acreage at full build out.



JOB SUPPLY IN DISTRICT

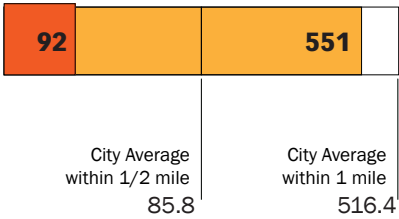
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

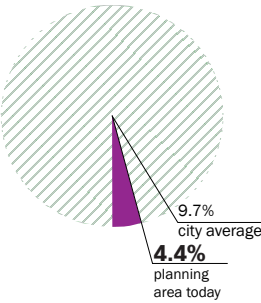
JOB PROXIMITY

Average job opportunity in proximity to the planning district



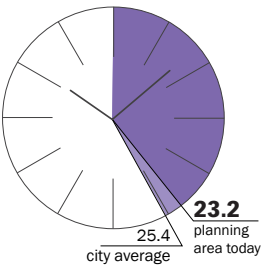
VEHICLE OWNERSHIP

Percentage of households without cars within the district



COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

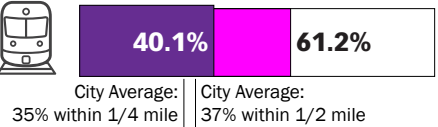


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



ATTY FEE MOT - 0196



SUMMERLIN WEST

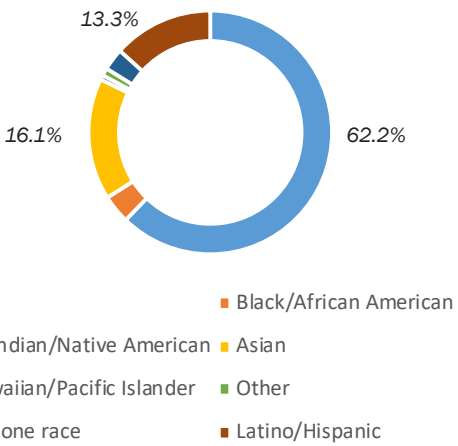


As a part of the Summerlin master planned community, Summerlin West is the gateway to Red Rock Canyon and will be home to approximately one third of Summerlin’s 250,000 residents upon full build-out. As a part of the master development agreement, development will gradually progress west as more neighborhoods and villages are built out. The addition of a new neighborhood mixed use village center and new resorts will bring new commercial activities that are currently lacking in the area.

DEMOGRAPHICS

- Current population: 18,748 ▼
 - Largest Age Group: 35 - 44 years (3,587) ▲
 - Persons per household: 2.88 ▲
 - Single Family Dwellings: 6,167 ▼
 - Multi-Family Dwellings: 538 ▼
 - Median Household income: \$112,605 ▲
 - Median rent / mortgage: \$1,754 / \$2,295 ▲▲
 - Housing tenure: 33.6% rent / 66.4% own ▼▲
 - Attained High School Diploma: 97.3% ▲
 - Attained Bachelor's Degree: 55.8% ▲
 - Unemployment rate: 5.7% ▼
 - Housing Density: 0.83 dwelling units / acre ▼
 - Population Density: 1,490 residents / square mile ▼
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT



- Creation of new mixed-use center
- Affordable housing options

SERVICES AND FACILITIES



- Continue expansion of facilities as development occurs.

PARKS AND OPEN SPACE



- Preserve natural features

WORKFORCE AND EDUCATION



- Support new schools as development occurs.

TRANSPORTATION



- Ensure non-motorized connections between neighborhoods, including trail bridges where appropriate.
- Complete Summerlin Pkwy interchange



Click each strategy to read more. Metrics for each topic are highlighted on the following pages

ATTY FEE MOT - 0197

20599

LAND USE AND DEVELOPMENT

TODAY

Summerlin West is mostly undeveloped at present, with only the Vistas, Paseos, Reverance, and Crossbridge villages under development.

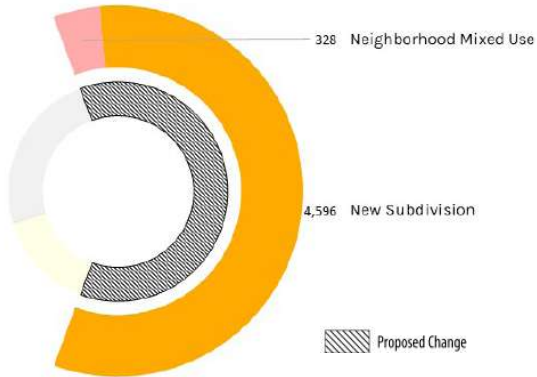
IN THE FUTURE

Summerlin West will continue to develop a range of upscale auto-oriented, gated, and exclusive single-family and multi-family developments. At build out, Summerlin West will have approximately six more villages with 20,250 homes, including a new mixed-use town and employment center near Summerlin Pkwy and I-215. As new subdivisions are built, nearly all the land west of the beltway will remain in place as-is pursuant to the Summerlin West Development Agreement.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.
In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



Summerlin West area: 8,050.5 acres

2050 PROJECTIONS

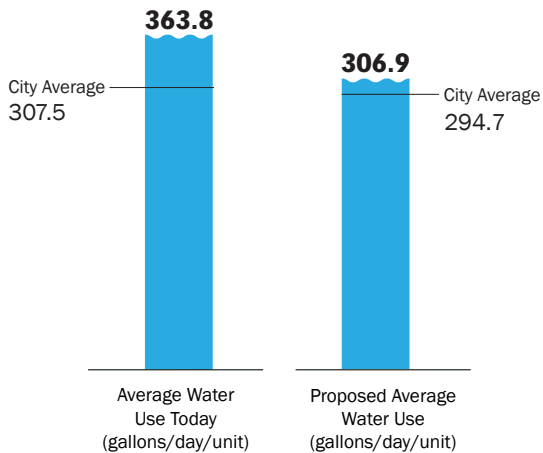
- Population: 74,788
- Total New Housing Units: 20,231 (13,255 Single family / 6,976 Multi family)
- New Commercial (1,000 GSF): 5,317,228
- Housing Density: 3.35 dwelling units / acre
- Population Density: 5,945 residents / square mile

KEY IMPLEMENTATION STRATEGIES & TOOLS

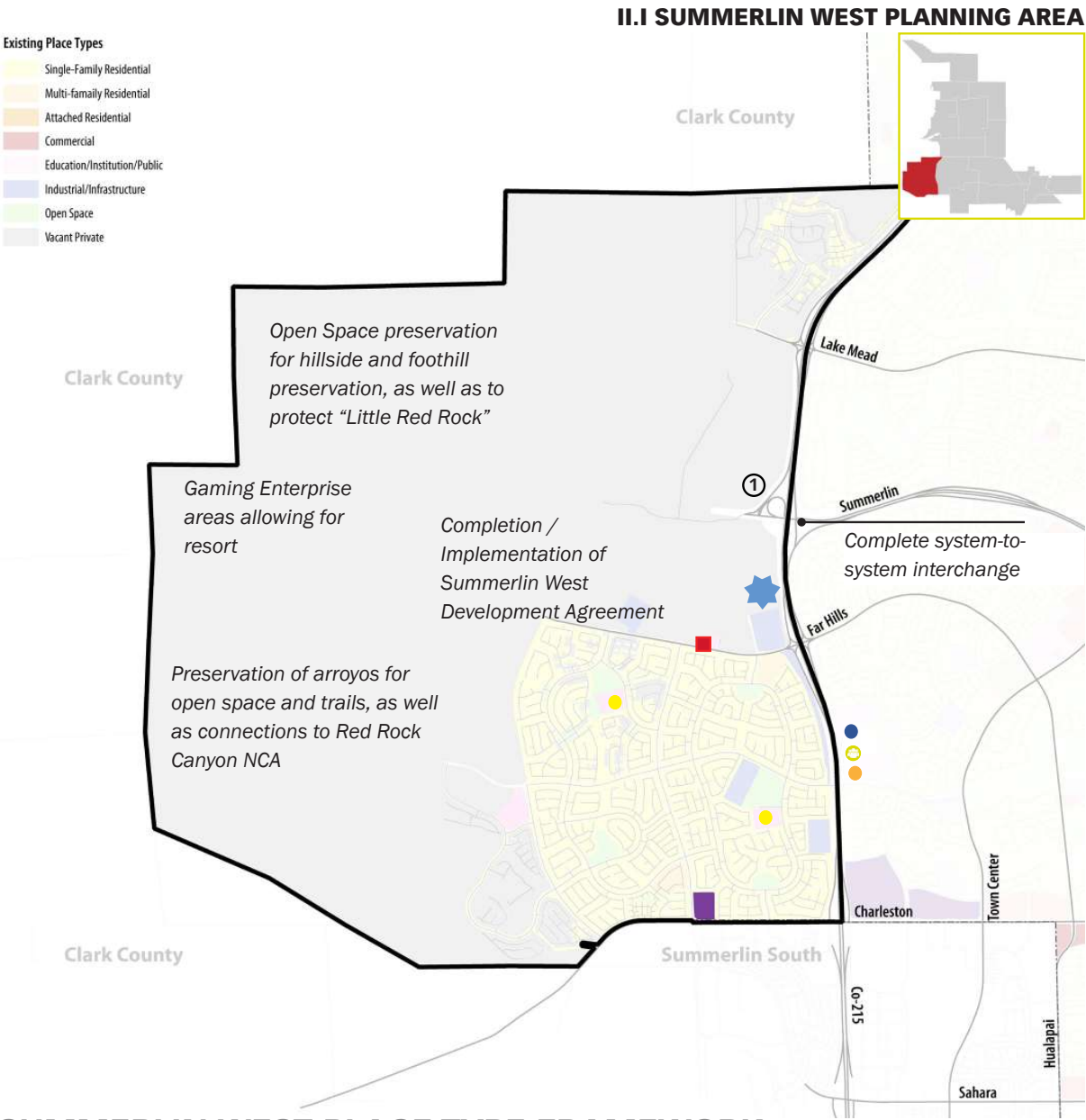
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture

WATER USAGE

Water consumption of residents in the planning area will be reduced with the new planned place types.



- Existing Place Types
- Single-Family Residential
 - Multi-family Residential
 - Attached Residential
 - Commercial
 - Education/Institution/Public
 - Industrial/Infrastructure
 - Open Space
 - Vacant Private



SUMMERLIN WEST PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- ① Future higher density mixed-use center

COMMUNITY FACILITIES

- CLV Fire Station
- LVMPD Substation
- CCSD School (elementary/middle/high/alternative or special)
- Library
- City or other public facility
- Veteran's Memorial Community Center

SERVICES



As with Summerlin North, while many City of Las Vegas services are likely supplemental in this area to those amenities provided through the Summerlin Association; Veteran's-Memorial Community Center is close, and many medical services are easily accessed at Summerlin Hospital. A new LVMPD substation will be complete in 2020 and fire protection in this is adequate, with two new stations to be added as development progresses.

PARKS AND OPEN SPACE



Red Rock Canyon's natural beauty and proximity to Summerlin West provide excellent opportunities for additional open spaces. The district contains abundant open spaces, and well-preserved washes and arroyos; adjacent foothills and Little Red Rock will continue to be protected. While up to 90 holes of golf are permitted, such courses may only be developed if conditions allow for their construction.

WORKFORCE



Currently, Summerlin West has only one area with limited neighborhood commercial at Summerlin Centre and along Town Center. Future plans include a new village and employment center and up to 5.85 million square feet of commercial, along with office and professional service uses, as well as a possible resort area with up to two resort casinos adjacent to Red Rock Canyon. Several new public and private schools have recently been constructed with more to be built over time as demand warrants and to avoid overcrowding at current elementary schools, Rogich MS, and Palo Verde HS.

TRANSPORTATION



Summerlin West is bounded to the east by the 215 Beltway. Much of the roads and infrastructure will be new. Summerlin West is adding to its extensive trail, bicycle, and shared-use path system with several opportunities for linear parks and trails along natural arroyos, as well as along the regional Beltway Trail. No transit service is available, but opportunities exist for micro transit and several transit centers with direct connections for express service to Downtown Las Vegas, the Strip, and the airport.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

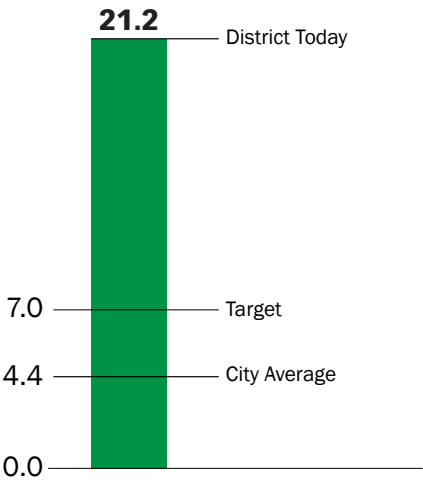
	Parks	95%	City 56%
	Schools	18%	31%
	Grocery and retail services	4%	19%

Percentage of total units within 2 mile drive:

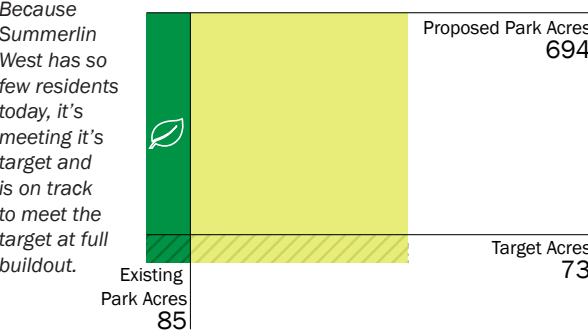
	Community Centers	47%	45%
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PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district

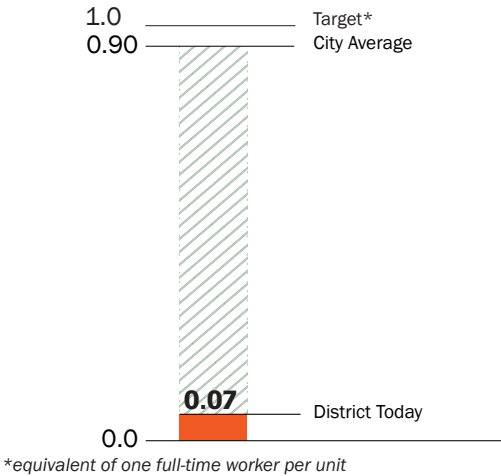


PARK ACRES NEEDED TO ACHIEVE TARGET



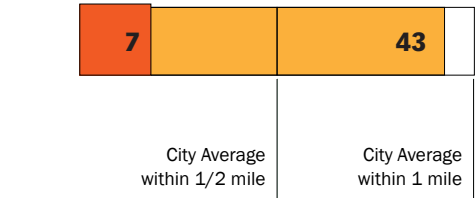
JOB SUPPLY IN DISTRICT

Average job opportunity per residential unit in the planning district



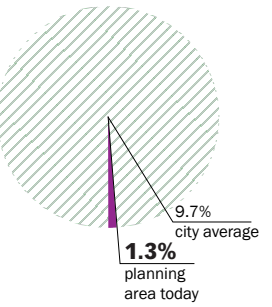
JOB PROXIMITY

Average job opportunity in proximity to the planning district



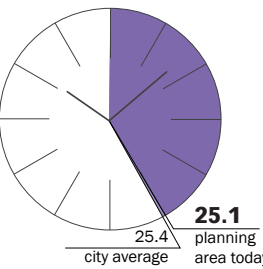
VEHICLE OWNERSHIP

Percentage of households without cars within the district



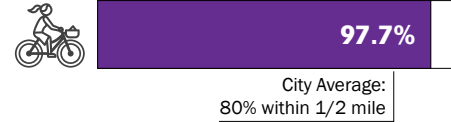
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

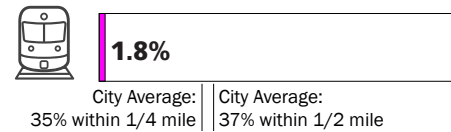


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



II.J LONE MOUNTAIN

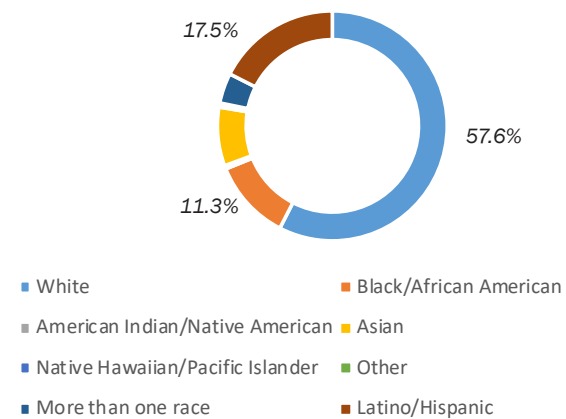


Lone Mountain, so named for the isolated mountain standing apart from the La Madre Mountains at the districts western edge, represents a transitional area between established and new suburban neighborhoods to lower-density areas. Due to its lower densities and array of neighborhood types, most of Lone Mountain has potential for subdivision retrofits and preservation of ranch-style neighborhoods.

DEMOGRAPHICS

- Current population: 56,848 ▲
 - Largest Age Group: 25 - 34 years (7,071) ▲
 - Persons per household: 2.86 ▲
 - Single Family Dwellings: 15,924 ▲
 - Multi-Family Dwellings: 4,559 ▼
 - Median Household income: \$68,989 ▲
 - Median rent / mortgage: \$1,264 / \$1,465 ▲▼
 - Housing tenure: 35.7% rent / 64.3% own ▲▼
 - Attained High School Diploma: 92.7% ▲
 - Attained Bachelor's Degree: 29.5% ▲
 - Unemployment rate: 6.4% ▼
 - Housing Density: 6.01 dwelling units / acre ▲
 - Population Density: 10,682 residents / square mile ▲
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- New neighborhoods west of the beltway should consider traditional neighborhood design for highest efficiency of services
- Mixed-use opportunities along Cheyenne

SERVICES AND FACILITIES

- Consider fire station in western sector

PARKS AND OPEN SPACE

- Improve open space connections

WORKFORCE AND EDUCATION

- Ensure jobs-housing balance

TRANSPORTATION

- Reduce barriers to walkability
- Look for opportunities to improve connectivity

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



SEE ALSO:
Cliff Shadows Special Area Plan

ATTY FEE MOT - 0200

20602

LAND USE AND DEVELOPMENT

TODAY

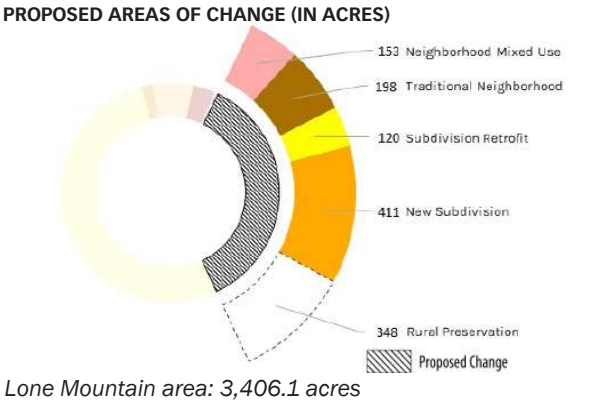
Lone Mountain has an established low-density suburban character. The Lone Mountain, Lone Mountain West, and Cliffs Edge master planned communities have diverse but separated neighborhoods.

IN THE FUTURE

Increased density will take the form of several neighborhood mixed-use centers along the Cheyenne corridor and near freeway interchanges. The areas around Mountain View Hospital north of the Las Vegas Technology Center and at Craig Rd-US-95 (future I-11) have potential to further develop as a transit-oriented development. Some areas of unincorporated Clark County may be annexed into the City. New neighborhoods may be developed in undeveloped areas within the district, as well as west of the 215 Beltway.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.
In order to capture the above projected land uses and densities, the following place types are planned for future change:



2050 PROJECTIONS

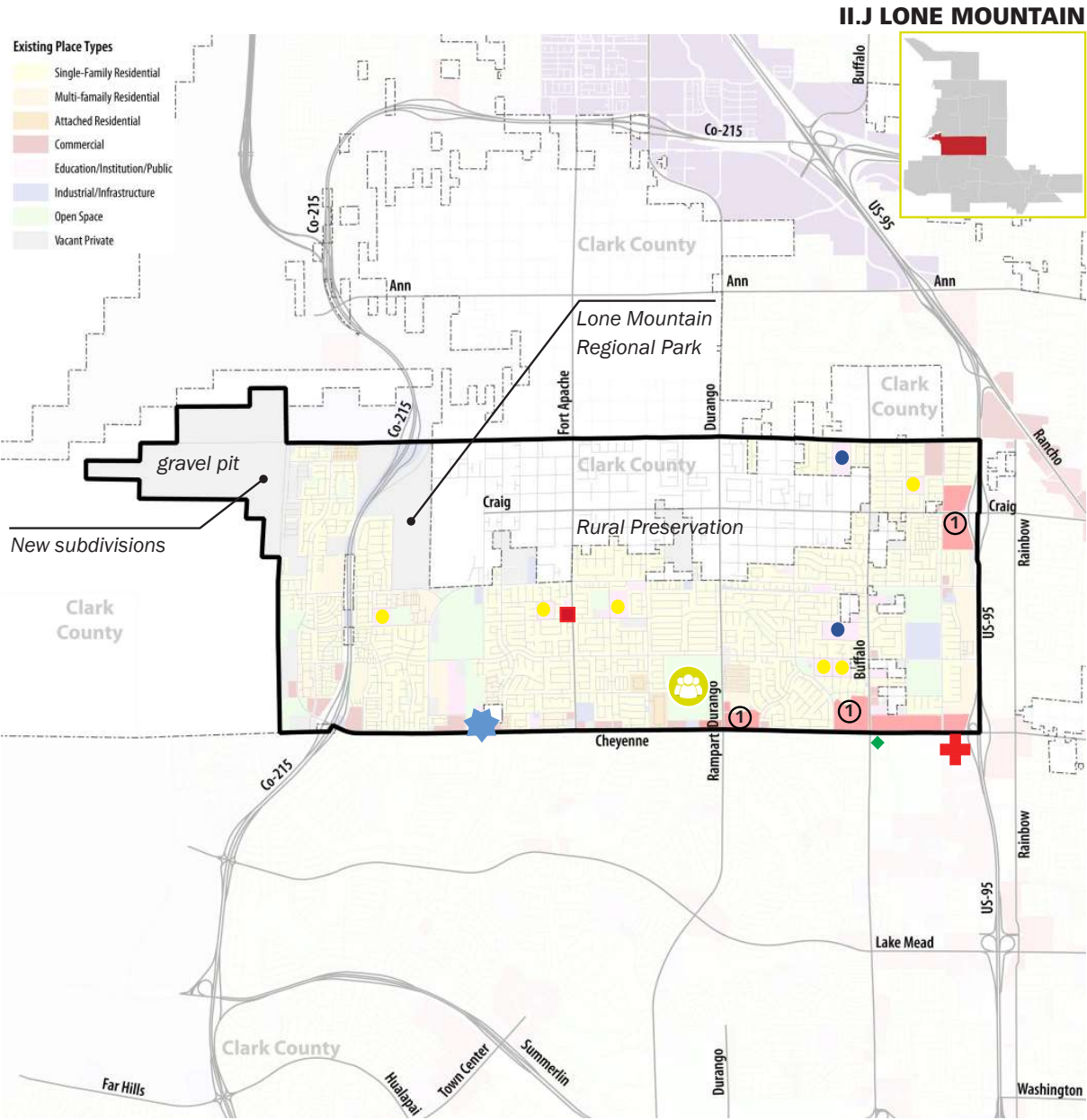
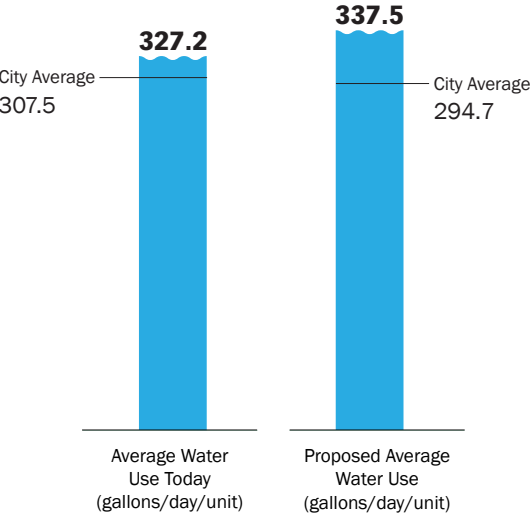
- Population: 71,136
- Total New Housing Units: 4,996 (4,851 Single family / 6,067 Multi family)
- New Commercial (1,000 GSF): 832,619
- Housing Density: 7.48 dwelling units / acre
- Population Density: 13,367 residents / square mile

KEY IMPLEMENTATION STRATEGIES & TOOLS

- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture

WATER USAGE

The average water consumption of residents in the planning area will increase with projected new subdivisions. If the area develops with denser, more traditional neighborhood design, that will help lower the average.



LONE MOUNTAIN PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- ① Mixed-use centers

COMMUNITY FACILITIES

- CLV Fire Station
- LVMPD Substation
- Hospital
- CCSD School (elementary/middle/high/alternative or special)
- City or other public facility
- Durango Hills Community Center and golf course

ATTY FEE MOT - 0201

20603

SERVICES



Lone Mountain has several major city and regional public community facilities, including Durango Hills Community Center and Golf Course. However, it lacks fire stations in the western quarter of the district and near unincorporated areas. Lone Mountain is home to the LVMPD’s Northwestern Area Command and training center and has low crime rates.

PARKS AND OPEN SPACE



Lone Mountain has several large regional open spaces and parks, including Lone Mountain Regional Park, Majestic Park, Durango Hills Park and Community Center and parks and sports fields built within detention basins near the eastern edge of the district. The area would benefit from smaller neighborhood park along the Cheyenne corridor. Existing trails and bike lanes, including the Lone Mountain Trail, Beltway Trail, and the Alexander Rd corridor provide connections to other areas. The adjacent mountains and foothills provide additional opportunities for new open spaces, but require increased connectivity between urban trails and natural areas.

WORKFORCE



Employment areas are congregated along Cheyenne Avenue adjacent to the residential neighborhoods, and generally take the form of professional offices, services, and general retail located in strip malls and office parks. The closest major employment center is the Las Vegas Tech Center in Twin Lakes. A general increase in jobs and services will improve the jobs-housing balance. CCSD schools are interspersed throughout Lone Mountain. The area would benefit from a new high school and middle school on the western edge of the district.

TRANSPORTATION



Cheyenne Avenue and Lone Mountain Rd define the edges of the Lone Mountain district and serve as primary east-west corridors. Lone Mountain is disconnected from Summerlin North, and that lack of any form of connection has created a hard edge spanning 2.5 miles. Except for the area serving Mountain View Hospital, Lone Mountain’s low-density limits fixed-route transit; however, this area may be a candidate for both fixed-route express transit and microtransit circulators. Lone Mountain’s existing infrastructure of all types is fairly adequate, but system capacity and capital improvements must be considered in planning future development.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

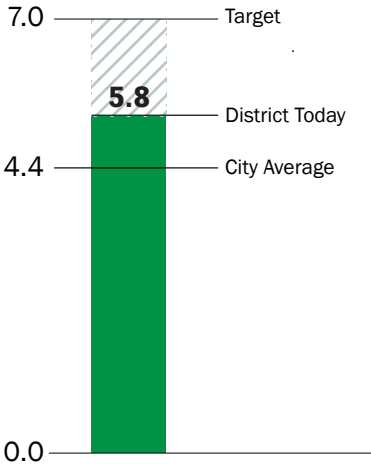
			City
	Parks	77%	56%
	Schools	21%	31%
	Grocery and retail services	13%	19%

Percentage of total units within 2 mile drive:

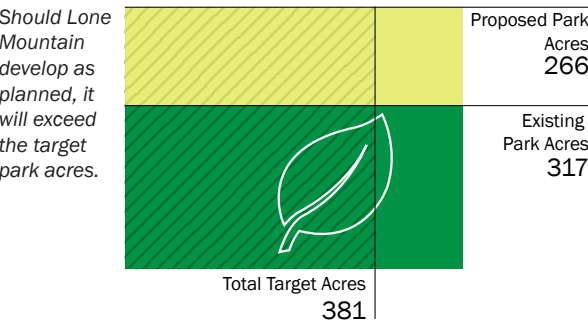
	Community Centers	52%	45%
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PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district

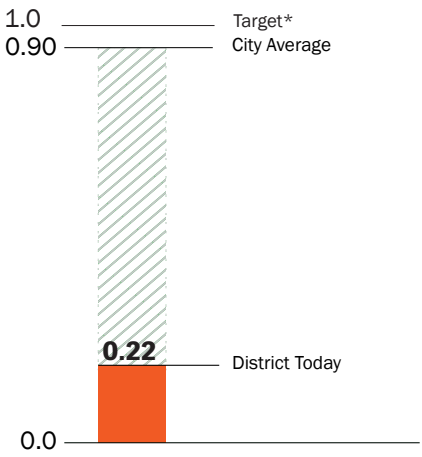


PARK ACRES NEEDED TO ACHIEVE TARGET



JOB SUPPLY IN DISTRICT

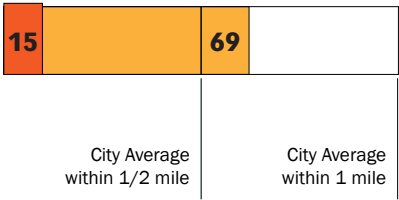
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

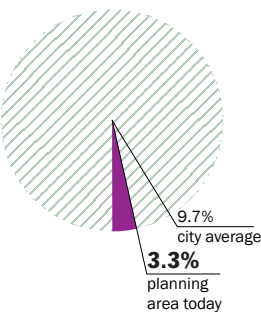
JOB PROXIMITY

Average job opportunity in proximity to the planning district



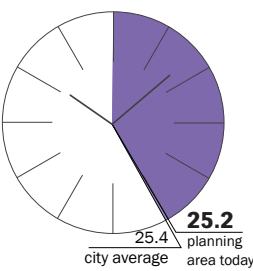
VEHICLE OWNERSHIP

Percentage of households without cars within the district



COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

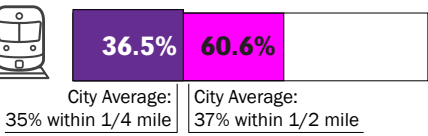


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



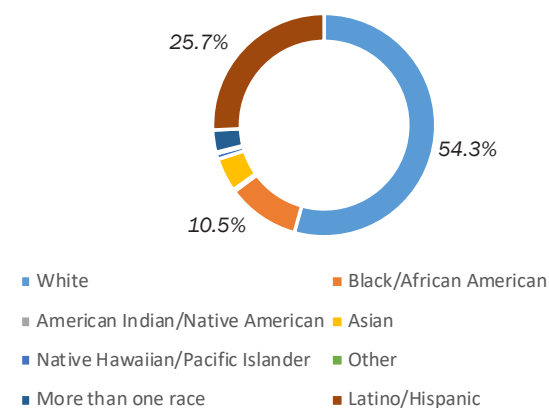


The suburbs and neighborhoods along the Rancho Dr corridor transition from older inner-ring suburbs to new subdivisions and “ranchos” moving northwest toward Centennial Hills. The area currently lacks cohesion, largely because of the lack of major city and community services. However, with a reimagination of Rancho Dr, and the addition of high capacity transit routes along it, Decatur Blvd, and Craig Rd, the area can develop a new identity that balances transit-oriented mixed-use and existing developments.

DEMOGRAPHICS

- Current population: 44,362 ▼
 - Largest Age Group: 45 - 54 years (6,469) ▲
 - Persons per household: 2.85 ▲
 - Single Family Dwellings: 12,868 ▲
 - Multi-Family Dwellings: 3,235 ▼
 - Median Household income: \$63,766 ▲
 - Median rent / mortgage: \$1,183 / \$1,374 ▲
 - Housing tenure: 31.1% rent / 68.9% own ▼
 - Attained High School Diploma: 88.9% ▲
 - Attained Bachelor's Degree: 20.2% ▼
 - Unemployment rate: 9.4% ▲
 - Housing Density: 4.63 dwelling units / acre ▼
 - Population Density: 8,155 residents / square mile ▲
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Balance rural preservation with increased services and access to transportation options

SERVICES AND FACILITIES

- Consider locating additional facilities in this area

PARKS AND OPEN SPACE

- Develop more accessible parks and open space

WORKFORCE AND EDUCATION

- Redevelop strip centers with more diverse employment opportunities
- Consider middle and high schools in this area to alleviate overcrowding elsewhere

TRANSPORTATION

- Emphasize complete streets to support transit
- Upgrade infrastructure, particularly in annexed areas
- Develop high capacity transit along Decatur Blvd and Craig Rd corridors, as well as rapid bus along Rancho Dr and North Rainbow Blvd

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



ATTY FEE MOT - 0203

20605

LAND USE AND DEVELOPMENT

TODAY

While this district is predominantly residential in character, several major commercial corridors extend north-south or east-west, providing a major node along Rancho Dr. A variety of rural preservation areas are intermixed throughout the area.

IN THE FUTURE

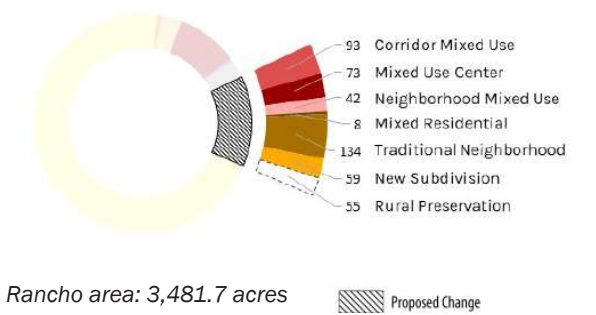
Along Rancho Dr, the Rancho area will see directed medium-to higher-density, suburban-oriented transit-oriented development to support existing well-established, yet older, shopping centers at key nodes that have potential to become neighborhood mixed-use centers. Existing large-lot “rancho” estates and older master planned communities, such as Los Prados and Rancho Alta Mira are stable.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



2050 PROJECTIONS

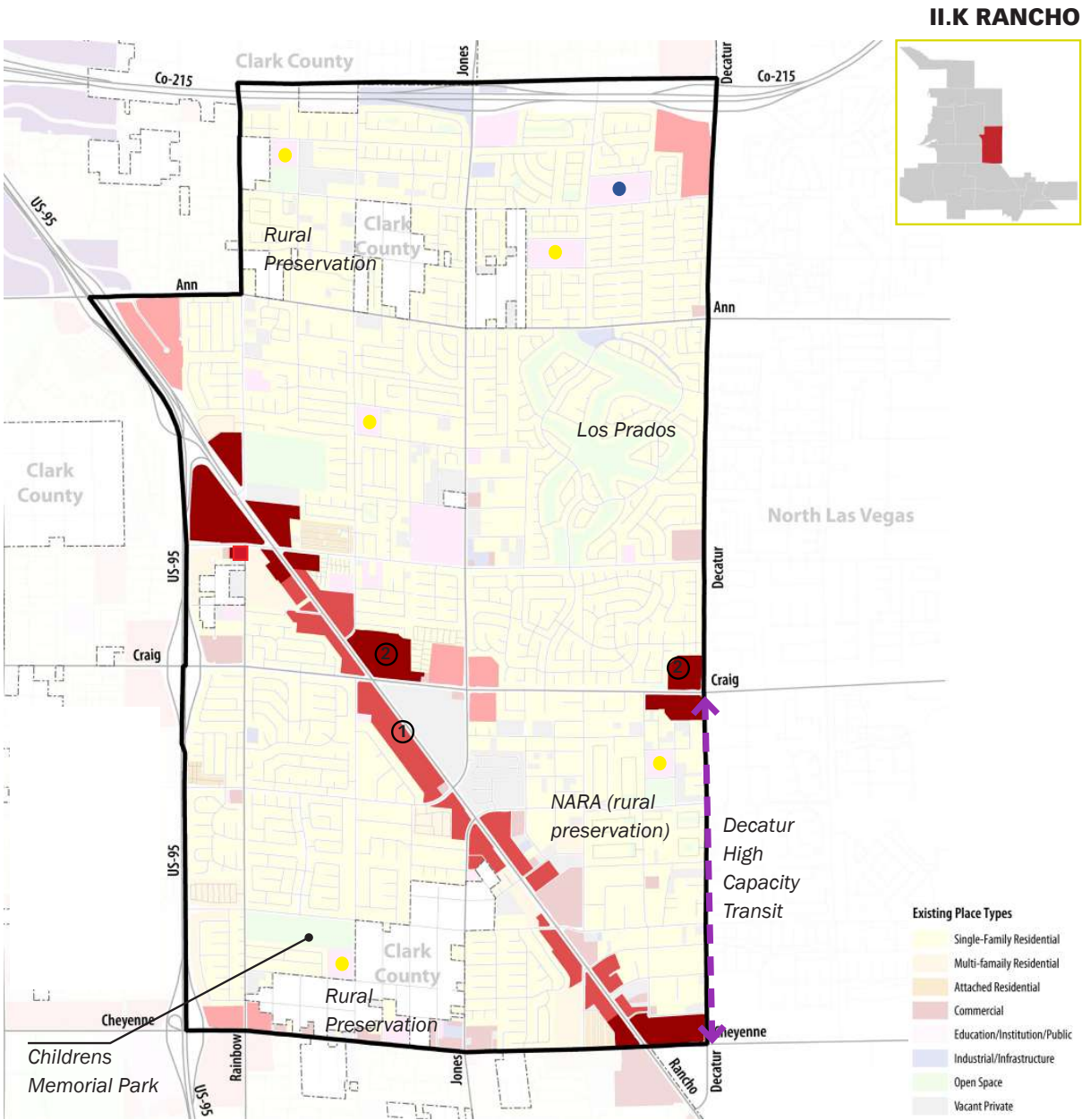
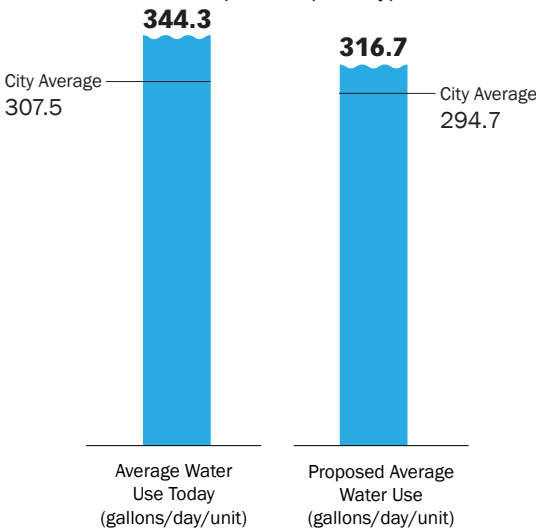
- Population: 56,468
- Total New Housing Units: 4,248 (376 Single family / 3,872 Multi family)
- New Commercial (1,000 GSF): 2,103,429
- Housing Density: 5.85 dwelling units / acre
- Population Density: 10,380 residents / square mile

KEY IMPLEMENTATION STRATEGIES & TOOLS

- Diverse Housing Options
- Infill housing
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Transit-oriented Development
- Placemaking through arts and culture

WATER USAGE

Water consumption of residents in the planning area will be reduced with the new planned place types.



RANCHO PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- Rancho Dr corridor improvements and upgrades from linear suburban strip malls to mixed-use corridor scaled for rapid bus
- Redevelopment opportunities

COMMUNITY FACILITIES

- CLV Fire Station
- CCSD School (elementary/middle/high/alternative or special)
- Overall lack of schools, LVMPD, community centers

Planned High Capacity Rapid Transit

ATTY FEE MOT - 0204

20606

SERVICES



Aside from the need for more parks and open spaces, Rancho similarly lacks major city and regional facilities. No City or community facilities exist, The low-density environment of the district highlights a need for a greater presence of city services and community resources.

PARKS AND OPEN SPACE



The Rancho area lacks significant amounts of parks and open space; while some neighborhood parks, such as Children’s Memorial Park and a few smaller parks can be found, there are noticeable voids and parks that are not easily accessible. Los Prados Golf Course can also be found within the northern edge of the district.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

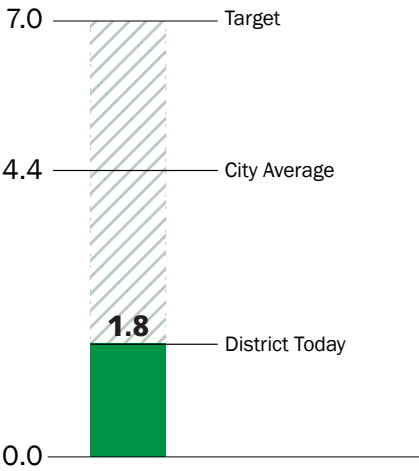


Percentage of total units within 2 mile drive:

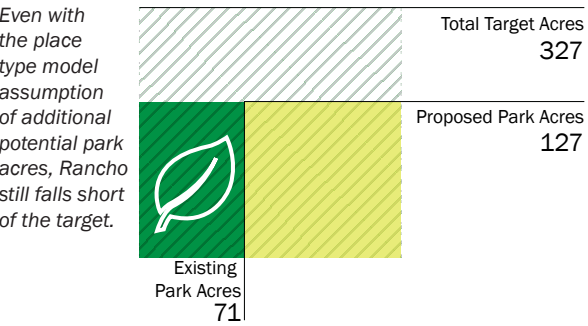


PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district



PARK ACRES NEEDED TO ACHIEVE TARGET



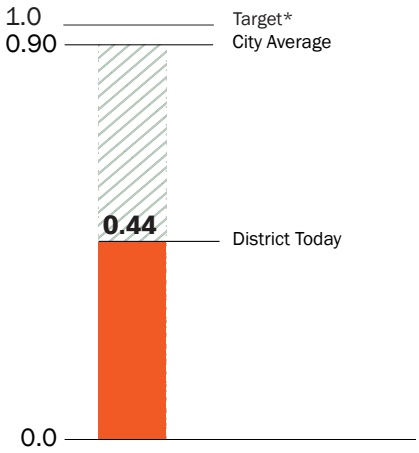
WORKFORCE



Economic centers consist predominantly of auto-oriented commercial corridors. Santa Fe Station Hotel-Casino is one of the few major or significant employers in the area. Most jobs and commercial activity consist of both small and large general retail; several shopping centers can actively be redeveloped now or in the near-term, with a number of other opportunities to improve their character and make them more walkable could exist long-term. Rancho also lacks public middle and high schools. While school overcrowding is not a major issue in this area, home-to-school distance and the ability to alleviate school overcrowding at other locations could benefit the area overall.

JOB SUPPLY IN DISTRICT

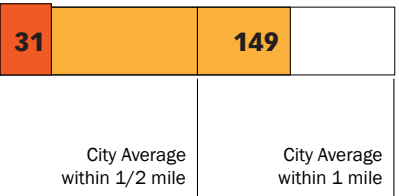
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

JOB PROXIMITY

Average job opportunity in proximity to the planning district



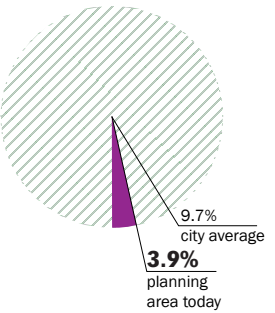
TRANSPORTATION



Rancho is bounded by Cheyenne Avenue the 215 Beltway and US-95 (possible future I-11) freeways, while the City of North Las Vegas is bordered on the east at Decatur Blvd. Rancho Dr itself serves as main street through the area; each of the corridors will continue to transition from suburban auto-oriented arterials toward transit-based complete streets, while rapid bus service and BRT will eventually serve Rancho Dr and Decatur Blvd respectively. While a few bicycle-friendly corridors exist, improvements are needed to help connect to areas to the north and northwest and with North Las Vegas. Because many areas were annexed, sewer improvements may be needed, and while the northern half of the district has relatively new infrastructure of all types, upgrades will eventually be needed long-term.

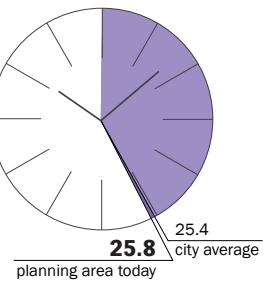
VEHICLE OWNERSHIP

Percentage of households without cars within the district



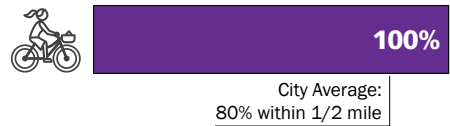
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

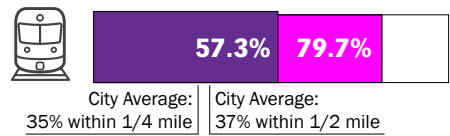


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



ATTY FEE MOT - 0205

III.L CENTENNIAL HILLS

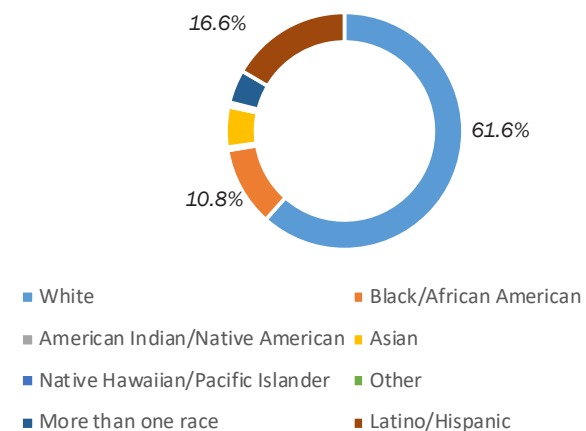


Centennial Hills is the major regional center for northwest Las Vegas. Centered at the Centennial Spaghetti Bowl (the intersection of the US-95 (future I-11) and I-215 Beltway), brings together northwestern neighborhoods. Previously envisioned as a northwestern “Town Center,” it has developed a commercial core, but largely as conventional suburban-style development, with some unique higher density neighborhoods and urban form. Because Centennial Hills has previously been identified as a location for more intense uses, this planning area will re-establish itself as a true regional center that’s adapted to existing development, while transforming key areas around its core.

DEMOGRAPHICS

- Current population: 62,126 ▼
 - Largest Age Group: 25 - 34 years (9,246) ▲
 - Persons per household: 2.77 ▼
 - Single Family Dwellings: 18,903 ▲
 - Multi-Family Dwellings: 4,783 ▼
 - Median Household income: \$71,074 ▲
 - Median rent / mortgage: \$1,257 / \$1,528 ▲
 - Housing tenure: 36.6% rent / 63.4% own ▼
 - Attained High School Diploma: 93.0% ▲
 - Attained Bachelor’s Degree: 27.9% ▲
 - Unemployment rate: 7.6% ▼
 - Housing Density: 6.21 dwelling units / acre ▲
 - Population Density: 10,422 residents / square mile ▲
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Embrace original vision to be a suburban town center

SERVICES AND FACILITIES

- Consider new LVMPD command station at town center

PARKS AND OPEN SPACE

- Celebrate natural settings of the area and access to places like Mount Charleston

WORKFORCE AND EDUCATION

- Additional schools to alleviate overcrowding

TRANSPORTATION

- Strengthen multi-modal and microtransit opportunities at the Centennial Hills Transit Center and rapid bus connection from Rancho Dr
- Complete Centennial Bowl system-to-system interchange and I-11 improvements

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



SEE ALSO:
Centennial Hills Town Center Special Area Plan

ATTY FEE MOT - 0206

20608

LAND USE AND DEVELOPMENT

TODAY

Centennial Hills, and Town Center itself, is comprised of a large mix of higher density new subdivisions; however, major land uses are still auto-oriented, with several large surface parking lots and few major multi-story buildings. Peripheral areas also contain large-lot residential ranch estates surrounded by unincorporated county pockets that may eventually be annexed.

IN THE FUTURE

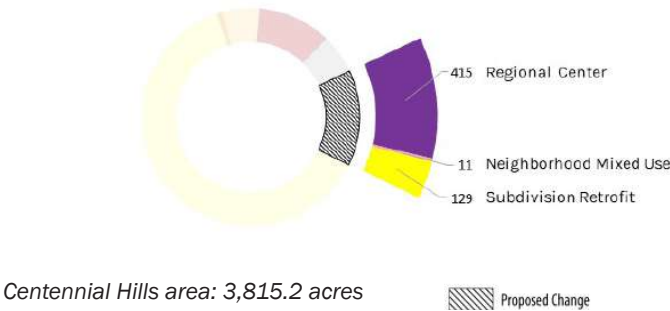
Centennial Hills will maintain its mix of traditional and suburban single-family development combined with large-lot residential estates. Unincorporated county pockets may eventually be annexed. Over time, the core part of the regional center will become more dense and intense as a suburban “Town Center.”

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



2050 PROJECTIONS

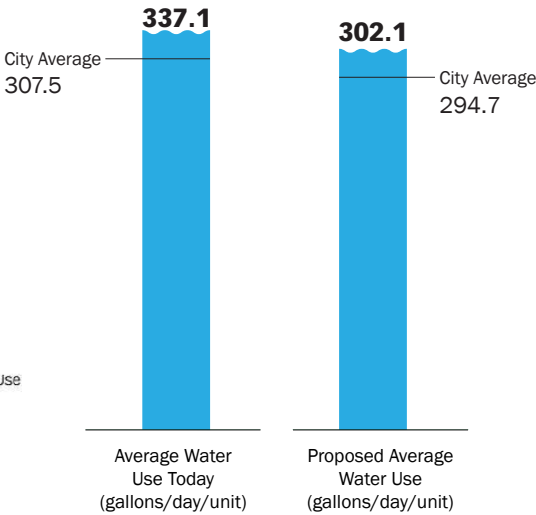
- Population: 82,915
- Total New Housing Units: 7,505 (438 Single family / 7,067 Multi family)
- New Commercial (1,000 GSF): 5,240,455
- Housing Density: 8.18 dwelling units / acre
- Population Density: 13,909 residents / square mile

LAND USE TOOLS

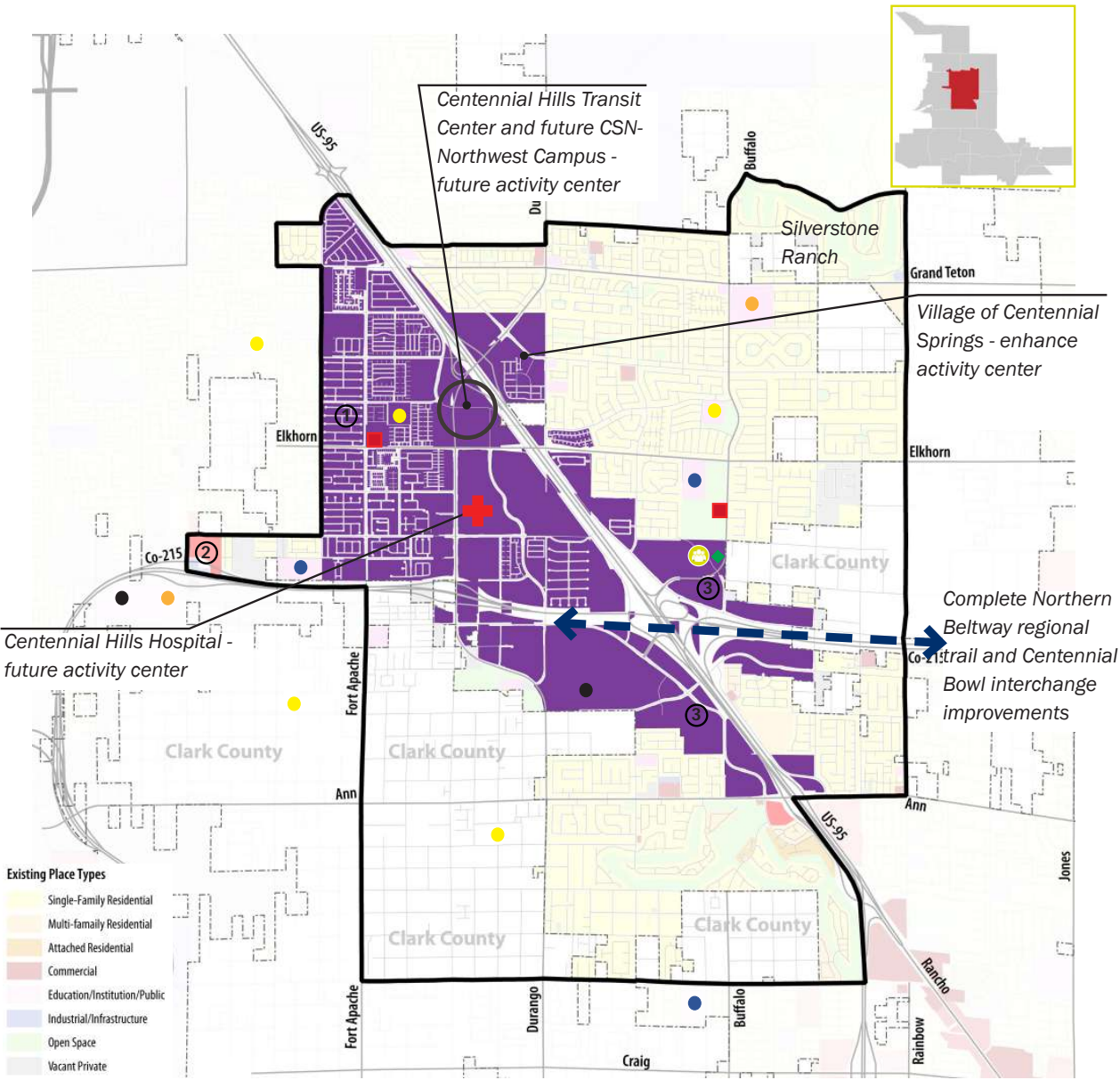
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture
- Diverse housing options

WATER USAGE

Water consumption of residents in the planning area will be reduced with the new planned place types.



II.L CENTENNIAL HILLS



CENTENNIAL HILLS PLACE TYPE FRAMEWORK
KEY REDEVELOPMENT OPPORTUNITIES

1. Retrofit existing subdivisions to improve connectivity, ensure future subdivisions follow Centennial Hills Town Center design standards for better Traditional Neighborhood Design
2. New mixed-use node
3. Long-term transformation of suburban-style commercial to mixed-use activity center

COMMUNITY FACILITIES

- CLV Fire Station
- Hospital
- CCSD School (elementary/middle/high/alternative or special)
- City or other public facility
- Centennial Hills Community Center, Library, Senior Center
- Transportation improvement

ATTY FEE MOT - 0207

20609

SERVICES



Centennial Hills is the major regional hub for northwestern districts and contains several city and regional facilities. Centennial Hills Park complex provides a number of community services and the area is anchored by Centennial Hills hospital. Although the area has low crime, it would be an ideal location for a new LVMPD area command. New fire stations may also be needed near the edges of the district, especially near low-density annexed areas.

PARKS AND OPEN SPACE



Centennial Hills has a wide variety of new parks, equestrian space, and other open spaces, much in the form of private or HOA pocket and neighborhood parks. Several major parks are located within the district including Thunderbird Park and the Centennial Hills Park complex, which also has a YMCA community center, senior center, pools, and library; a smaller community center, Cimmaron Rose, provides some recreational space. Painted Desert Golf course is located at the southern edge of the district

WORKFORCE



As a regional center, Town Center has a vast amount of new suburban commercial located around the major freeway interchanges between Ann Rd and Durango Dr. Major retail centers, auto-oriented uses, car dealerships, professional offices, and commercial activities located here. Centennial Hills has several public schools in close proximity to the new subdivisions; however, more new schools are needed to alleviate school overcrowding, specifically Arbor View and Shadow Ridge high schools. Centennial Hills will also be home to a branch campus of the College of Southern Nevada.

TRANSPORTATION



Town Center makes up most of the area, but several other small master planned communities are located throughout the district. Over time, the Centennial Spaghetti Bowl and the surrounding road network will be completed, as well as full-build out of the beltway. Centennial Hills Transit Center and park ‘n’ ride at the Elkhorn HOV interchange allows for express transit service to Downtown Las Vegas and the Strip, while it can be a base for local routes, circulators, carpoolers, microtransit or demand response service for the district. The 215 trail parallels the beltway and several other trails and bicycle-friendly complete streets can be found within the district. Most other infrastructure within Centennial Hills is relatively new.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

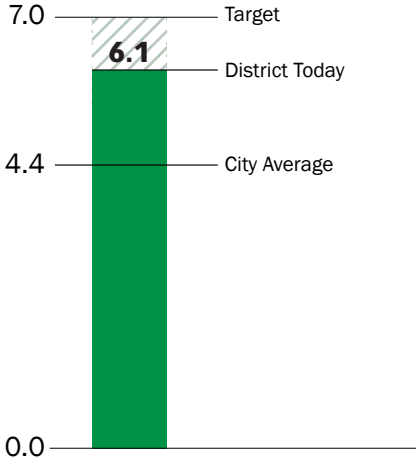


Percentage of total units within 2 mile drive:

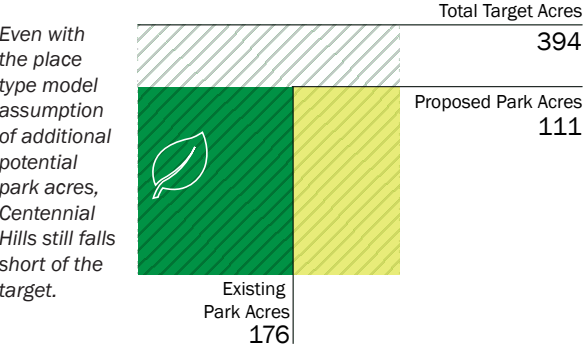


PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district

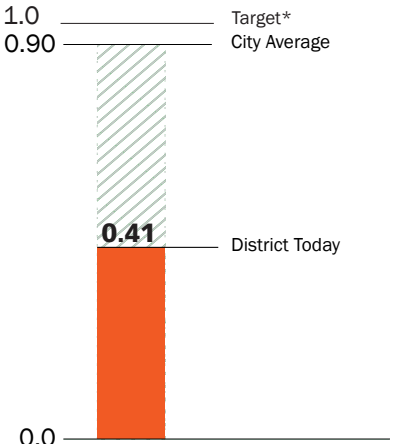


PARK ACRES NEEDED TO ACHIEVE TARGET



JOB SUPPLY IN DISTRICT

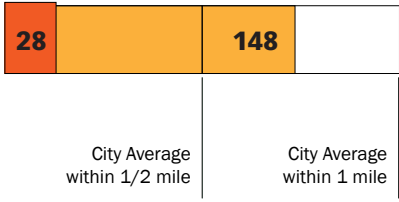
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

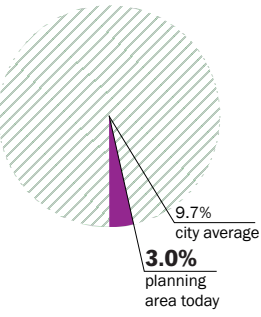
JOB PROXIMITY

Average job opportunity in proximity to the planning district



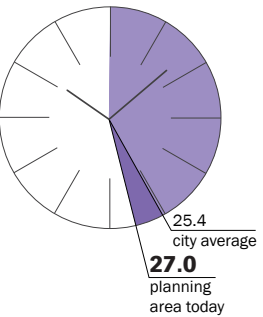
VEHICLE OWNERSHIP

Percentage of households without cars within the district



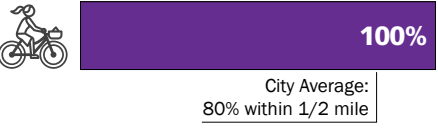
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

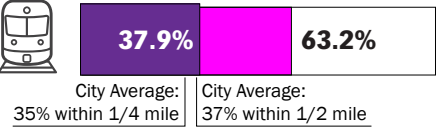


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



II.M LA MADRE FOOTHILLS



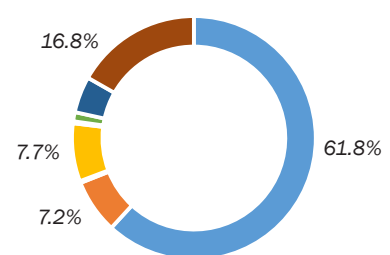
Along the northwestern edge of the valley is La Madre Foothills, an area comprised of a unique mix of master-planned communities, large-lot residential estates, and traditional suburban single-family development. Potential opportunities exist to develop further along the foothills and create new recreational opportunities along Box Canyon. Given its adjacency to Centennial Hills Town Center, rapid growth, and opportunity for future development, by 2050, La Madre Foothills will emerge as a cohesive suburban community.

DEMOGRAPHICS

- Current population: 25,401 ▼
- Largest Age Group: 25 - 34 years (4,901) ▲
- Persons per household: 2.77 ▼
- Single Family Dwellings: 8,967 ▼
- Multi-Family Dwellings: 1,484 ▼
- Median Household income: \$78,359 ▲
- Median rent / mortgage: \$1,259 / \$1,646 ▲▲
- Housing tenure: 37.8% rent / 62.2% own ▲▲
- Attained High School Diploma: 94.6% ▲
- Attained Bachelor's Degree: 33.9% ▲
- Unemployment rate: 4.7% ▼
- Housing Density: 3.96 dwelling units / acre ▼
- Population Density: 6,541 residents / square mile ▼

▲ ▼ Above / Below citywide average

Race & Ethnicity



- White
- Black/African American
- American Indian/Native American
- Asian
- Native Hawaiian/Pacific Islander
- Other
- More than one race
- Latino/Hispanic

KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Need for planned mixed-use/commercial centers

SERVICES AND FACILITIES

- Many additional services needed in this area

PARKS AND OPEN SPACE

- Develop more park space west of the beltway to connect to natural features

WORKFORCE AND EDUCATION

- Increase employment opportunities
- Consider new schools to alleviate overcrowding nearby

TRANSPORTATION

- Complete area-wide complete streets network
- Construct Nah Gah Kaiv (Sheep Mountain) Pkwy
- Implement microtransit and develop park and ride facilities to facilitate express transit.

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



ATTY FEE MOT - 0209

20611

2-146

LAS VEGAS MASTER PLAN

2-147

02. LAND USE + ENVIRONMENT

LAND USE AND DEVELOPMENT

TODAY

Linked together by the northwestern leg of the I-215 beltway, La Madre Foothills contains several new subdivisions developed over the last fifteen years, the largest being the Cliff Shadows and Providence master planned communities. Peripheral areas also contain large-lot residential ranch estates surrounded by county pockets that may eventually be annexed.

IN THE FUTURE

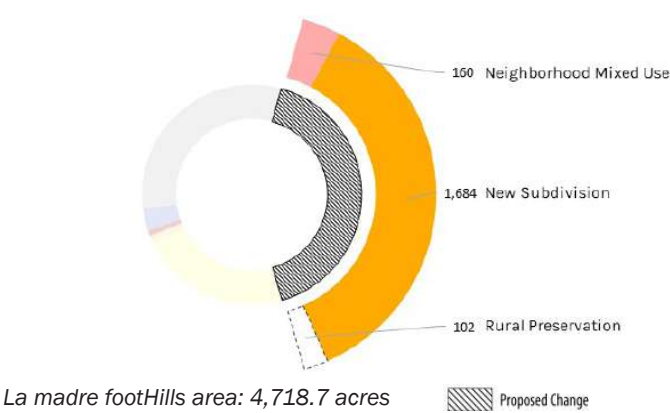
For areas west of the beltway, new subdivisions can be developed, but as there are few major neighborhood centers and an overall lack of a commercial areas, an opportunity exists for the development of a new suburban neighborhood center for the entire district.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



2050 PROJECTIONS

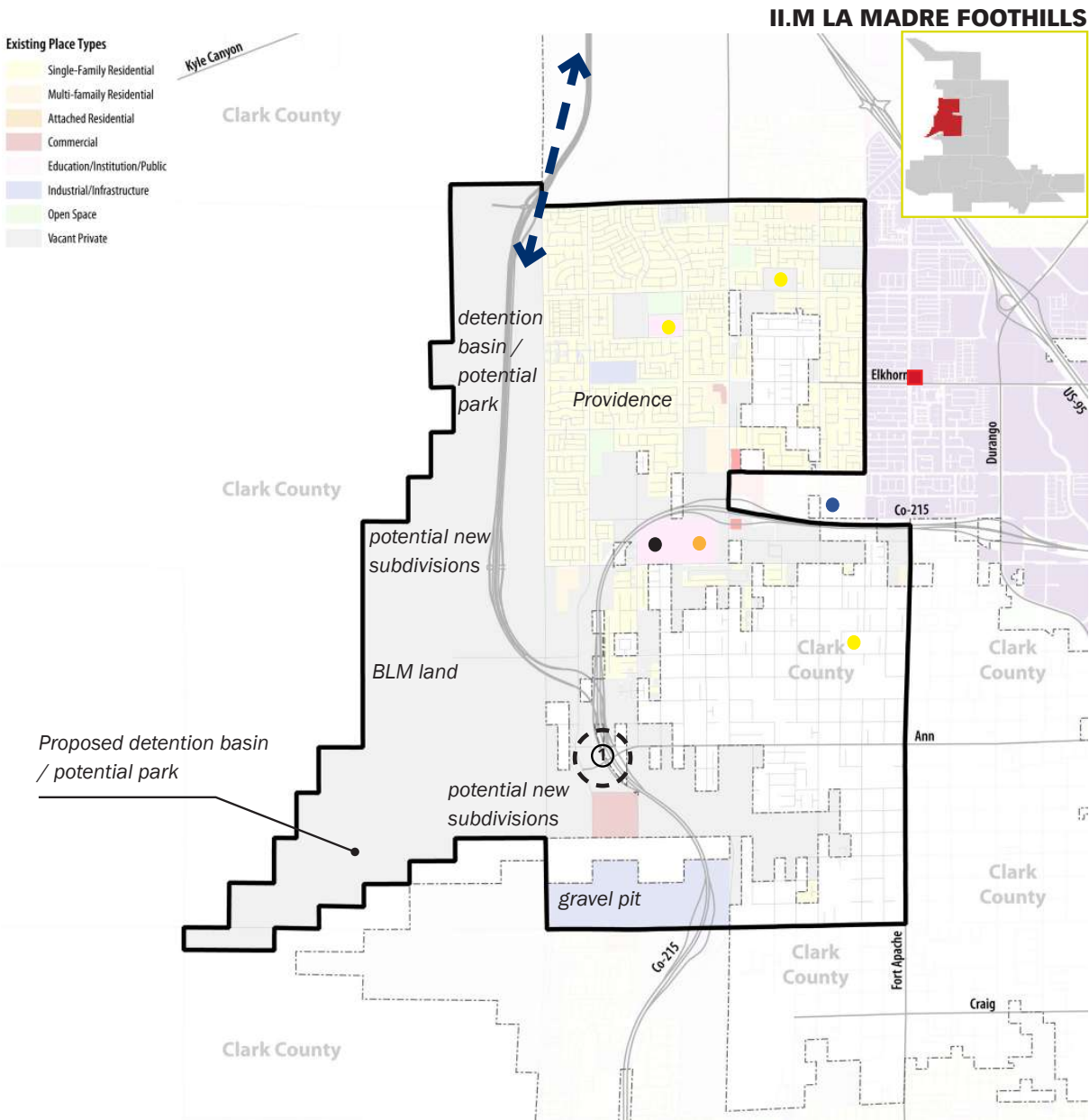
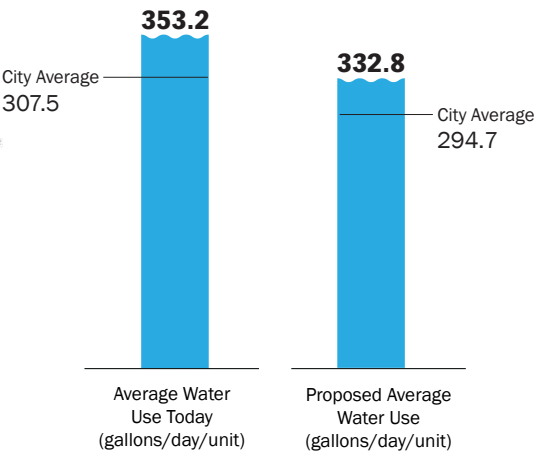
- Population: 48,227
- Total New Housing Units: 8,240 (5,995 Single family / 2,246 Multi family)
- New Commercial (1,000 GSF): 1,970,803
- Housing Density: 3.96 dwelling units / acre
- Population Density: 6,541 residents / square mile

LAND USE TOOLS

- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture
- Diverse housing options

WATER USAGE

Water consumption of residents in the planning area will be reduced with the new planned place types.



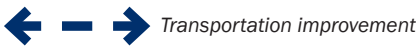
LA MADRE FOOTHILLS PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- ① Future Neighborhood Mixed-Use Opportunity

COMMUNITY FACILITIES

- CLV Fire Station
- CCSD School (elementary/middle/high/alternative or special)
- Overall lack of schools, LVMPD, community centers



ATTY FEE MOT - 0210

20612

SERVICES



La Madre Foothills lacks major city and regional facilities, including community centers and other civic services. With respect to public safety, at least one new fire station will be needed, and while crime is low in this area, a new LVMPD substations may be needed to serve much of the growing northwest.

PARKS AND OPEN SPACE



Several turnkey parks have been constructed in conjunction with the development of Providence, including the Promenade and Huckleberry, Knickerbocker, and Gilcrease Brothers parks. A wide variety of new parks, equestrian space, and other open space could be developed in new subdivisions west of the beltway, with connections to Lone Mountain Regional Park and other parks along foothills.

WORKFORCE



La Madre Foothills currently lacks commercial activity and job centers. Residents rely on businesses located in Centennial Hills Town Center. Several new public schools have been constructed near the new subdivisions; however, more new schools are needed to alleviate school overcrowding, especially for Centennial and Arbor View High Schools. A major gravel pit and mining operation exists at the southern edge of the district, and a new regional public safety facility has been planned for the area.

TRANSPORTATION



While most infrastructure is relatively new, development been somewhat haphazard, leaving some areas lacking from complete streets, flood control, and trails. A major regional flood control facility helps prevent flooding from stormwater coming from Kyle Canyon and Mount Charleston; other facilities have been constructed for Box Canyon. While Centennial Hills Transit Center and park and ride allows for express transit service to Downtown Las Vegas and the Strip, no transit service is available for local routes, circulators, carpoolers, micro transit or demand response service. Several equestrian trails link the foothills and mountains with parks, while the 215 trail parallels the beltway providing a major connection between the northern and western valley. Eventually, Nah Gah Kaiv Pkwy will be constructed to link the Beltway with future I-11 to the north.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

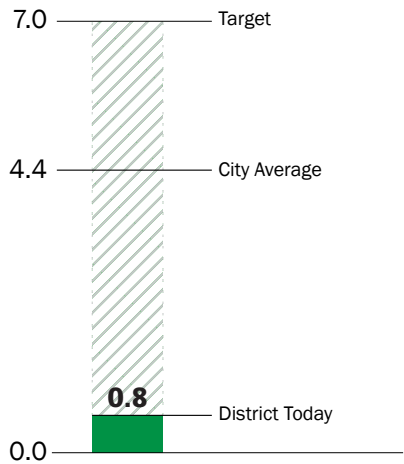
			City
	Parks	75%	56%
	Schools	18%	31%
	Grocery and retail services	2%	19%

Percentage of total units within 2 mile drive:

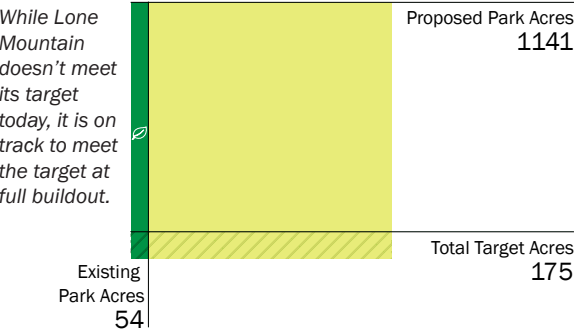
	Community Centers	0%	45%
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PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district

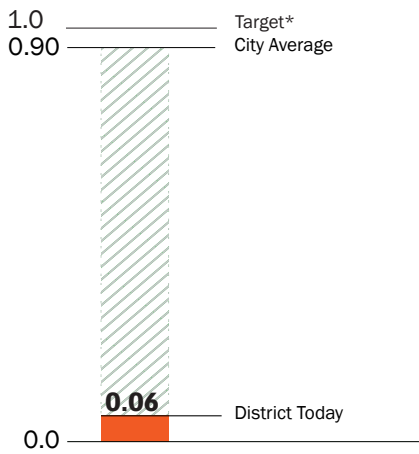


PARK ACRES NEEDED TO ACHIEVE TARGET



JOB SUPPLY IN DISTRICT

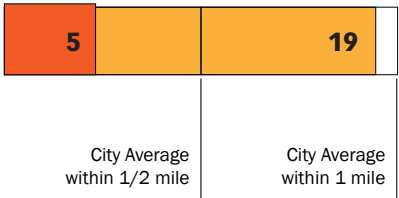
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

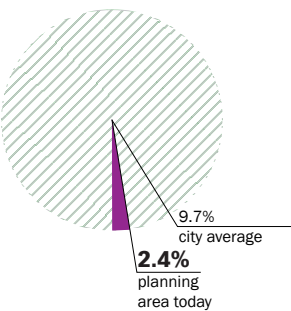
JOB PROXIMITY

Average job opportunity in proximity to the planning district



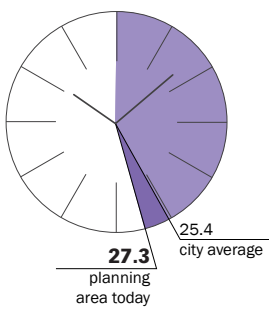
VEHICLE OWNERSHIP

Percentage of households without cars within the district



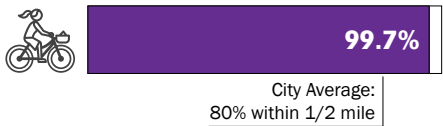
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

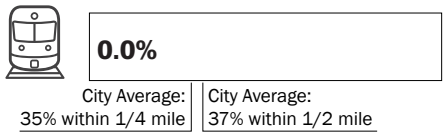


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



ATTY FEE MOT - 0211

II.N KYLE CANYON

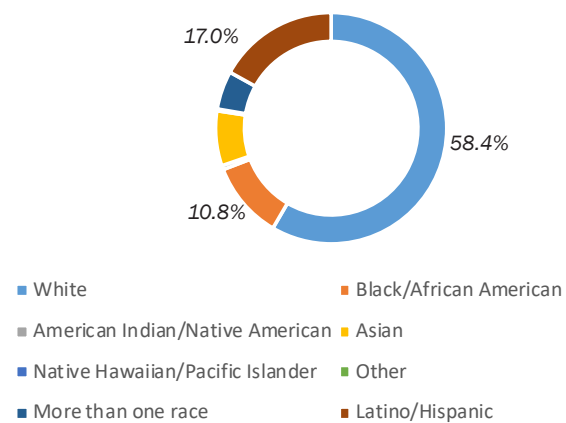


US-95 (future I-11) and Kyle Canyon Rd (NV-157) create major rural-urban transition point within the Kyle Canyon district. This is an area that is both the current northwestern gateway to the Las Vegas Valley from Northern Nevada and the Spring Mountains and is the home the city's newest subdivisions. The district character is predominantly detached single-family residential and has several areas under development agreements, open desert, and large-lot estates.

DEMOGRAPHICS

- Current population: 13,291 ▼
 - Largest Age Group: 35 - 44 years (2,420) ▲
 - Persons per household: 3.33 ▲
 - Single Family Dwellings: 3,894 ▼
 - Multi-Family Dwellings: 380 ▼
 - Median Household income: \$82,137 ▲
 - Median rent / mortgage: \$1,368 / \$1,648 ▲
 - Housing tenure: 29.3% rent / 70.7% own ▼
 - Attained High School Diploma: 95.7% ▲
 - Attained Bachelor's Degree: 29.1% ▲
 - Unemployment rate: 7.5% ▼
 - Housing Density: 1.24 dwelling units / acre ▼
 - Population Density: 2,471 residents / square mile ▼
- ▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Build out subdivisions as traditional neighborhood development
- Create mixed-use nodes at interchanges

SERVICES AND FACILITIES

- Provide array of city services and facilities as population increases

PARKS AND OPEN SPACE

- Continue to connect parks and open space as new development occurs

WORKFORCE AND EDUCATION

- Create employment centers
- Build new schools

TRANSPORTATION

- Strengthen multi-modal transportation options at park and rides to support future express bus service to Downtown and the Strip
- Construct Nah Gah Kaiv (Sheep Mountain) Pkwy

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



ATTY FEE MOT - 0212

20614

LAND USE AND DEVELOPMENT



TODAY

Kyle Canyon is a rapidly developing area. Existing large-lot estates that are rural preservation areas and new subdivisions in the Skye Canyon and Sunstone master planned communities dot the area’s eastern and northwestern edges, as well as along Kyle Canyon Rd extending west toward Mt Charleston.

IN THE FUTURE

Much of Kyle Canyon will see the eventual build-out of medium-low density suburbs currently under development agreements utilizing traditional neighborhood development. New shopping centers will continue to be constructed at major interchanges and have potential to become neighborhood mixed-use centers, especially at the Kyle Canyon and Skye Canyon Park interchanges.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

2050 PROJECTIONS

- Population: 47,063
- Total New Housing Units: 10,142 (8,238 Single family / 1,904 Multi family
- New Commercial (1,000 GSF): 639,992
- Housing Density: 4.19 dwelling units / acre
- Population Density: 8,748 residents / square mile

LAND USE TOOLS

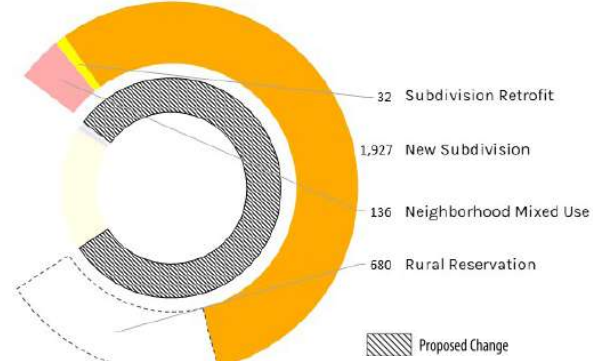


- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture
- Diverse housing options

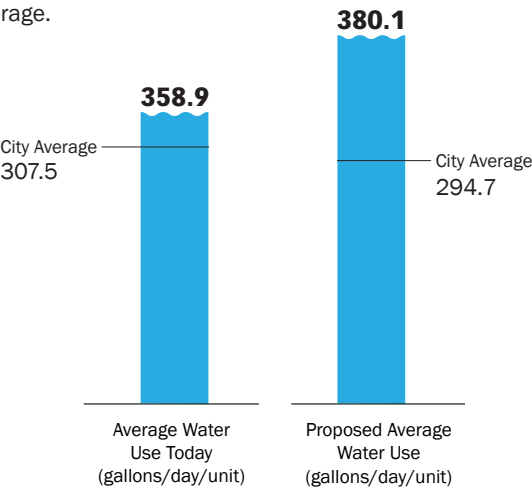
WATER USAGE

The average water consumption of residents in the planning area will increase with the currently approved developments. If the area develops with denser, more traditional neighborhood design, that will help lower the average.

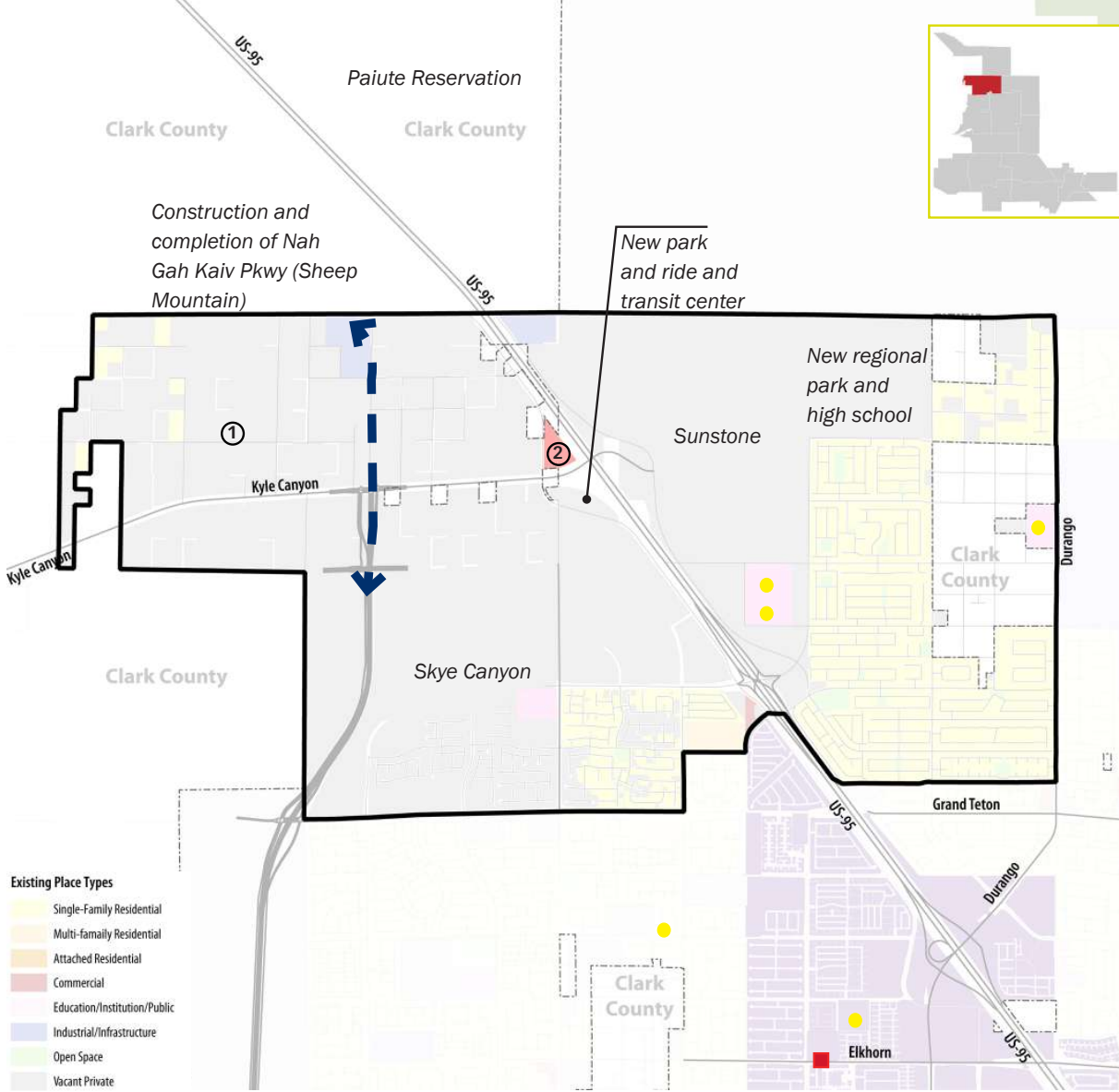
PROPOSED AREAS OF CHANGE (IN ACRES)



Kyle Canyon area: 3,442.9 acres



II.N KYLE CANYON



KYLE CANYON PLACE TYPE FRAMEWORK

KEY REDEVELOPMENT OPPORTUNITIES

- ①. Future subdivisions
- ②. New Mixed-Use node

COMMUNITY FACILITIES

- CLV Fire Station
- CCSD School (elementary/middle/high/alternative or special)
- Overall lack of schools, LVMPD, community centers

← — → Transportation improvement

ATTY FEE MOT - 0213

20615

SERVICES



Kyle Canyon lacks major city and regional facilities; those may be required as the development agreements are executed, and population thresholds are met. While some private services are currently or will be provided, the low-density environment of the district highlights a need for a greater presence of city services and community resources.

PROXIMITY OF DWELLING UNITS TO SERVICES
Percentage of total units within 1/2 mile walk:

	Parks	99%	City 56%
	Schools	5%	31%
	Grocery and retail services	6%	19%

Percentage of total units within 2 mile drive:

	Community Centers	0%	45%
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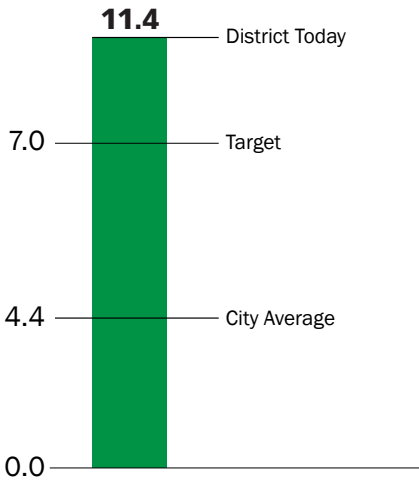
PARKS AND OPEN SPACE



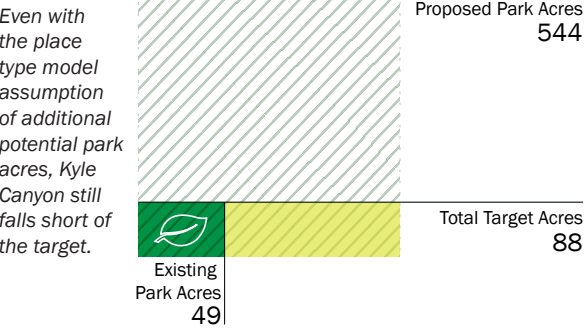
Despite being still mostly undeveloped, Kyle Canyon has a variety of mostly new parks and open spaces, including Skye Canyon Park; much of the park space is in the form of private or HOA pocket and neighborhood parks, but new parks, including Igor Soldo Park and a new regional park will be constructed near-term. As Skye Canyon and Sunstone develop, new parks, arroyo trails, and linear open spaces will be constructed as required by the respective agreements.

PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district



PARK ACRES NEEDED TO ACHIEVE TARGET



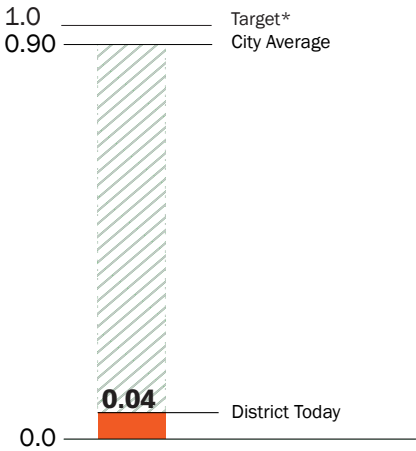
WORKFORCE



Few major or significant employers or commercial centers exist within Kyle Canyon. Limited new suburban commercial will be constructed at the Kyle Canyon and Skye Canyon Park interchanges, but major jobs and commercial activity are needed. At least one new major resort-casino will be constructed as part of Skye Canyon's Gaming Enterprise District. Kyle Canyon severely lacks public schools of all forms; new schools will be constructed over time and several will be under construction near-term to alleviate school overcrowding.

JOB SUPPLY IN DISTRICT

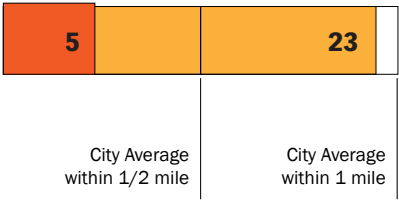
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

JOB PROXIMITY

Average job opportunity in proximity to the planning district



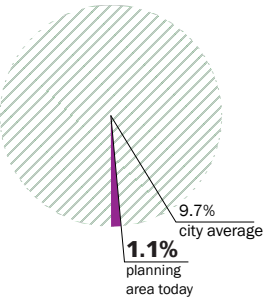
TRANSPORTATION



With the existing US-95 (future I-11) freeway and Kyle Canyon Rd (NV-157) as major corridors, as well as future development of the new Sheep Mountain Pkwy, Kyle Canyon is configured for suburban auto-oriented development. Bicycle friendly-layered complete streets and separate non-motorized trails line most arterials. No transit service is available to Kyle Canyon, but a park and ride at each major interchange may allow for future express transit service to Downtown Las Vegas and the Strip, while microtransit or demand response service could be made available to other low-density portions of the district or feed rural preservation areas along Kyle Canyon Rd. Nearly all of Kyle Canyon has new infrastructure of all types, but the extension infrastructure is dependent upon future new subdivisions being planned and existing ones being completed.

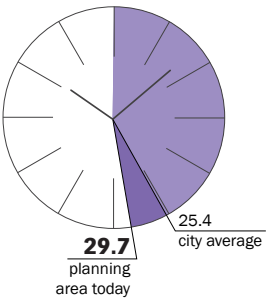
VEHICLE OWNERSHIP

Percentage of households without cars within the district



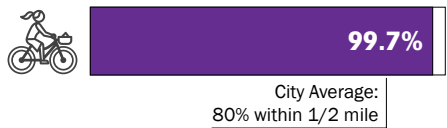
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

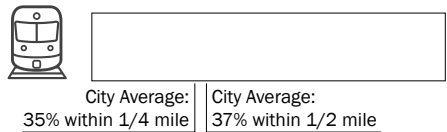


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility

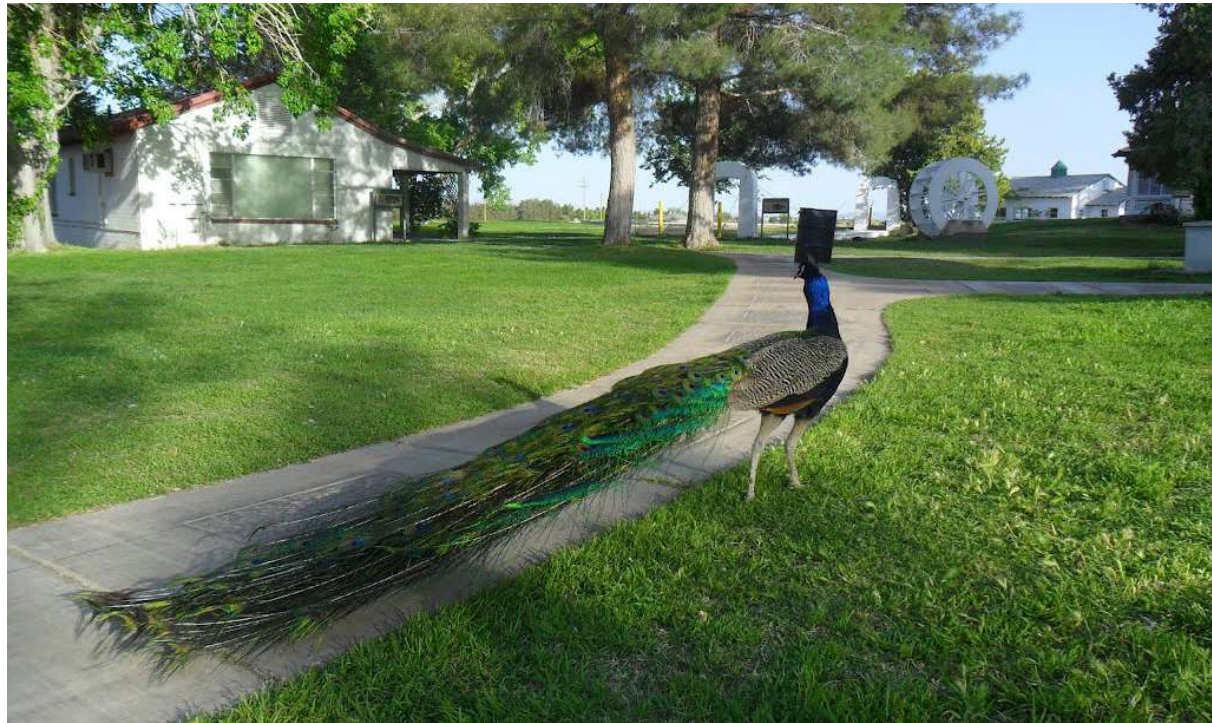


% of residents in planning area within 1/4 or 1/2 mile of transit stop



ATTY FEE MOT - 0214

II.O TULE SPRINGS



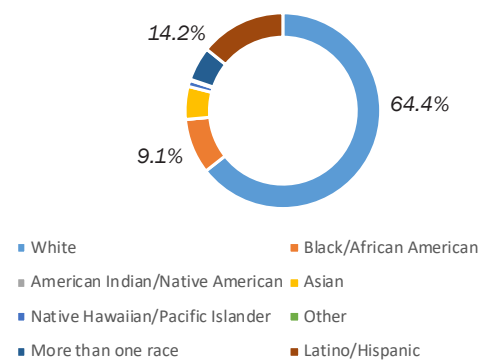
Tule Springs is bounded by the National Monument to the north and the I-215 beltway to the south, while county islands and scattered parcels make up the remaining edges. The City of North Las Vegas on the east at Decatur Blvd is the eastern boundary. North of the 215 Beltway is Tule Springs, an area bordering the Monument and with a mix of traditional and suburban single-family development and large-lot residential estates, many containing ranch or small agricultural functions. Tule Springs continues to develop, but it lacks major commercial and retail services, despite the accessibility to impressive open space and recreational amenities.

DEMOGRAPHICS

- Current population: 27,672 ▼
- Largest Age Group: 35 - 44 years (3,587) ▲
- Persons per household: 3.03 ▲
- Single Family Dwellings: 8,908 ▼
- Multi-Family Dwellings: 492 ▼
- Median Household income: \$95,954 ▲
- Median rent / mortgage: \$1,565 / \$1,858 ▲
- Housing tenure: 20.9% rent / 79.1% own ▼
- Attained High School Diploma: 94.2% ▲
- Attained Bachelor's Degree: 32.1% ▲
- Unemployment rate: 6.4% ▼
- Housing density: 3.24 dwelling units / acre ▼
- Population density: 6,110 residents / sq. mile ▼

▲ ▼ Above / Below citywide average

Race & Ethnicity



KEY IMPLEMENTATION STRATEGIES

LAND USE AND DEVELOPMENT

- Opportunities for large-lot estates and rural preservation
- Create more local-serving business and employment opportunities

SERVICES AND FACILITIES

- New Fire / LVMPD area command; new CLV facilities, community centers, and infrastructure needed in the area

PARKS AND OPEN SPACE

- Increase park space in areas near county islands
- Convert Silverstone Ranch to accessible open space

WORKFORCE AND EDUCATION

- Create employment centers
- Build new schools

TRANSPORTATION

- Upgrade aging infrastructure
- Strengthen the trail network to improve access to significant natural resources
- Implement microtransit and develop park'n'ride facilities.

Click each strategy to read more. Metrics for each topic are highlighted on the following pages



ATTY FEE MOT - 0215

20617

LAND USE AND DEVELOPMENT

TODAY

Tule Springs is comprised of a mix of new subdivisions and large-lot residential ranch estates surrounded by unincorporated county pockets that may eventually be annexed.

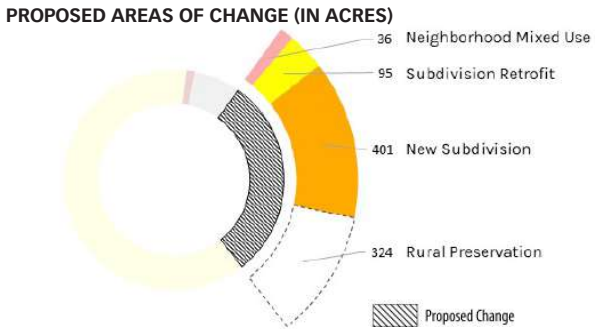
IN THE FUTURE

Significant land is available for medium-low density suburban development, while certain rural preservation areas should remain protected. Existing large-lot estates and newly master planned communities line Decatur Blvd on the district's eastern edge, as well as northwestern edges.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:



Tule Springs area: 2,898.7 acres

2050 PROJECTIONS

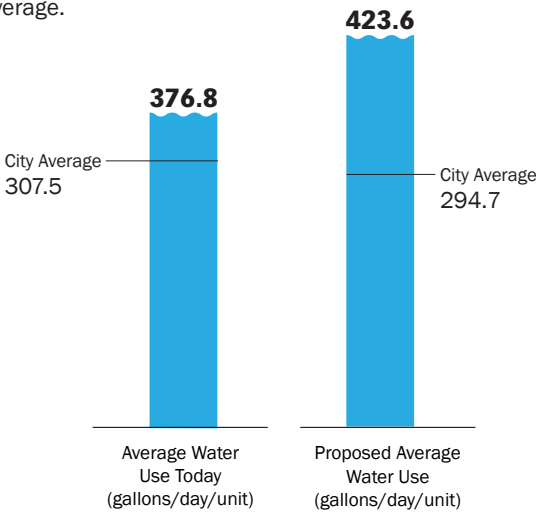
- Population: 36,097
- Total New Housing Units: 2,797 (2,290 Single family / 507 Multi family)
- New Commercial (1,000 GSF): 581,630
- Housing Density: 4.21 dwelling units / acre
- Population Density: 7,981 residents / square mile

LAND USE TOOLS

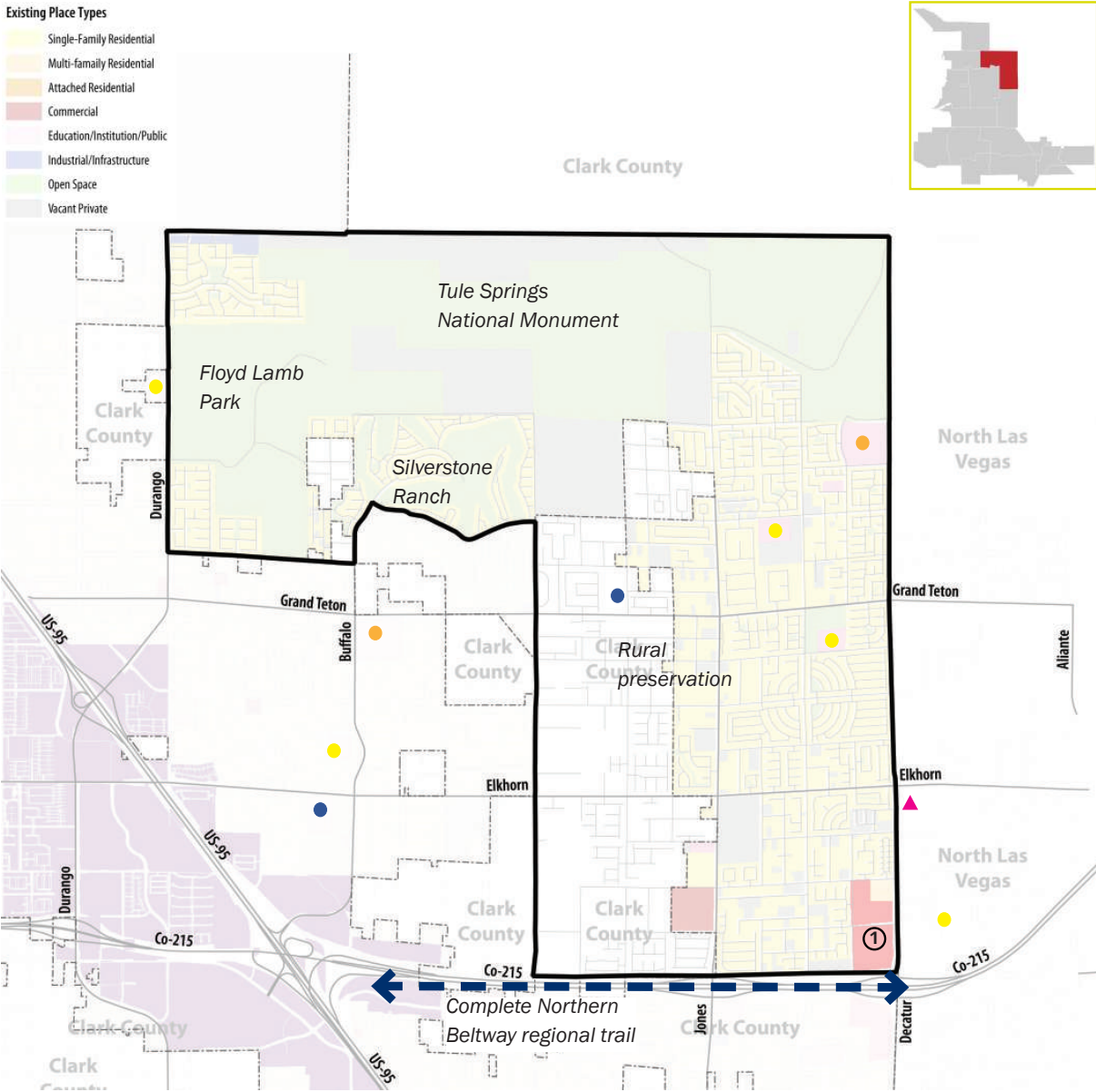
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture
- Diverse housing options

WATER USAGE

The average water consumption of residents in the planning area will increase with the currently approved developments. If the area develops with denser, more traditional neighborhood design, that will help lower the average.



II.O TULE SPRINGS



TULE SPRINGS AREA PLACE TYPE FRAMEWORK
KEY REDEVELOPMENT OPPORTUNITIES

COMMUNITY FACILITIES

SERVICES



Tule Springs lacks major city and regional facilities, although some do exist along Decatur Blvd and within the City of North Las Vegas as part of the Aliante Master Planned Community. The low-density environment and annexed territory within the district highlight a need for a greater presence of city services and community resources of all types.

PROXIMITY OF DWELLING UNITS TO SERVICES

Percentage of total units within 1/2 mile walk:

			City
	Parks	73%	56%
	Schools	17%	31%
	Grocery and retail services	3%	19%

Percentage of total units within 2 mile drive:

	Community Centers	0%	45%
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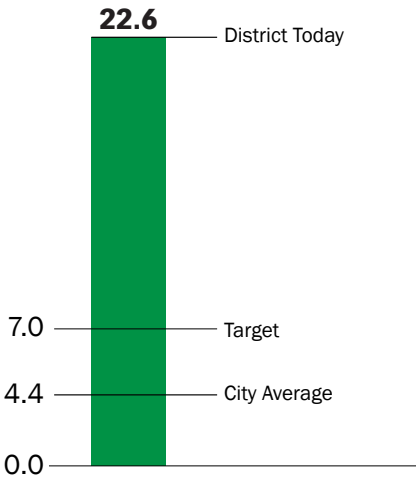
PARKS AND OPEN SPACE



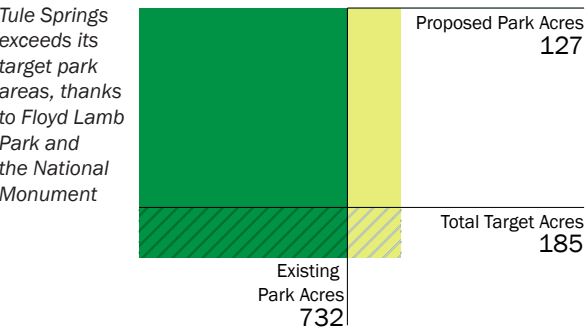
Tule Springs encompasses the historic Floyd Lamb Park at Tule Springs and the Tule Springs National Monument, which provide large expanses of open space and recreational opportunities. This area also has a wide variety of new parks, equestrian space, and other open spaces, including Teton Trails and Bradley Bridle Parks; much of the other park space is in the form of private or HOA pocket and neighborhood parks. Still, areas around unincorporated county islands lack parks and open space where noticeable voids exist and parks that are not easily accessible. The Silverstone Ranch development, a defunct golf course, may also be an opportunity for new open space.

PARK ACCESS

Acres of accessible park space per 1,000 residents within 1/4 mile of the planning district



PARK ACRES NEEDED TO ACHIEVE TARGET



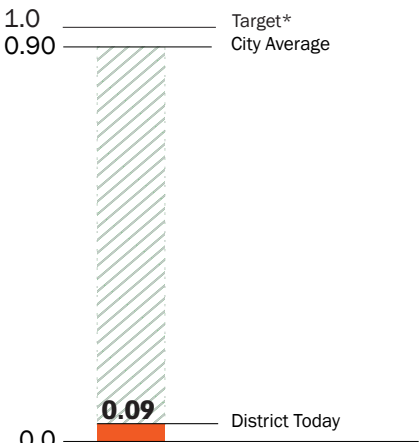
WORKFORCE



Few major or significant employers or commercial centers exist within Tule Springs. Limited new suburban commercial is located along Decatur Blvd, especially at its interchange with the beltway, but major jobs and commercial activity are needed. Tule Springs lack public schools near the new subdivisions; new schools will be constructed over time and several will be under construction near-term to alleviate school overcrowding, especially to alleviate the overcapacity at Arbor View and Shadow Ridge high schools.

JOB SUPPLY IN DISTRICT

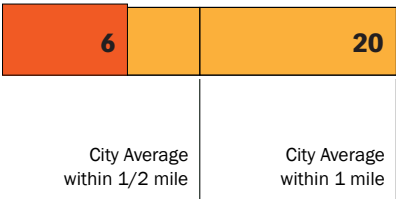
Average job opportunity per residential unit in the planning district



*equivalent of one full-time worker per unit

JOB PROXIMITY

Average job opportunity in proximity to the planning district



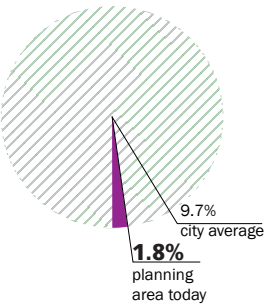
TRANSPORTATION



No transit service is provided in the area but a park and ride at the Decatur-215 interchange may allow for future express transit service to Downtown Las Vegas and the Strip, while microtransit or demand response service could be made available to other low-density portions of the district. A few bicycle-friendly corridors and trails do exist but could be greatly improved to help connect to the national monument and Floyd Lamb Park, as well as with North Las Vegas. Because many areas were annexed, some capital improvements may be needed over time, and while the northern and eastern half of the district has relatively new infrastructure of all types, upgrades may eventually be needed long-term.

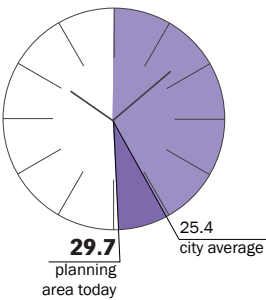
VEHICLE OWNERSHIP

Percentage of households without cars within the district



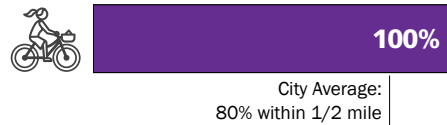
COMMUTE TIME TO WORK

Average commute time (in minutes) within the City

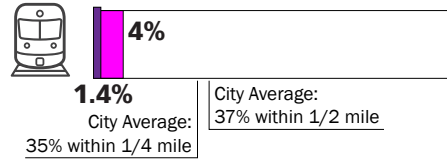


TRANSPORTATION ACCESS & EQUITY

% of residents in planning area within 1/2 mile of bike facility



% of residents in planning area within 1/4 or 1/2 mile of transit stop



ATTY FEE MOT - 0217

II.P

SNOW MOUNTAIN - NU WAV KAIV



The northern gateway to the City of Las Vegas spanning the future I-11 corridor is *Nu Wav Kaiv*, (“New Way a Ky”), a Southern Paiute name meaning “Snow Mountain” and reference to the snowcapped Mount Charleston in the Spring Mountains to the west. This area is currently undeveloped and characterized by several major features: the Upper Las Vegas Wash, which flows through this portion of the Upper Las Vegas Valley; the Tule Springs National Monument a vast linear open space extending 15 miles northwest-southeast from Corn Creek; mountains, foothills, and alluvial fans of the Spring Mountains, Sheep Range, Gass Peak, Kyle Canyon, Lee Canyon and Mount Charleston; and finally, the Snow Mountain Reservation of the Las Vegas Paiute Tribe. The City and the Paiute Tribe have committed to protecting and developing the Paiute Tribal lands jointly and have entered into an Interlocal Agreement that conveys land to the Tribe, leases a portion of the area for economic development, develops new infrastructure, and ensure sensitive development near the Upper Las Vegas Wash.

SERVICES

As no existing community resources or services exist, facilities and services will eventually be required and developed to serve this area; the closest such services are located to the southeast in the Kyle Canyon and Centennial Hills districts.

PARKS AND OPEN SPACE

Much of the open space in this area surrounds the Monument along the wash; other arroyos and washes will be protected from development and appropriate connections will be extended to the surrounding Federal lands and into the City, including along the former historic Las Vegas-Tonopah Railroad railbed. The Las Vegas Paiute Golf Resort is also located on the adjacent tribal land.

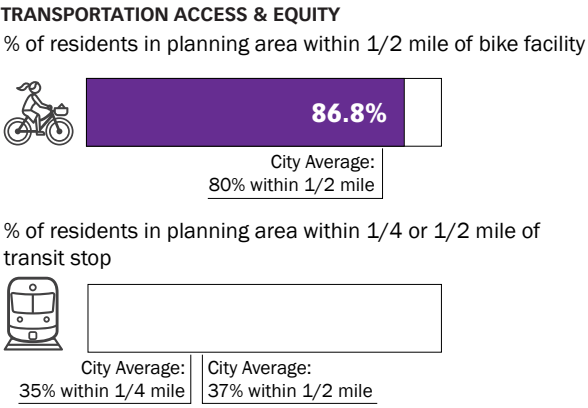
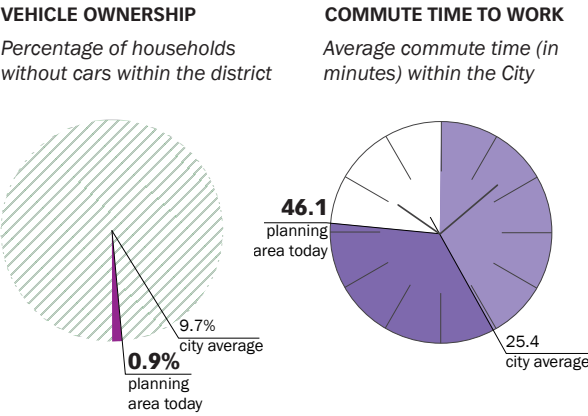
WORKFORCE

No current commercial or economic activities exists in Nu Wav Kaiv; however, the Tule Springs National Monument Act designates a job creation zone exclusive for commercial and light-industrial development. This area could develop as research and supportive business space for defense activities located at Creech Air Force Base and the Nevada National Security Site. The City of Las Vegas has entered into an Interlocal Agreement with the Las Vegas Paiute Tribe to convey the land north of the Snow Mountain Reservation into the Snow Mountain Reservation, as well as lease a portion of approximately one-thousand (1,000) acres of the southern portion of the Snow Mountain Reservation for an economic development and job creation zone. The Nu Wav Kaiv area will need new schools as it develops.



TRANSPORTATION

US-95 (future I-11) travels through Nu Wav Kaiv and extends northwest to Tonopah, Reno, and Carson City. While mostly upgraded for service to the Air Force bases and Nevada Test Site, it will eventually need to be upgraded to full interstate standards. A new north-south corridor, Sheep Mountain Pkwy will connect the area with the 215 Beltway. For any development to occur, new infrastructure, especially new roads, water, sewer and utility service, must be extended into the area, and only along appropriate corridors or easements, at a time for which service can be extended cost-effectively.



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LAND USE AND DEVELOPMENT

TODAY

This area is currently undeveloped and characterized by several major natural features, including desert alluvial fans and the Upper Las Vegas Wash.

IN THE FUTURE

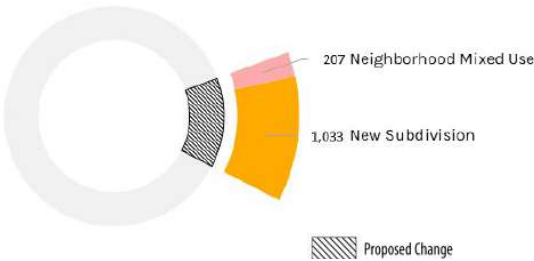
Large portions of Nu Wav Kaiv will remain protected, leaving only a few areas of focused development: The Upper Las Vegas Wash Plan area on the southeastern portion of the district, and the anticipated leasing of a portion of approximately one-thousand (1,000) acres of the Snow Mountain Reservation for an economic development and job creation zone.

PLANNED PLACE TYPES	
<div></div>	Regional Center
<div></div>	Mixed-Use Center
<div></div>	Corridor Mixed-Use
<div></div>	Neighborhood Center Mixed-Use
<div></div>	Mixed Residential
<div></div>	Traditional Neighborhoods
<div></div>	New Subdivision
<div></div>	Subdivision Retrofit

Click each Place Type to read more.

In order to capture the above projected land uses and densities, the following place types are planned for future change:

PROPOSED AREAS OF CHANGE (IN ACRES)



Nu Wav Kaiv area: 9,485.5 acres

2050 PROJECTIONS

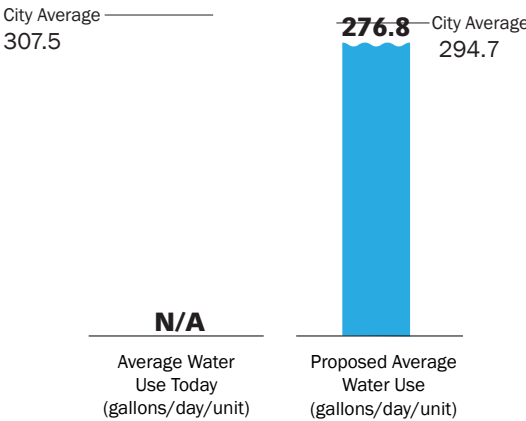
- Population: 18,032
- Total New Housing Units: 6,510 (3,616 Single family / 2,893 Multi family)
- New Commercial (1,000 GSF): 15,323,164
- Housing Density: 0.69 dwelling units / acre
- Population Density: 1,217 residents / square mile

LAND USE TOOLS

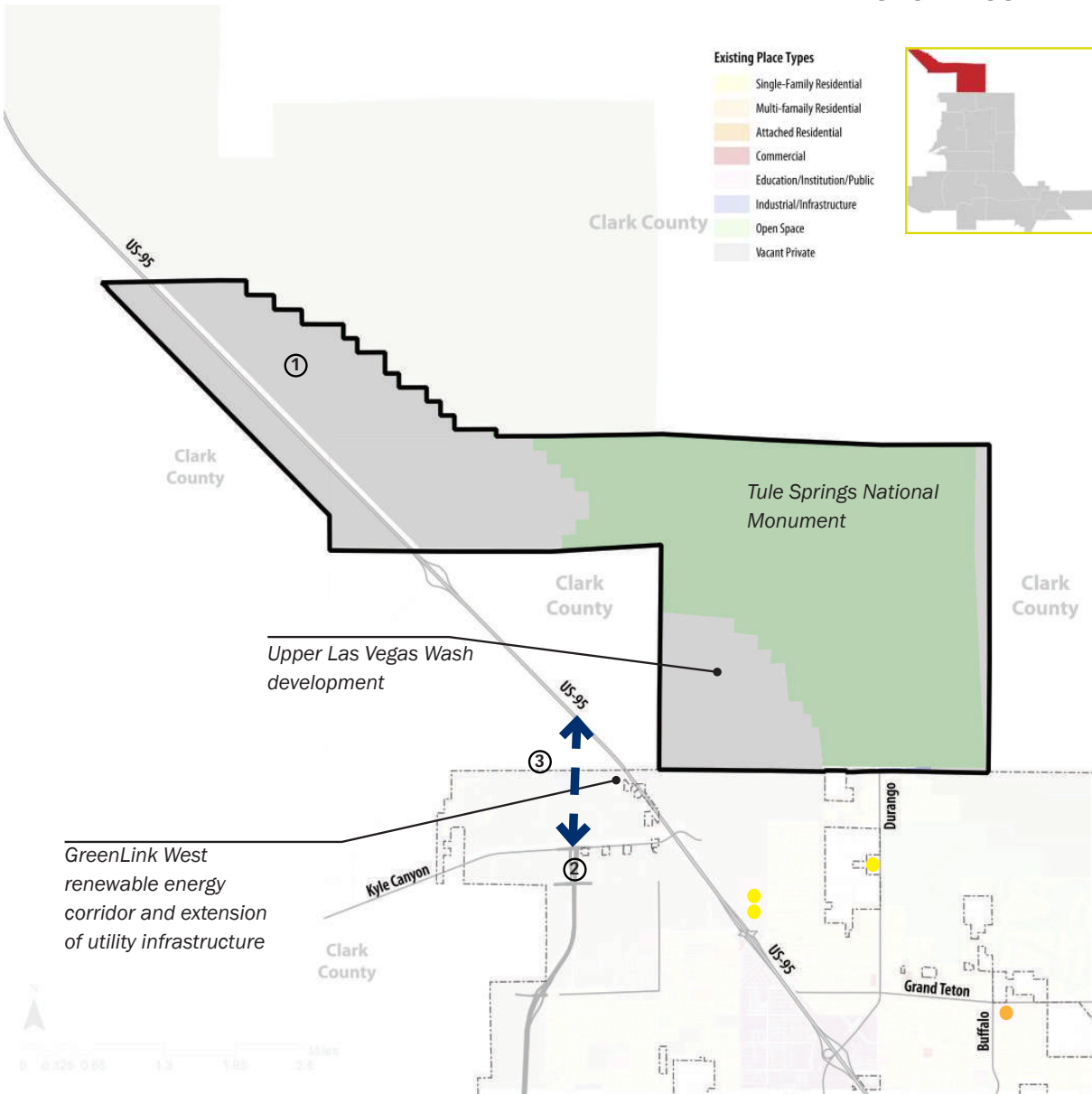
- Traditional Neighborhood Design
- Neighborhood Character
- Mixed-use
- Walkable site design
- Placemaking through arts and culture
- Diverse housing options

WATER USAGE

Projected water consumption of residents in the planning area with the new planned place types.



II.P SNOW MOUNTAIN



NU WAV KAIV PLACE TYPE FRAMEWORK

KEY OPPORTUNITIES

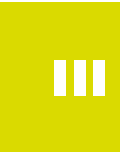
- Conveyance area - Las Vegas Paiute Tribe Snow Mountain reservation expansion
- Planned Sheep Mountain Pkwy connection to future I-11
- Future coordinated lease and planning with Las Vegas Paiute Tribe to develop Job Creation Zone (see Chapter 3: Workforce + Economic Development section)

COMMUNITY FACILITIES

- CCSD School (elementary/middle/high/alternative or special)
- Transportation improvement
- Overall lack of schools, city services, and infrastructure

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ENVIRONMENT

✓ NRS 278.160.1(f)

GOALS

- A. Protect, enhance, and restore natural features and resources of the Mojave Desert.
- B. Improve access and connectivity of open spaces for ecological, social, health, and quality of life benefits.
- C. Prioritize increasing tree canopy across all areas of the City for multiple public health and environmental benefits.
- D. Strengthen recreation and cultural opportunities for residents and visitors across the City.



III.A INTRODUCTION

This section highlights a vision and actionable strategies for the natural environment within the City of Las Vegas. This section includes recommendations for: natural features, urban forestry, parks, connectivity, urban agriculture and environmental justice.

This section focuses on the opportunities, challenges outcomes, objectives and connection with guiding principles for each of the sections. This section is connected to previous, ongoing and future city and regional planning efforts, and specifically linked to a concurrent Parks and Open Space Plan. Specifically, the park goals of this section focuses on the quantitative aspects of park space in Las Vegas in relation to projected growth, infill, redevelopment, and land use changes at city-wide and neighborhood-planning area scales for the next 30 years in the City. It also satisfies various requirements outlined in the Recreation Plan of NRS 278.160. This plan is supported by the concurrent CAPRA-accredited Parks and Open Space Plan that addresses specific park standards, guidelines, objectives, policies and priorities.

Recommendations in this section specifically align with 2050 Master Plan guiding principles, including:






- Protect, enhance, and restore natural features and resources of the Mojave Desert.
- Improve access and connectivity of open spaces for ecological, social, health, and quality of life benefits.
- Prioritize increasing tree canopy across all areas of the City for multiple public health and environmental benefits.
- Strengthen recreation and cultural opportunities for residents and visitors across the City.


Specific opportunities for the environmental component and embedded in recommendations for each of the sub-category and guiding principles include:

- Preserve and maintain open space as a balance to man-made development.
- Reclaim areas of environmental/ecological deterioration using available resources from the public, quasi-public and private sectors
- Plant 60,000 “Bulletproof” native and adaptive trees on public and private property that are heat, cold, and wind tolerant; water efficient; low maintenance; non-invasive, and pest and disease resistant
- Continue to maintain high-quality park space across the City
- Develop new park spaces to increase the total acreage of park space per resident
- Increase access to park spaces and connectivity between park spaces
- Decrease food deserts and increase community gardens across the City
- Improve air quality and reduce urban heat island impacts across the City



OPPORTUNITIES	CHALLENGES
<ul style="list-style-type: none">• Environment is one of the factors residents identify as a reason to move to and stay in Las Vegas• Many gaps in the open space framework currently exist,allowing for key connectivity strategies• Thanks to the leadership of SNWA, LVVWD, and the City, Las Vegas is a leader in water conservation and has proven to have the political will to reduce consumptive water use (primarily via reductions in outdoor water use)• There are good examples of adding tree canopy and reinforcing water-tolerant and native plant species in recent projects in Las Vegas• Residents identify quality of parks as a key asset - continue to build on this perception	<ul style="list-style-type: none">• SNPLMA-funded parks and open space improvements will eventually decrease as BLM sales conclude at the periphery of the valley - alternative funding strategy should be developed• Endangered local species• There is currently not enough open space per capita and open spaces are not always located in best areas• Federal encumbrances on SNPLMA land limit the city’s ability to regulate and manage open space• The urban heat island effect, coupled with increased frequency and intensity of heat waves and extreme heat may impact residents and visitors to Las Vegas, especially vulnerable populations

EQUITABLE	RESILIENT	HEALTHY	LIVABLE	INNOVATIVE
Improved environment conditions provides cleaner air, water and health outcomes for all, especially when prioritized for those with the most needs	Protecting, restoring and adapting places in the context of the unique natural resources in Las Vegas will allow for reduced water use and improved environmental and health outcomes	Improved environment, connectivity and recreation opportunities will allow for healthier choice options including physical, mental and safety	Las Vegas residents take pride in the unique environmental and parks aspects of the City. These elements are part of the DNA of what makes Las Vegas a great place to live	Proactively addressing environmental opportunities and challenges in the context of extreme climate change will require innovative solutions that can become global models
				

 **SEE ALSO:**
CAPRA and Parks and Open Space Plan

III.B NATURAL FEATURES

NRS 278.160.1(b)(1)

PROTECT, ENHANCE, AND RESTORE NATURAL FEATURES AND RESOURCES OF THE MOJAVE DESERT



The Mojave Desert is a unique region covering more than 50,000 square miles of Southern California, Southern Nevada, Northeastern Arizona, and Southwestern Utah. It is a rain shadow desert created by the Sierra Nevada and coastal mountain ranges of Southern California, bound by the Great Basin Desert to the north and Sonoran Desert to the south. At its eastern edge is the Las Vegas Valley, covering six hundred square miles. Surrounded by mountains, to the west are the Spring Mountains that extend north-south and include Red Rock Canyon, the La Madre Mountains, and the range’s highest peak, Mount Charleston. At an elevation of 11,916 feet, it contains alpine tundra and thick pine forests. The Mojave Desert region is home to a diverse array of animal and plant species, contains unique topography, hydrology, and geology, and has a wide range of characteristics that require careful attention for its preservation, enhancement, and restoration.

The features of the Mojave Desert interconnect with the city’s urban areas in a variety of ways as the city has sprawled outward for decades. The 2050 Master Plan emphasizes an intentional path toward infill, redevelopment and adaptive re-use of currently underutilized spaces as the City grows “up and not out.” Las Vegas is also the fastest warming city

in the U.S., causing extreme heat island effects often in the City’s core urban neighborhoods. Strategies are required to restore natural features and processes to combat negative effects of climate change in Las Vegas. This plan for enhanced natural features that blur the boundaries between natural and built environments is developed in the context of a hotter and drier future.



SEE ALSO CHAPTER 4:






- II. Conservation (Water)
- III. Public Facilities
- IV. Safety (Hazard Mitigation and Flooding)

KEY ACTIONS

- SNPLMA must continue to be supported as it has proven to be an effective tool for concentrating urban growth, while providing funding for open space.
- Utilize Tule Springs National Monument to its potential as a valuable open space asset for the City.
- Preserve and maintain open space as a balance to man-made development.
- Preserve and protect areas of important environmental/ecological consideration, and incorporate such areas into the park and recreation system.
- Use native and adaptive plants to meet environmental objectives and reduce maintenance requirements.
- Continue to partner with agencies, organizations, and businesses to enhance natural resource access and management.
- Reclaim areas of environmental/ecological deterioration using available resources from the public, quasi-public and private sectors.

OUTCOMES

- The number of threatened species identified by the Clark County MSHCP is reduced
- The number of endangered species identified by the Clark County MSHCP is reduced
- No net loss of identified habitat areas of threatened or endangered species
- No net loss of identified wetlands or desert areas
- Identified natural areas and arroyos have been restored
- Existing and new identified invasive species have been eradicated or contained to prevent population growth and expansion

EQUITABLE	RESILIENT	HEALTHY	LIVABLE	INNOVATIVE
Improved natural features that blur boundaries provides cleaner air, water and health outcomes for all, especially when prioritized for those with the most needs	Environmental protections for Mojave plant and animal species ensure continued resilience for the sensitive ecosystem.	Access and provision of open space areas allow for additional opportunities for recreation.	Protecting and enhancing the Mojave Desert helps conserve and preserve natural amenities for current and new residents.	SNPLMA continues to be an innovative tool of protecting open spaces and providing funding for parks and trails.
				

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NATURAL FEATURES INVENTORY AND ASSESSMENT

The unique natural features of climate, weather and the Mojave Desert within the City of Las Vegas provides unique opportunities for new models of adaptive reuse. In order to achieve successful outcomes, it is important to have a detailed understanding of current and future conditions in Las Vegas.

ECOSYSTEMS

Vegetation. Widely spaced, low-lying shrubs compose most of the Mojave Desert flora. There are 250 ephemeral plants, approximately 90 of which are endemic. Dominant species, some of which are protected under the Endangered Species Act, include Joshua trees, creosote, white bursage blackbrush, and Mojave yucca. The Las Vegas Bearpoppy and Las Vegas buckwheat are protected, yet only grow along the Upper Las Vegas Wash in areas that could potentially be developed.

Wildlife. The area is also home to a wide range of mammals (including bats, bobcats, cougars, coyotes, bighorn sheep, pronghorn, muledeer, jackrabbit, and kit fox), birds (including burrowing owls, hummingbirds, hawks, falcons, eagles, and a number of migratory birds), reptiles (including the threatened desert tortoise, a number of species of rattlesnakes and lizards, Gila monsters, and chuckwallas), fish (chubs and dace), amphibians (such as the Red-spotted toad), and insect and arachnid species. The Mojave Desert Tortoise, Mount Charleston Blue Butterfly, and other species in the Mojave Desert ecosystem each face long-term anthropogenic pressures which may lead to further decline. The desert tortoise in particular was listed by the Federal government as threatened in 1990, however, the yellow-billed cuckoo is listed as threatened and the Southwestern Willow Flycatcher is listed as endangered. Off-road vehicles, urban development, transportation infrastructure, low nutritional nonnative grasses and other diminished food sources, and increased fires have all lead to increased habitat fragmentation and loss for these species.

Invasive Species. As with many areas, the introduction of invasive species, such as invasive grasses like red brome and cheatgrass, can challenge native vegetation and wildlife. Along the Las Vegas Wash and Colorado River, tamarisk is resilient and chokes out other species. The quagga mussel is by far the largest threat to the Colorado River and Southern Nevada’ water supply, as well as the aquatic food chain. The bivalve rapidly reproduces, encrusts SNWA’s pipes and water intakes, and fouls water quality.



CLIMATE

Precipitation. Prevailing Pacific coastal winds traveling inland are forced upwards by mountain ranges; winds that do make it through have potential to release available precipitation, but only averages four inches of rainfall annually, most falling during winter months. The Mojave Desert also receives summer monsoonal moisture that is pushed into the region from the Gulf of California.

Climate. Temperatures vary from extremes of below freezing in the mountains in the winter to 120 degrees on the valley floor during the summer. They can consistently exceed one hundred degrees for summer highs with mild average winter temperatures averaging sixty degrees.

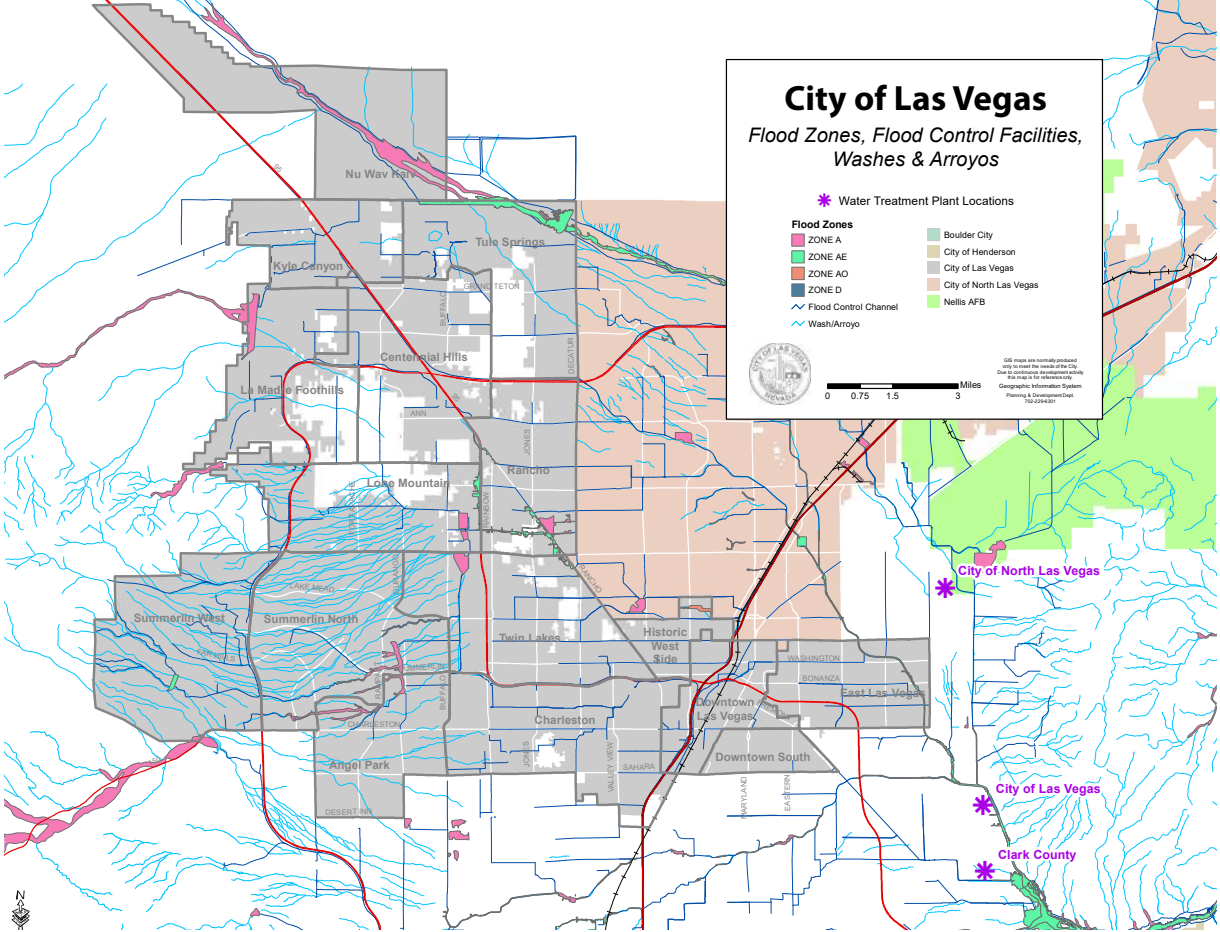
Potential Impact of Climate Change. The Mojave Desert is threatened by changing climatic conditions, which contribute to extreme heat, wildfire, drought, extreme storm events, and associated plant and animal species loss. The capacity of the ecosystem to be resilient and ecologically stable without rapidly losing native vegetation and wildlife during periods of change can be altered with increased rates or intensity of disturbance. Increased heat and less water from drought will mean less resources available to plant and animal communities. Due to the emergence of invasive grasses that can destroy native desert shrubs and form new fuel, desert wildfires are more likely to occur. After fires occur, nonnative species out-compete the slower-to-establish native vegetation.



NATURAL SYSTEMS

Topography. The western part of the city are within or abut the foothills of the Spring Mountains and Red Rock Canyon; to the north are the alluvial fans of Gass Peak that towers over the City at the southern end of the Sheep Range. The valley floor gradually slopes from west to east and from north to south, with an elevation of approximately 2,000 feet near Downtown Las Vegas. While slope stability risks are relatively low and confined, foothill areas and areas containing steep slopes constrain development, runoff and erosion are difficult to control or prevent, and if hillsides are improperly developed, they can become unsightly. To protect them, the City adopted a Hillside Development Overlay; Development standards are designated within the overlay to promote orderly development, protect sensitive lands and habitat, mitigate erosion, and avoid visual blight.

Hydrology. The City is within the Las Vegas Valley Hydrographic Basin. Rain and snow in the Spring Mountains and Sheep Range infiltrate bedrock through faults and fractures and rests naturally to recharge the aquifer system in the Las Vegas Valley. Prior to wells tapping the aquifer’s groundwater, a number of springs, including those at the Las Vegas Springs Preserve, Lorenzi Park, and Tule Springs, were present. Rainstorms wash sediment from surrounding mountains into enormous alluvial fans and into arroyos that are tributaries of the Las Vegas Wash. The Las Vegas Wash and its tributaries, historically an ephemeral stream, carry water and precipitation to the Colorado River and is the sole outlet of the valley. As the City grew over time, flows into the wash became permanent as both highly treated wastewater and discharged stormwater are released; these have created ponds and wetlands that also serve to further clean the stream flow before entering Lake Mead. Much of the watershed within the City has been developed through funded projects and facilities of the Clark County Regional Flood Control District. Concrete open flow channels, detention basins, and culverts have helped control stormwater during flooding events, but many of the tributaries are no longer in a natural state that could serve as a quality recreational area, green infrastructure, or open space. There have been notable exceptions, including preserved arroyos within Summerlin North, Summerlin West, and Kyle Canyon.

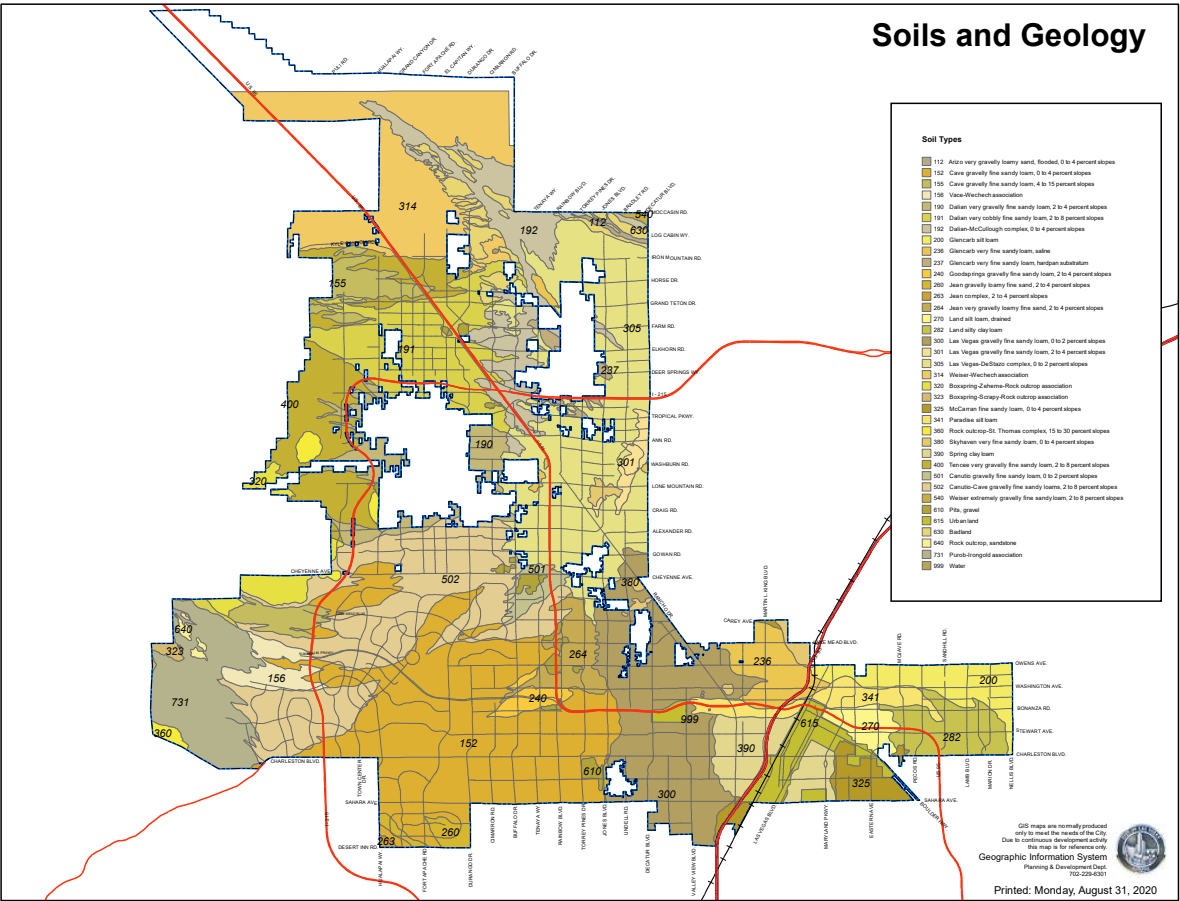


MINERALS, SOILS, AND GEOLOGY

The mineral composition of the surrounding mountains and hills is a mixture of limestone, shale, sandstone, and dolomite with gypsum and quartzite deposits. Although mining is a major state industry, NDEP’s Bureau of Mining Regulation and Reclamation indicates no other active mining operations immediately near the city aside the Lone Mountain Gravel Pit, which contains limestone and dolomite, sand and gravel used for concrete aggregate, construction, and landscaping. Sitting on BLM land between the Lone Mountain and La Madre Foothills planning areas, this mining operation provides a necessary resource for the growth of Las Vegas.

Knowledge of soil conditions is a key component of building construction and maintenance. According to soil data from the Natural Resources Conservation Service, the floor of the Las Vegas Valley is comprised of sand and gravels with silt, loam, and clay from thousands of years of erosion from the mountains surrounding the valley. Deposits of sedimentary caliche (a natural cement of calcium carbonate that binds clay, silt, gravel, and sand) are common throughout the valley. Local soils contain expansive clays that can exert force on a building or other structure to cause damage, including foundation cracks. Similarly, soil fissuring occurring around areas with seismic/tectonic faulting and horizontal aquifer movement can cause building damage. Soil and aquifer conditions in some parts of the valley are conducive to subsidence; historically, groundwater extracted from the valley’s aquifers has resulted in local subsidence.

Some soils can also contribute to contamination of groundwater and permit leaching of potentially hazardous chemicals. As a result, brownfields around Downtown Las Vegas are present and have required remediation. Finally, due to less than ideal soil conditions and composition, farming and agricultural activity have been somewhat limited, although it has been possible to grow crops, orchards, and feed grasses.



NATURAL FEATURES COLLABORATION

Protecting, enhancing, and restoring the Mojave Desert environment within and around the Las Vegas Valley requires substantial collaboration between Federal, State, and local agencies, especially for public lands that have helped contain urban growth:

- Most of these lands are managed by the *Bureau of Land Management* (BLM) and also include designated wilderness areas, national conservation areas (NCA), and Areas of Critical Environmental Concern (ACEC). BLM’s Southern Nevada District’s Las Vegas Field Office oversee the resources and protection of public lands, conduct Resource Management Plans, and implement the Southern Nevada Public Lands Management Act (SNPLMA). BLM oversees and permits ranching and grazing, outdoor recreation, off-highway vehicle usage, and hunting.
- *Fish and Wildlife Services*. This includes the Desert National Wildlife Refuge, located directly north of the City, covering Corn Creek, Gass Peak and the Sheep Mountains this de-facto wilderness area helps protect a wide range of animal species, including desert bighorn sheep.
- *National Forest Service* and wilderness areas, including the Spring Mountain National Recreation Area to the west of the city. As a part of Humboldt-Toiyabe National Forest, the Spring Mountains contain Mount Charleston, Kyle Canyon, and Lee Canyon, and offer outdoor recreation opportunities.
- *National Park Service*. Tule Springs National Monument, spanning 15 miles of the Upper Las Vegas Wash between Corn Creek and the 215 Northern Beltway in North Las Vegas and through city territory, is among the newest national parks; also nearby is Lake Mead National Recreation Area – the first and largest recreation area, as well as one of the busiest, averaging more than 8 million visitors annually.
- *Tribal territory*. The Las Vegas Paiute Tribe occupied the reservation around the Nu Wav Kaiv planning area, in addition to a colony located north of Downtown Las Vegas. This reservation contains a major golf resort and smoke shop.

- *Military installations*. Nellis Air Force Base and Creech Air Force Base are among the largest fighter and training bases in the country. North of the City is the Nevada Test and Training Range, a 4,700 square mile complex for which the air force conducts combat training with live ordnance, aircraft testing, and exercises. Creech Air Force Base, near Indian Springs, which has undergone significant investment and expansion conducts military drone testing and global drone operations. Developing the northern part of the Las Vegas Valley has met some resistance, in part to ensure the protection of the military installations and their respective operations.
- Because the Federal government owns so much of Nevada’s public lands, the State of Nevada does not have significantly large land holdings around the City of Las Vegas. Several state departments do have jurisdiction over areas that help protect the desert environment.
 - *Nevada Department of Conservation and Natural Resources (DCNR)* oversees the protection of Nevada’s environment, including environmental cleanups and remediation. It includes protection of water resources, state lands and state parks, forestry, historic preservation, conservation districts, and off-highway vehicles programs.
 - *Nevada Department of Wildlife* (NDOW) ensures conservation and oversight of wildlife diversity and conservation, and permits hunting, fishing, and boating activities
 - *Nevada Department of Agriculture* (NDA) operates a noxious weed program and regulates the use of fertilizers and pesticides.
 - *Clark County’s Department of Environment and Sustainability* is the region’s air pollution control agency, implements the Desert Conservation Program, and administers the Multiple Species Habitat Conservation Plan.

The City’s Planning Department and Office of Sustainability play a lead role in land use planning and environmental protection. NRS 278.250 prescribes that zoning regulations be in accordance with this master plan and be designed to preserve air and water quality, conserve and protect open space and natural resources, provide for recreational needs. By setting land use controls and zoning through

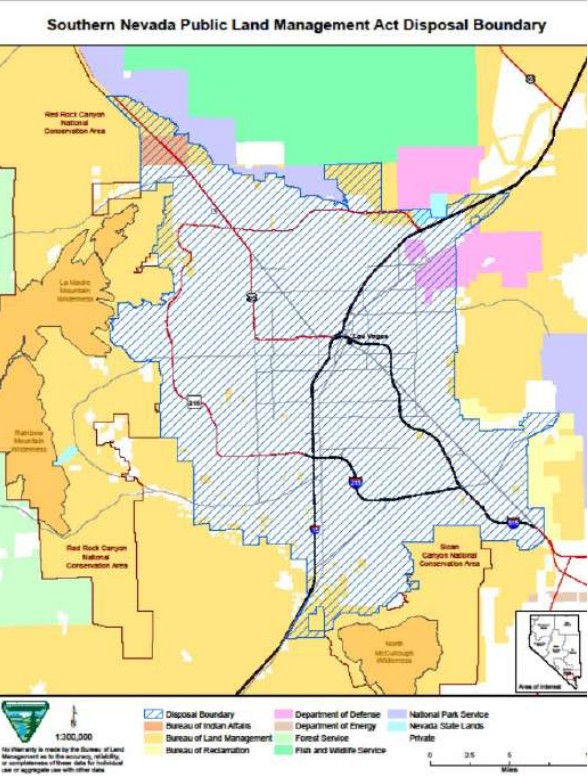
the LVMC Title 19 Unified Development Code, the City can further protect, enhance, and restore the Mojave Desert

THE SOUTHERN NEVADA PUBLIC LANDS MANAGEMENT ACT (SNPLMA) IS A VALUABLE TOOL FOR FUNDING PARKS AND OPEN SPACE

Adopted in 1998, SNPLMA allows the BLM to sell public land within a specific boundary around Las Vegas. The revenue from auctioned land sales, totaling \$4.1 billion as of 2019, is split between the State Education Fund (5%), the Southern Nevada Water Authority (10%), and an account for specified purposes, including:

- Development of parks, trails, natural areas, and other recreational and public purposes in cooperation with local governments or regional entities
- Capital Improvements at Federal facilities or on Federal lands
- Conservation Initiatives on Federal lands
- Multi-Species Habitat Conservation Plan (MSHCP)
- Environmentally Sensitive Land Acquisitions
- Hazardous Fuels Reduction and Wildfire Prevention
- Eastern Nevada Landscape Restoration Projects
- Lake Tahoe Restoration Projects

Other provisions in SNPLMA direct certain land sale and acquisition procedures and provide for the sale of land for affordable housing and public purposes, such as municipal facilities and schools. Of the 68,000 acres within the SNPLMA boundary, 38,700 acres have been sold at auction, leased, exchanged, or reserved for public purposes, with approximately 29,000 acres remaining for disposal; much of the City’s BLM parcels are within the northwestern areas of the city. The City has previously been able to leverage SNPLMA for a wide range of parks and trails projects and renovations. Several recent proposals have been made to increase SNPLMA’s territory as a part of a public lands bill package, but Congressional approval is required to amend SNPLMA and expand the boundary.



TULE SPRINGS NATIONAL MONUMENT IS A VALUABLE OPEN SPACE ASSET TO THE CITY

Established in 2014 by an act of Congress, the Tule Springs Fossil Beds National Monument spans 22,650 acres of the Upper Las Vegas Wash and protects key paleontological and archaeological resources. Fossils of mammoths, camels, and American lions, dating between 10,000 to 250,000 years in age have been found within the wash’s arroyos, as have traces of the “Nuwu,” the ancestors of the Southern Paiute. Encroachment had been taking place over the last thirty years; some areas of the Wash have been developed or contain housing developments immediately against the Monument’s boundaries. The Monument is now protected and contains approximately 5,350 acres within the Nu Wav Kaiv planning area. Because Tule Springs is so new, it lacks basic boundary protections, has no major facilities or visitor’s center, and still faces threats of encroachment, as well as vandalism, misuse, and degradation. The City, in partnership with the NPS, must work together to ensure the Monument is secured, buffered, and protected.

HABITAT AND ENDANGERED SPECIES

The Clark County Desert Conservation Program (DCP) manages Endangered Species Act compliance on behalf of Clark County (the agency lead and implementing entity), NDOT, and local municipalities through implementation of the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and an associated incidental take permit due to concerns over habitat loss and mortality of the desert tortoise. Formed thirty years ago and approved for nearly 80 reptile, amphibian, mammal, insect, crustacean, and plant species in 2001 covering 145,000 disturbed acres, the MSHCP allows landowners to develop land without the need for an Endangered Species Act review or environmental study. In addition to funding and implementing conservation measures for the desert tortoise, the plan made funding available to research other species of concern.

The MSHCP directs measures to proactively conserve species and ecosystems. Doing so reduces the likelihood that future species will become endangered and protects the region against further requirements if current species become threatened or endangered in the future.

The MSHCP:

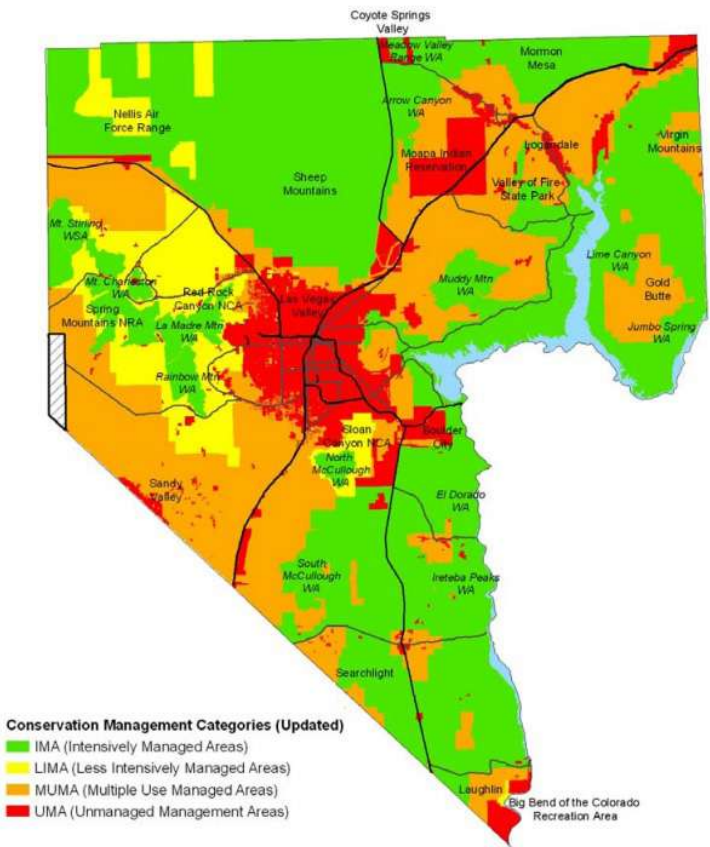
- Helps increase populations of covered species.

- Works to balance conservation with recovery of habitats and ecosystems for native plants and wildlife.
- Protects a broad range of activities under the permit, including development.
- Reduces economic burdens on individual landowners and all levels of government.
- Reduces uncoordinated decision making, which can result in incremental habitat loss.

The MSHCP reserves Federal public land areas defined by their kinds and levels of management as it affects the covered species:

- Intensively Managed Areas (IMAs): Includes the DNWR and areas north of the city
- Less Intensively Managed Areas (LIMAs): Areas immediately surrounding the Spring Mountains and its foothills
- Multiple Use Managed Areas (MUMAs): Areas in the northwestern and western planning areas of the City
- Unmanaged Areas (UMAs): Much of the Las Vegas Valley

IMA and LIMA areas are part of the “reserve system.” No net unmitigated loss or fragmentation of habitat is intended within these areas, or within MUMA areas where a substantial proportion of the species habitat exists. Prior to development on private property anywhere within the City or County, the developer must obtain a grading or building permit and pay a one-time \$550 per acre disturbance fee for each acre (up to 130,000 acres). These fees are collected by the City and other permittees, and collectively administered by the County to implement the MSHCP.



IMPLEMENTATION STRATEGIES

- SNPLMA must continue be supported as it has proven to be an effective tool for concentrating urban growth while providing funding for open space
 - Develop a long-term, citywide SNPLMA parcel and property nomination plan, consistent with SNPLMA's Strategic Plan, for future land development purchases, parks, trails and recreation projects, and reserving locations for additional public facilities
 - Carefully collaborate with other jurisdictions and Nevada's Congressional delegation on changes or amendments to SNPLMA or other public lands bills to ensure the intent and purpose of this plan is not undermined
- Utilize Tule Springs National Monument to its potential as a valuable open space asset for the City
 - Leverage SNPLMA or City funding to partner with the NPS to construct a Visitors Center and other facilities and amenities at the Tule Springs National Monument
 - Provide or require connections and accessibility along boundaries with the Tule Springs National Monument and Red Rock Canyon NCA
- Preserve and maintain open space as a balance to man-made development.
 - Protect adjacent lands from urban encroachment through zoning buffers along boundaries with the Tule Springs National Monument and Red Rock Canyon NCA
- Preserve and protect areas of important environmental/ ecological consideration, and incorporate such areas into the park and recreation system.
 - Within the Summerlin West, Lone Mountain, La Madre Foothills, Tule Springs, Centennial Hills, Kyle Canyon, and Nu Wav Kaiv planning areas (especially those within identified LIMA and MUMA areas pursuant to the MSHCP), assess each area to identify plant and wildlife species and habitat areas (including those that are threatened or endangered), connections between habitats, and invasive species
- Adopt additional resource conservation and preservation measures as may be needed or required
- Fund targeted habitat restoration efforts
- Preserve slopes and hillsides, as defined under the Hillside Overlay ordinance, especially for identified sensitive slopes and ridgelines
- Adopt a policy to further enable the use of conservation easements and the transfer of development rights program pursuant to NRS 111 for open space and sensitive lands that warrant protection
- Use native and adaptive plants to meet environmental objectives and reduce maintenance requirements.
 - Enact additional policies to identify, contain, and eradicate invasive species, noxious weeds, diseased or infected trees, insects, rodents, pursuant to the Las Vegas City Charter, LVMC Title 9, and Title 13.48, utilizing best-management practices
 - Coordinate with Clark County on additional measures or policies that implement the MSHCP
 - Update design standards for municipal buildings and the LVMC Title 19 Unified Development Code to ensure native and adaptive plants are utilized and non-invasive species are prohibited
- Continue to partner with agencies, organizations, and businesses to enhance natural resource access and management.
 - Work with Clark County Regional Flood Control District to selectively restore and enhance the Las Vegas Wash and its tributaries
 - Work with Clark County Regional Flood Control District to identify, conserve, and protect other arroyos and washes as recreational amenities, while ensuring the ability to protect the public and property from flash flooding
 - Develop public education campaigns and coordinate with volunteer organizations to inform residents about endangered, threatened, and invasive species



III.C URBAN FORESTRY

NRS 278.160.1(b)(1)

PRIORITIZE INCREASING TREE CANOPY ACROSS ALL AREAS OF THE CITY FOR MULTIPLE PUBLIC HEALTH AND ENVIRONMENTAL BENEFITS



As one of the fastest warming cities in the country, extreme heat is one of three current and long-term hazard vulnerabilities to the city that must be mitigated. Among the top methods to reduce the urban heat island effect, mitigate extreme heat, and reduce overall temperatures is through the City’s urban forest and other forms of green infrastructure. Trees help cool cities by providing shade, reducing direct sunlight, lowering the need to cool buildings and associated energy costs, decreasing the amount of heat absorbed by asphalt areas like streets or parking lots, and creating overall cooler environment through which people can walk and bike. Urban forests, the collection of urban trees throughout the urban environment, are a capital asset, much like a public building. Trees and urban forests also have the benefit of providing the City with a wide range of physiologic, economic, sociologic, and aesthetic benefits, including:

- Provide shade that help cool and mitigate the urban heat island
- Increase property values and property marketability.
- Help reduce air pollution and sequester greenhouse gas emissions by providing health benefits and environmental justice to urban neighborhoods
- Provide wildlife habitat
- Help treat stormwater runoff

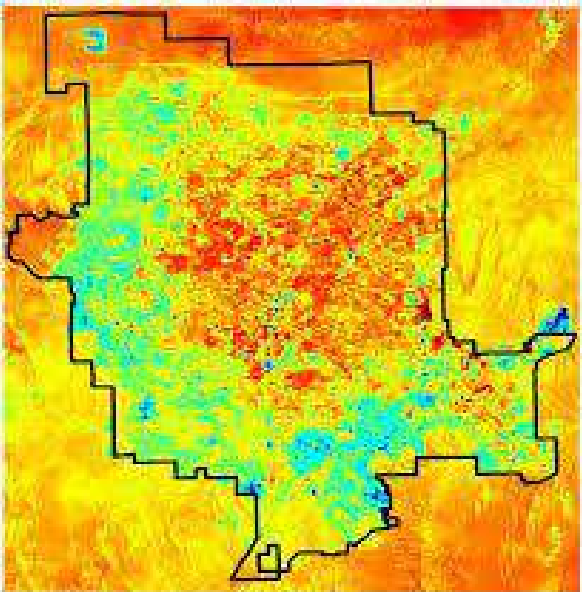
KEY ACTIONS

- In keeping with Tree City USA and urban forestry commitments, plant 60,000 high quality trees composed of a diverse list of native and adaptive species on public and private property that are tolerant of heat, cold, and wind; water efficient; low maintenance; non-invasive, and pest and disease resistant.
- Within each area of the city, especially those with vulnerable populations, and when temperatures exceed 100 degrees, prepare an adequate extreme heat response.
- Institute resilient best management urban design practices to ensure high quality landscape architecture for public facilities and private developments.
- Increase outreach and education on trees and landscaping

URBAN HEAT ISLAND CONTEXT






Average annual high and low temperatures have continued to increase over time. Between 2006 and 2019, average temperatures increased nearly three to four degrees in Las Vegas. July monthly daytime average temperatures have exceeded 105° in ten of the past 14 years. The Las Vegas office of the National Weather Service determines extreme heat events; heat advisories are issued when daytimes highs are expected to be 100° or higher for at least two days and nighttime temperatures do not drop below 75°. An excessive heat warning is similarly issued when temperatures reach above 105°. Over the next 30 years, barring no major reversal of global climatic temperature trends, it is anticipated that the average annual number of days when temperatures exceed 100° will increase to 70 days. Extreme heat is further exacerbated by the urban heat island effect, the phenomenon of urban areas being hotter than rural areas, which can be mitigated by reducing asphalt and concrete surfaces while weaving in green infrastructure and shade. The urban heat island effect can cause the following:

- Health issues, especially for heat-susceptible populations like children, the elderly, homeless individuals, and low-income and minority populations.
- Delays, business risks, and health concerns for employees that work outside, especially at the City’s resorts, construction and development labor.
- Increased energy and water demand for air conditioning and cooling, as well as increased building operational costs, employee needs, and goods requiring refrigeration.
- Poorer air quality through the greater incidences of inversion layers



OUTCOMES

- Plant and maintain 60,000 diverse and high quality native and adaptive trees on public and private property by 2050.
- The City’s tree canopy increases to 20% by 2035 and 25% by 2050 utilizing native and adaptive drought tolerant tree species.
- 85% of the City’s population lives within a 1/3 mile from green infrastructure features that provide localized cooling through park space, tree canopy cover, or vegetative surfaces.

EQUITABLE	RESILIENT	HEALTHY	LIVABLE	INNOVATIVE
Tree canopy coverage must be distributed throughout the City to ensure all residents, as well as members of vulnerable populations, have access to the benefits of trees	Utilizing water-efficient, drought tolerant adaptive tree and plant species help the City further mitigate and adapt against the hazard of extreme heat.	Trees help reduce the urban heat island effect and overall temperatures, improve the quality of stormwater and air, and provide visual aesthetics that improve personal wellness.	Parks, trees, and green infrastructure enhance the sense of place in the community and provide areas that are enjoyable to walk, bike, and recreate by all.	Designing structures and architectural features that provide shade as well as green space
				

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