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# TABLE OF CONTENTS

## 1. EXECUTIVE SUMMARY
- Plan Overview 1

## 2. GUIDING PRINCIPLES & CONTEXT
- Planning Area History 10
- Planning Process & Public Outreach 12
- Existing Community Conditions 21

## 3. PLAN ELEMENTS
- 1. Land Use 28
- 2. Transportation 39
- 3. Environment 49
- 4. Economic Growth 57
- 5. Growth Areas 59
- 6. Open Space 65
- 7. Water Resources 73
- 8. Energy 81
- 9. Cost of Development 83

## 4. APPENDICES
- Appendix A - Glossary of Terms 85
- Appendix B - Flood Proofing Brochure 91
- Appendix C - Unpaved Roads Brochure 95
- Appendix D - Kiwanis Park Master Plan 98
- Appendix E - Scenic Corridor Guidelines 100
- Appendix F - Land Use Designations 101
- Appendix G - Zoning Districts 104
- Appendix H - Street Classifications 105

# LIST OF FIGURES

- Planning Area 1d
- Existing Land Use Plan (1999) 29
- Land Ownership 31
- Future Land Use Plan 37
- Existing Transportation 40
- Future Transportation Plan 47
- Environmental Features 55
- Potential Growth Areas 62
- Open Space 67
- Groundwater Depth 79
1. EXECUTIVE SUMMARY

PLAN OVERVIEW
The 2019 Daisy Mountain/ New River Area Plan (Plan) focuses on realistic and forward-thinking strategies, goals, and policies for the Daisy Mountain Planning Area (Planning Area). Much has changed since the 1999 completion of the previous plan, then called the New River Area Plan. Some major changes include the development of Anthem, widening of Carefree Highway from two to four lanes, and the surge of growth northward with the opening of the Loop 303 Highway.

As growth challenges the rural culture and setting, this Plan reflects the local population's desire to maintain their existing lifestyle while accommodating thoughtful improvements to their community.

County Area Plans are intended for use in conjunction with the Maricopa County (County) Vision 2030 Comprehensive Plan (Vision 2030). Vision 2030 explains the policies and expectations for development of unincorporated areas. Area Plans are smaller-scale plans that take into account the unique conditions and needs of each area. Area Plans include: Goals, policies, a future land use plan, and a transportation plan to support the Comprehensive Plan required by Arizona Revised Statute (ARS 11-804). Both the Comprehensive Plan and Area Plans are updated periodically to support the County’s Mission, Vision, and Strategic Priorities.

How the Plan is Used
The Daisy Mountain/ New River Area Plan provides a specific guide for citizens, Maricopa County Planning and Development staff, Planning and Zoning Commission, and the Board of Supervisors concerning growth and development in the Planning Area. It is to serve as a reference for the County Board of Supervisors to guide decisions, and as a reference for private development decision making.

Input from area residents provided the basis for the Guiding Principles. Beyond reflecting public input, these principles also support Vision 2030 and the County’s broader mission, vision, and goals. The Guiding Principles influence the strategies and policies developed for each of the Plan Elements.
Purpose of an Area Plan

A County Area Plan serves as a decision-making guide, providing assistance to County staff, residents, and prospective developers. It also provides guidance for the County Planning and Zoning Commission, and the County Board of Supervisors, where growth and/or development are concerned.

An Area Plan includes Future Land Use plans which show areas for future growth and development, taking into account where, what kind, and how various uses will most benefit the local community. Once adopted, an Area Plan is consulted as a decision-making guide for the general public, developers, the Planning and Zoning Commission, the Board of Supervisors, other County Departments, and other government agencies. Together with Vision 2030, an Area Plan provides a baseline against which zoning change requests and changes to Development Master Plan are reviewed.

The Vision 2030 Comprehensive Plan and Area Plans are different from Maricopa County’s Zoning Ordinance, which provides regulation for how land can be developed. Area Plans are also distinct from Development Master Plans, which require a separate public participation and comment process.

THE AREA PLAN SERVES FOUR IMPORTANT PURPOSES:

1. It fulfills requirements of Arizona State law.
2. It assists in the implementation of Maricopa County’s Mission, Vision, and Strategic Priorities.
3. It helps Maricopa County leadership to make informed decisions that:
   - Protect public health, public safety, and the environment
   - Ensure responsible growth
   - Promote quality communities
   - Allocate limited financial resources
   - Link complex and interrelated issues
   - Build community consensus
   - Reflect the residents’ desires for their community
4. It identifies existing conditions, current issues, and strategies.
Plan Limitations

While the importance and necessity of careful long-term planning is clear, Comprehensive and Area Plans have certain limitations. Some key points include:

- Vision 2030 and the supporting Area Plans are sometimes confused with zoning ordinances. The Vision 2030 and area plans are policy and decision-making guidelines for how to address community needs, whereas Maricopa County’s zoning ordinance is regulation for how land can be developed.

- Vision 2030 and Area Plans must be periodically reviewed to determine if revision is required due to changes in state laws, environmental conditions, the economy, elected leadership, and/or community priorities.

- Vision 2030 and Area Plans are the controlling documents for unincorporated areas within Maricopa County. The authority of these documents does not extend to incorporated cities and towns. Conversely, the General Plans of cities and towns may show planned uses extending into Maricopa County Planning Areas. However, a municipal General Plan does not become a controlling document for these areas beyond city or town boundaries unless annexation occurs.

- The Daisy Mountain/ New River Area Plan only relates to unincorporated areas in the defined Planning Area, but may recommend connecting trails, roads, and open spaces to adjacent communities and public lands.

For more detailed information about the limitations and authority of Comprehensive and Area Plans, please
Public & Stakeholder Outreach

The planning process depended heavily on input from area residents and stakeholder groups. Two on-line surveys and comments provided both in-person during public meetings and on-line, and meetings held with stakeholder groups all served as methods for gathering information. The result is a clear list of concerns and preferences as identified by residents — the people who best know and understand the Planning Area. For more detailed information about the public outreach process and specific findings, refer to “Planning Process & Public Outreach” on page 12.

**TOP THREE LIKES**

1. Natural desert open space
2. Small-town feel, quiet neighborhoods
3. Large lots (Large space between residents)

**TOP THREE DISLIKES**

1. Population growth - too fast
2. Limited water availability
3. Unpaved roads - dust and access issues

**COMMUNITY OUTREACH & INVOLVEMENT**

- 4/18/18: Public Information Meeting
- 10/12/18: Workshop I announcement and invitation postcard mailed to residents within the Plan Area limits (approximately 9,000 addresses)
- 10/21/18: Online Survey Link Published
- 11/7/18, 6:00 – 8:00 PM: Workshop I, attended by approximately 200 people (Desert Mountain School: 35359 N. 7th Ave)
- 11/15/18: Foothills Focus published article describing the workshop and the Plan Update
- 12/3/18: Workshop II invitation distributed/published
- Workshop Reminder: 12/7/18
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- 1/9/19: Workshop II Survey closed (185 respondents)
- 6/11/19: Invitation to Workshop III sent out
- 6/25/19: Workshop III Presentation of draft plan
- 8/26/19: Invitation to Workshop IV sent out
- 9/9/19: Workshop IV Presentation and review of public comment on Draft Plan
- In addition to the public meetings, surveys, and mailings staff also held individual meetings with several stakeholder groups and government agencies to solicit feedback on the plan.
Top Issues Identified by the Community

Public input primarily informed the issues identified and addressed in the Plan. The following is an overview of issues per Plan Element. Further discussion of each of the issues, strategies for addressing the issues, along with goals and policies can be found in the following Plan Element sections.

1. Land Use
   - Lot Splits
   - City Annexations

2. Transportation
   - New River Road/7th Street - Scenic Corridor
   - Bike Lanes and Equestrian Trails

3. Environment
   - Preserving Pristine Desert
   - Dust from Unpaved Roads

4. Economic Growth
   - Local Employment

5. Growth Areas
   - Unwanted Growth
   - Prefer Locally Serving Commercial and Retail

6. Open Space
   - Kiwanis Park
   - Daisy Mountain Trails

7. Water Resources
   - Domestic Water Supply

8. Energy
   - Energy Independence as an Ideal Rural Lifestyle
   - Transit and Carpool

9. Cost of Development
   - Development Should Pay for Itself

GUIDING PRINCIPLES

- Preserve and Respect the Rural Lifestyle
- Support Low-density, Large-Lot Residential Land Use Patterns
- Balance Responsible Land Use Decisions with Private Property Rights
- Preserve and Enhance Natural Features and Open Space
- Protect Scenic Corridors
- DAISY MOUNTAIN AREA PLAN
**Significant Changes in the 2019 Area Plan**

**Future Land Use**
- Reduction in Planning Area from 166 square miles to 121 square miles.
- Designation change from Town Center to Single-Family Rural.
- Definition of New River Road and 7th Street as a Scenic Corridor.
- Identification of slopes greater than 15%, which must conform to the County Hillside Development Ordinance.
EXECUTIVE SUMMARY

Future Transportation
- New River/ 7th Street is identified as a scenic corridor
- Recommend bike facilities along major roadways within Desert Hills and along New River Road
Open Space

- Maricopa Trail bisects the Area Plan to connect Lake Pleasant Regional Park to Cave Creek Regional Park and Spur Cross Conservation Area.
- Proposed Daisy Mountain Trails on State Trust Land connects the communities of Anthem, Upper New River, New River, and Desert Hills regions as well as the Maricopa Trail and Tonto National Forest. Trail locations are approximate and subject to change.
- Slopes over 15% are identified to follow Hillside Development Ordinance.

Legend

- Planning Area Boundary
- Open Space
  - Tonto National Forest
  - Regional Parks
  - Local Parks/Preserves
  - BLM
  - Maricopa Trail
  - Proposed Daisy Mountain Trail
  - Black Canyon Trail
- Natural Features
  - River/Wash
  - FEMA 100-Year Floodway
  - FEMA 100-Year Floodplain
  - Slope over 15%
2. GUIDING PRINCIPLES & CONTEXT

The issues, goals, and policies detailed in this Plan are specific to the Planning Area and support the goals of the Vision 2030 Comprehensive Plan. Resident input, received through public meetings, surveys, and meetings with interest groups provided the basis for articulating the Area Plan Guiding Principles.

**Principle 1: Preserve and Respect the Rural Lifestyle**
Future land use decisions should preserve and enhance the existing rural lifestyle.

**Principle 2: Support Low-density, Rural Residential Land Use Patterns**
Land use decisions should promote rural development that preserves natural features.

**Principle 3: Balance Responsible Land Use Decisions with Private Property Rights**
Future growth should respect private property rights while applying sound planning principles.

**Principle 4: Preserve and Enhance Natural Features and Open Space**
Preserve natural features and promote open space connectivity for trails, wildlife, and natural desert ecosystems.

**Principle 5: Protect Scenic Corridors**
Support key roadways as scenic corridors by utilizing a sensitive design approach.
HISTORY
Throughout history, several communities among the rolling hills and mountain peaks of the Plan Area have come and gone. As far back as 600-800 AD, the area became home to a small Hohokam settlement, which was ultimately abandoned around 1450 AD. Years later, Tonto Apache and Yavapai groups rekindled these settlements. In the mid-1800s, cavalry, ranchers, and homesteaders, many of whom were claiming land under the Homestead Act of 1864, eventually pushed out the Native Americans.

A stagecoach route with a designated stop in New River was established in the 1870s, and a few cattle and sheep ranchers brought their livestock to the area for grazing. By the 1880s, many had moved on from the area. Struggles with drought, fire, floods, and conflicts with the Native Americans compelled many to search for other settlement areas. By the time the second wave of homesteaders arrived, during the 1920s-1930s, only remnants of the former New River Stage Station building remained.

This second wave of settlers came to seek opportunities, under government programs established after World War I and II, to obtain land through hard work and residency. Programs offered “free land” for residents who met specific improvement requirements and resided in the area for a minimum of five years. Because of these programs, a new rural community was able to emerge.

Many sites around the area show evidence of the ancient Hohokam. (Picture from “New River Indian Ruins” by Hohokam Hiking)

Seasonal blooms of wildflowers around Daisy Mountain illustrate why people are drawn to the area.

GUIDING PRINCIPLES & CONTEXT
This last wave of settlers established homes that were built from native stone, and got their water supplies from hand-dug wells. The homesteaders worked together to create a school, chapel, and shops, leading to the community that still exists today. In the late 1930s and early 1940s, electricity and additional paved roads spurred the development of businesses that catered to travelers along the Black Canyon Highway. Historic buildings, such as the sheep-shearing New River Station, found new life as a gas station, general store, and restaurant. Today, the homesteading roots of the New River and Desert Hills area are still evident in the character of the rural houses and ranches that dot the landscape.

The community of Anthem is a more recent addition to the area that began development in 1998 as a master planned community. The 5,661 acres of property along the Black Canyon Highway (I-17) is comprised of residential, commercial, schools, parks, and other facilities offering residents some of the more urban amenities set in the rural quiet of the desert south of Daisy Mountain.

Daisy Mountain and Gavilan Peak are landmarks of the community. Daisy Mountain is comprised of the Arizona State Trust Lands, while Gavilan Peak is privately owned. Together they represent a shared point of pride for the residents of New River, Desert Hills, and Anthem.

Many homesteaders built their dwellings by hand from local native stones.

Sources:
"Daisy Mountain Area: A Historical Overview" by Marcy Miller
"History of the New River Area" by Lois Essary Jacka
"Images of America: New River" by Marcy Miller
PLANNING PROCESS & PUBLIC OUTREACH

The Maricopa County Planning and Development Department (MCP&DD) began the community outreach process for the Daisy Mountain/ New River Area Plan 2019 Update with a public information meeting, followed by a series of stakeholder meetings to gain a baseline perspective and understanding of the issues, concerns, ideas, and vision for the Planning Area. Following individual stakeholder meetings, two additional community workshops were held, and two separate on-line surveys were conducted to gain further understanding of the issues facing the community. The information that the MCP&DD collected at the workshops and through written comments and survey responses has directly informed the issues identified in this Plan. The following is a summary of the community input that was received.

Public Information Meeting: April 18, 2018

Prior to project initiation, the County held a public information meeting to introduce the Area Plan Update, describe the scope of the Update, and answer common questions regarding zoning, Area Plan subdivisions, and lot splits.

COMMUNITY OUTREACH & INVOLVEMENT

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- 9/9/19: Workshop IV Presentation and review of public comment on plan

Above: Excerpts from Public Information Meeting presentation April 2018
Public Workshop I

The Community Workshop began with registration at the door. Attendees were asked to sign in and provide contact information for notification for future meetings. They were provided with a questions form, comment form, and LIVE poll survey questions. They also received a project resource card. The sign-in sheets were used to update the project mailing list.

Following a welcome message from Chairman Bill Gates, the MCP&DD staff gave a formal presentation. Attendees were then invited to participate in a LIVE poll via text or by answering the poll questions on the back of the comment cards. Attendees were encouraged to participate in a live question/answer session by writing questions on question cards. Staff from the MCP&DD provided responses to questions.

Presentation

A formal presentation was provided for attendees of the public information meeting. The presentation covered the following topics:

- Welcome and LIVE poll set-up
- Vision 2030 Comprehensive Plan
- What is an Area Plan?
- How is the Area Plan used?
- The difference between Area Plans and zoning ordinances
- Planning Area
- Area Plan update process
- Workshops/public meeting schedule
- Top issues and concerns
- LIVE poll
- Next meeting information
- Contact information
Public Workshop I (Continued)

LIVE poll
A text poll (LIVE poll) was presented during the workshop. Attendees were asked to text responses or complete the poll questions on the back of the comment forms. The following questions were asked:

1. What makes New River, Desert Hills, and Anthem unique? (Includes the Upper New River Area)
2. What are the challenges for your community?
3. What opportunities exist to build a stronger community?

SIGNIFICANT FINDINGS
Responses to the LIVE poll illuminated overarching preferences, concerns, and ideas that were shared by residents in the Planning Area. Below is a list of the most common responses to each of the three LIVE poll questions.

1. What makes New River, Desert Hills and Anthem unique?
   - Rural character and lifestyle
   - Low density
   - Natural desert beauty
   - Horse property
   - Dark skies

2. What are the challenges for your community?
   - Water rights and availability
   - Annexation
   - Increasing population and development density
   - Crime and emergency response times
   - Dust

3. What opportunities exist to build a stronger community?
   - Maintain rural character
   - Eliminate city annexation
   - Increase resident engagement with community association(s)/more community meetings
   - Limit growth/development
   - Incorporate New River/Desert Hills
   - Do not incorporate New River/Desert Hills

Comment Cards
In addition to the LIVE poll, attendees were encouraged to complete a comment card. The collected comments were summarized and classified as follows:

- Maintain rural character
- Specific access roads
- Community developments
- Water Availability
- General meeting comments
- Combining the communities
Survey I: Available On-line 10/21/18 - 12/9/18

The first survey included questions on a variety of topics. The summary provided below features a selection of questions that represent the full range of topics.

What are the top three things you like MOST about living in New River/Desert Hills area?
1. Natural desert open space
2. Small-town feel, quiet neighborhoods
3. Large lots (ample space between you and your neighbor)

What are the top three things you like LEAST about living in New River/Desert Hills area?
1. Population growth - too fast
2. Limited water availability
3. Unpaved roads/dust and access issues

In your opinion, what is the most critical issue facing the New River/Desert Hills area today?
- WATER (47%)
- GROWTH AND DEVELOPMENT (43%)
- ROADS AND TRANSPORTATION (7%)
- PRESERVATION (3%)

How has the quality of life in New River/Desert Hills changed over the past five years?
- Declined (57%)
- No Change (35%)
- Improved (8%)

How do you rate these factors in the quality of life you enjoy in the New River/Desert Hills area?
- Preservation of Natural Desert Open Space & Wash Corridors is Extremely Important (87%)
- Maintaining a Rural, Equestrian-friendly Lifestyle with Minimum Lot Sizes of One Acre is Extremely Important (87%)
- Short Response Time for Police and Fire Service is Important or Extremely Important to Most (76%)
- Access to Parks & Trails is Important or Extremely Important to Most (74%)
- Encouraging Large-lot Suburban-type Residential Development is Important or Extremely Important to Most (59%)
- Provision of water and sewer infrastructure is Important to Some, and Not Important to Others (48%)
- Paved Roads are Important to Some, and Not Important to Others (52%)
- Close Proximity to retail stores, restaurants and other Services is Not Important or Least Important to Most (68%)
- Amenities for Families, Such as Developed Parks and Playgrounds are Not Important or Least Important to Most (73%)

Significant Findings
- Preserving natural desert and open space is a core value among respondents
- Respondents feel that the population within the Planning Area is growing too fast
- Amenities for families such as parks and playgrounds are not important to most respondents
- The majority of respondents do not want additional development within the Planning Area
Public Workshop II: December 12, 2018

The Community Workshop was an open-house format with individual stations where members of the community could learn more about specific Plan Elements of the Area Plan, provide input, and engage with County Staff and the Planning Team. A link to an on-line survey was provided on the County website.

Sign-in and General Information

Approximately 50 people attended the workshop. The sign-in and general information station captured the location of their residences.
Public Workshop II: Continued

Land Use & Future Growth

Residents were asked to provide their preference regarding retail character, commercial types, residential home layout patterns, and the type of development that is appropriate on State Trust Lands.

Q & A RESULTS

- Residents desire informal and low-density development patterns and are not interested in master planned communities
- Preference for development types along the I-17 and Carefree Highway, ranking from most preferred to least preferred:
  - Restaurants
  - Retail/Services
  - Office
  - Other

Summary of Community Issues

1. Developments occurring without additional water resources
2. Lot splits
3. City annexation of land leading to development that current residents do not want
4. Private development of State Land
Public Workshop II: Continued

Transportation
Residents indicated their preferences on a number of transportation-related issues and were encouraged to provide additional comments regarding roadways within their community.

Summary of Community Issues
1. New River Road should be a Scenic Corridor
2. Perception that Scenic Corridor design guidelines are not enforced nor respected by development
3. Unpaved roads are the primary source of dust
4. Bike lanes, detached trails and wide shoulders are desired by residents

Q & A RESULTS
- 70% of respondents consider New River Road to be a Scenic Corridor
- The top three Scenic Corridor guidelines most important to respondents are:
  - Preserve existing vegetation and re-vegetate with native plants where necessary
  - Low impact development techniques in site design
  - Discourage off-site advertising signs (billboards)
- Bike lanes are the most desired form of shared use paths/trails
- Most common desired locations for bike lanes:
  - New River Road
  - Circle Mountain Road
  - 7th Avenue
  - I-17 Frontage Road
Public Workshop II: Continued

Recreation & Open Space

Open Space is a critical aspect of the rural lifestyle within the Planning Area. Residents offered their preferences on type of recreation, type of trails, and identified if any additional recreation amenities are needed.

Resident responses to Recreation & Open Space questions at Workshop II

**Q & A RESULTS**

- Most favored forms of recreation:
  - Hiking
  - Horseback riding
  - Mountain biking

- Most needed recreation amenities:
  - Equestrian trails
  - Paved and signed trails
  - Bike trails

Summary of Community Issues

1. Pristine State Land is being developed
2. Preservation of wildlife and vegetation is not taking place with new development
3. Formal trails cannot be established on State Land
Public Workshop II: Continued

Environment and Water
Residents identified water availability as one of the top issues. MCP&DD staff provided educational materials pertaining to this topic and identified whether residents were implementing any water conservation measures.

Q & A RESULTS

- Many residents are already employing some or several water conservation measures
- Most common conservation methods likely to be used by respondents:
  - Low water-use fixtures
  - Above-ground tank
  - Below-ground tank
  - Gray water systems
- Top reasons respondents may not implement measures
  - Cost
  - Maintenance
  - Time consuming
  - Other

Summary of Community Issues

1. Preserving the Pristine Desert
2. Current water supply does not meet demand
3. Flooding occurs across roadways and properties
4. Preserving the culture of the Daisy Mountain Area
EXISTING COMMUNITY CONDITIONS

The Planning Area varies significantly from the mountainous northern area to the expansive desert plain in the south. For simplification, this Plan establishes four regions (Character Areas) within the greater Planning Area: Desert Hills, New River, Upper New River, and Anthem. The descriptions that follow are general. For more detailed information about existing conditions, please refer to the Inventory and Analysis sections of each Plan Element.

Legend:

A  UPPER NEW RIVER
B  NEW RIVER
C  ANTHEM
D  DESERT HILLS
A. Upper New River

The Upper New River region is characterized by large open natural landscapes framed by rugged and rolling mountain formations on all sides. The New River Mountains stand to the north and east, Wild Burro Mesa, Doe Peak, Sweet Peak to the west, and Gavilan Peak to the south. A few private buildings, most unoccupied, carry the lore of Arizona ranching history. Only a small number of homes are scattered across the desert landscape, dotting the hillsides between large tracts of craggy mountainsides and rugged canyons.

Characteristics:

- Upland Sonoran Desert with steep mountain slopes and desert riparian areas
- I-17 remains a Scenic Corridor and bisects the Area into east and west portions
- Steep sloping mountains take up the vast majority of land, resulting in little development and an opportunity to set aside areas for ranching or open space
- A handful of dispersed ranches and mines connected to I-17 via private roads
- Single-family homes are clustered on the west side of the I-17 and along Old Stage Coach Road
- New River Preserve is a 20-acre, rare willow and cottonwood forest owned and managed by Desert Foothills Land Trust
B. New River

Intermittent clusters of rural development amidst majestic Sonoran Desert scenes with impressive mountain ranges to the north and east, characterize the landscape. While a higher concentration of residences exist here than in the Upper New River area, the sense of a mountainous rural community is maintained. The desert foothills climate in the Area is cooler than the desert floor of Phoenix, with regular overnight frosts occurring during the winter months.

Characteristics:
- Lush Upland Sonoran Desert vegetation
- Home sites are fragmented by steep slopes and washes, resulting in an eclectic building pattern
- Large 1+ acre lots are dispersed, respecting the natural topography
- New River Road is the major thoroughfare connecting the area
C. Anthem

Anthem is governed both by the Development Master Plan (DMP) that was approved by Maricopa County in the mid-1990s, and by specific Covenants, Conditions, and Restrictions (CC&Rs) that are overseen by the local community council. While the DMP establishes general community arrangement, the CC&Rs govern issues such as specific community design, use restrictions via supplemental declarations, and maintenance and operation of the community's private facilities. Since the approved DMP and CC&Rs administrate most activities in Anthem, this Area Plan has limited applicability to its residents. However, the community council works with organizations in Upper New River, New River, and Desert Hills regions on issues of common interest and benefit that advance this Plan's goals, policies, and implementation.

Daisy Mountain is a prominent feature in the skyline of Anthem.

Characteristics:
- Master planned community with enhanced desert landscaping
- Contains the highest population density of the four study areas
- Major washes and trails weave through the community in bands of natural, open space
- Major features and retail are clustered along I-17
- Variety of residential properties ranging from apartments to large lot residences

Green lawns in public spaces contrast with desert plantings within Anthem neighborhoods.
D. Desert Hills

The Desert Hills region is an open desert highland that lies south of the New River region and Anthem areas, bordering Carefree and Phoenix. Framed by mountains, the flat open valley is influenced by the mile-long grid of streets and curved roads as housing abuts the mountain foothills. The area hosts a number of homes on one-plus acre lots, many of which also contain barns and pastures for horses, cattle and other common ranch animals. Equestrians utilizing the shoulder of unpaved roads or natural washes are a common sight in the Desert Hills area. Although the lots are large relative to suburban developments, the residents have created small ranchettes that provide the feeling of neighborhoods throughout Desert Hills.

Characteristics:
- Desert valley bounded by mountains
- Private land has been developed in formal grids with varying lot sizes
- Residents have created small ranchettes that reinforce their rural environment
- Majority of land is residential, with some commercial and rural retail usage along Carefree Highway and I-17

Homes are set back from the road and are often screened by mature vegetation.

The Desert Scrub vegetation typology of creosote flats and tree-lined washes still exist in undisturbed areas of Desert Hills.
3. PLAN ELEMENTS

Arizona has long recognized the need for careful and deliberate planning and has laws directing how Maricopa County must prepare, adopt and amend long-range plans. The law requires plans to include eight topics or plan elements: Land Use, Transportation, Environment, Growth Areas, Open Space, Water Resources, Energy and Cost of Development. Economic Growth is included in this Plan for consistency with Maricopa County’s Vision 2030 Comprehensive Plan. The Plan Elements support the Vision 2030 Comprehensive Plan and specifically identify future land use and transportation needs.

Each Plan Element includes:

- Overview of the Plan Element
- Inventory and Analysis
- Issues and Strategies
- Goals and Policies

Definitions

**Issues:** Areas of concern or of special importance identified by the residents of the Planning Area.

**Strategies:** Methods to address the issues.

**Goals:** The intended vision and future outcome for the Planning Area.

**Policies:** Actionable steps that can be taken to reinforce the strategies, address the issues, and achieve the goals for the Planning Area.

**Plan Elements**

The following pages contain a detailed discussion of each Plan Element.
1. LAND USE

Overview

Since 1997, Maricopa County has completed several new Area Plans for unincorporated areas that are expected to see increased growth. For each Area Plan, the County coordinates with residents and stakeholders within the respective Planning Area to develop strategies for growth and address local concerns. The Maricopa County Vision 2030 Comprehensive Plan (Vision 2030) details the overall County land use issues, and addresses inter-jurisdiction coordination regarding transportation, interconnected open space, and consistency in land use categories.

The Daisy Mountain/ New River Area Plan focuses on a land-use pattern that protects the rural character of the area while providing guidance for new development. To this end, the Land Use Plan Element illustrates the Existing Land Use and the Future Land Use for the Planning Area. It is important to note that this Plan generalizes the desired land uses and does not rezone properties. The most notable change in the land use from the 1999 Area Plan is the reduction of the Planning Area from 166.36 square miles to 121.39 square miles. This reduction in unincorporated county area is due to annexation west of Black Canyon Highway by the City of Phoenix and to the east by the Town of Cave Creek. Additionally, the Area has undergone a significant increase in population from 11,000 to 38,897, with the development of the Anthem community and continued development of large-lot single-family homes.

Significant Plan Changes

The following is a summary of significant plan changes from the 1999 Plan to the 2019 Plan. These changes, along with Plan issues, are discussed in greater detail within this section.

The changes to the Plan include:

- Reduction in Planning Area by 44.97 square miles.
- Previous Town Center designation amended to Single Family Rural*.
- Definition of New River Road and 7th Street as a Scenic Corridor.
- Identification of slopes greater than 15%, which must conform to the County Hillside Development Ordinance.

*See “Land Use Designation” on page 33.
Existing Land Use Plan (1999)
### Land Ownership

**Legend**
- **Blue**: Planning Area Boundary
- **Pink**: BLM
- **Green**: County Parks
- **Orange**: Private
- **Red**: State Trust Land
- **Gray**: US Forest Service
- **Teal**: Local Parks/Preserves
Land Use Inventory & Analysis

Overwhelming feedback from residents indicates the desire to maintain the rural character of the area with a focus on low-density residential, hillside preservation, and locally-serving retail opportunities. This Inventory and Analysis is intended to give a broad overview of the existing land ownership and land use while identifying significant changes in the Plan based on recent public input and infrastructure availability.

The Inventory and Analysis addresses the following:

- Land Ownership and Existing Use
- Anthem Development Master Plan
- Existing Commercial and Retail
- Hillside Development Ordinance
- Land Use Designations

Land Ownership and Existing Use

The public land owners within the Planning Area include Maricopa County, the Federal Government, and State of Arizona. Refer to “Land Ownership” on page 30.

MARICOPA COUNTY

Maricopa County owns and maintains the majority of the road network, public service facilities and county recreational facilities. Lake Pleasant Regional Park is managed by the County Parks Department and is part of the County’s regional park system. It is connected by the Maricopa Trail that bisects the Planning Area to Cave Creek Regional Park and Spur Cross Conservation Area. Additionally, County Parks manages a Bureau of Land Management (BLM) lease associated with Kiwanis Park, a community park located in the Planning Area that offers equestrian facilities and sport fields.

BUREAU OF LAND MANAGEMENT (FEDERAL GOVERNMENT)

The BLM owns and manages 22.31 square miles (14,278 acres) in the northwest portion of the Planning Area, west of I-17. The land is primarily in its natural, undeveloped desert state and is used recreationally by the public.

ARIZONA STATE TRUST LAND

Under the Arizona and New Mexico Enabling Act of 1910 and Arizona State Constitution, the mission and charge of the Arizona State Land Department (ASLD) is to manage State Trust land for maximum benefit and economic return to the Trust’s beneficiaries. The primary beneficiaries are Arizona’s K-12 public schools, but also include other educational, charitable, and penal institutions. Arizona’s State Trust Land is the prime asset in a perpetual, multi-generational trust, and ASLD must seek to preserve the land’s current and future value in perpetuity. In this way, State Trust Land is more akin to private land than public land, distinguishing it from BLM land, U.S. Forest Service land, and local parks and preserves.

ASLD manages 60 square miles (35,833.6 acres) of State Trust Land throughout the Planning Area. ASLD is by far the largest single land owner in the Planning Area. Much of the State Trust Land west of I-17 that was in the 1999 Planning Area has been annexed by the City of Phoenix and is currently undergoing significant development. The State Trust Land east of the I-17 is difficult to develop due to the lack of water and sewer infrastructure and steep topography. These physical restrictions reflect ASLD’s current management of the land through grazing leases. Two land use designations within the 1999 Area Plan have been re-evaluated in the current Plan: Town Center property within the Desert Hills community and the Single-Family Large-Lot property situated immediately north of Anthem. Refer to “Existing Land Use Plan (1999)” on page 29.
The Town Center is an undeveloped square mile of land (640 acres) located west of 7th Street, between Cloud Road and Joy Ranch Road. Currently, the community uses the undeveloped property primarily for recreation through ASLD’s recreational permit program. Paraphrasing the 1999 Area Plan, the Town Center recommended that:

- A project should accommodate multi-use development to provide facilities for the area. These facilities may include a community center, a library, or other community-related services.
- The core of the community service center could be arranged to create a sense of enclosure and defined space. Buildings should be limited to two stories with a maximum height of 28 feet to maintain the rural character.
- Recreational facilities and open space should be used as buffers at the edges of the site to accommodate the more intense uses at the center.
- Structures at the outer edge of the community services center bordering the open space buffer, should be comparable in height and mass with the surrounding community. Any residential development shall be appropriate to the nature of the existing community.

The 1999 Plan recommended use, though visionary, lacks access to infrastructure to support the intensity of such development and may not be realized for the foreseeable future. Additionally, recent community input that favors low-density residential use is in conflict with the prospect of more intense development that would be entailed for the Town Center. The current use of the property provides the community with passive recreation, meeting much of the community’s desires for the property. The Town Center land use is no longer relevant and has been amended to Single-Family Rural, consistent with the surrounding residential properties.

The ASLD property with Single-Family Large-Lot (two homes/acre) land use is along the western slopes of Daisy Mountain, extending west to the I-17 east frontage road. See “Future Land Use Plan” on page 37. The intent of designating this land as such, as shown in both the 1999 Area Plan and the Future Land Use Plan, is to provide a transition zone between the low-density residential area and the higher density development of Anthem. This transitional land use is also intended to preserve the lower Daisy Mountain viewshed by promoting a higher density of clustered homes on flatter slopes.

**Anthem Development Master Plan**

The growth and development of Anthem has been significant. The Development Master Plan is a planned community with a variety of home types and densities ranging from apartments to large-lot, single-family homes, reflective of other suburban developments within the County. Additionally, the community has an extensive system of paved paths, private parks, and recreational facilities for use by Anthem Residents. Public facilities include the North Valley Regional Library, which is part of the Maricopa County Library District and Boulder Creek High School; both serve the greater Planning Area.

**Aggregate Resources**

As a requirement of ARS Sec 11-804, as well as a best practice in land use planning, the Area Plan acknowledges that access to aggregate resources is required for growth. Limited mining operations currently exist within the Planning area; one along the I-17 east frontage road; and an aggregate stockpile immediately east of the I-17/Table Mesa Road interchange.

While aggregate mining is an important and necessary part of the economy, the noise, light, dust and traffic from mines can impact the quality of life of nearby residents. To protect aggregate mining and safeguard residents’ enjoyment of their property, Maricopa County supports open space buffers, land use transitions and other techniques that appropriately separate existing and future aggregate mining operations from residential land uses.
Maricopa County also encourages developers and property owners to research the location of existing and future mining operations prior to purchasing or choosing to develop a property. Common sources of aggregate resources are mountains and washes or river beds. For more information on potential locations of aggregate resources, refer to the Arizona Geological Survey Document Repository for the current Geologic Map Database for Aggregate Resource Assessment for the Phoenix Metropolitan Area and surrounding regions.

**Existing Commercial and Retail**

Two primary commercial and retail areas along Carefree Highway and Black Canyon Freeway are within the Planning Area. The retail and commerce district located on the west side of Anthem and within the city limits of Phoenix, though outside of the Planning Area, provides residents with a wide variety of services including a large grocery store, specialty store outlet, and a commerce park.

**I-17 EAST FRONTAGE ROAD**

Existing businesses along the I-17 frontage road provide locally-focused services including a medical clinic, veterinary hospital, marijuana dispensary, restaurants, a convenience store, self-storage, and a gravel mining business. The frontage road retail and commercial area is within the I-17 Scenic Corridor. Refer to Future Land Use Plan on page 37.

**CAREFREE HIGHWAY**

Existing businesses along Carefree Highway include convenience stores, restaurants, automotive services, and other local services. The corridor was designated as a Scenic Corridor in the 1999 Area Plan and was further defined in the Carefree Highway Scenic Corridor Study (August 2008).

**Hillside Development Ordinance**

Slopes greater than 15% must conform to the County Hillside Development Ordinance. The updated plan recognizes the limitations that steep slopes have on responsible development, while protecting scenic hillsides. The plan does not change the underlying zoning, but identifies areas within the Planning Area that are constrained by physical characteristics and generally should not exceed one home per five acres. See “Future Land Use Plan” on page 37 for areas of 15% slope and greater.

**Land Use Designation**

The Daisy Mountain/ New River Area Plan has been updated to reflect the current Land Use Designations as identified in the Vision 2030 Plan. Though the Vision 2030 Plan has an all-inclusive list of Land Use categories, this Area Plan primarily utilizes four land use designations. The land use designations and their development intent is as follows:

**SINGLE FAMILY – RURAL (One home or less per acre)**

This land use designation promotes low-density single family homes at or below one home per acre where the natural environment may determine a home’s location and access to avoid disruption of natural washes and steeper slopes. The designation also recognizes that public water and sewer services may not be available, and access to law enforcement, fire protection, schools, and parks may be limited.

**SINGLE FAMILY – LARGE LOT (Greater than one home and no more than two homes per acre)**

The Single Family – Large Lot land use designation, much like the Single Family Rural land use, responding to the preservation of natural washes and steep slopes is intended to promote preservation of hillside and natural features by allowing clustering of homes. However, this is allowed only if lower density areas or preservation of hillsides or washes offset a maximum of two homes per acre. A community water and sewer system may be required for developments with more than one home per acre.
RURAL RETAIL
The Rural Retail land use designation reflects the retail needs associated with local, rural communities. These businesses may include feed stores, public riding and boarding stables, kennels, plant nurseries, and large animal veterinarian. This use may be within the retail areas along Carefree Highway and Black Canyon Freeway frontage roads, or within rural lots with a Special Use Permit (see Appendix of Terms).

NEIGHBORHOOD RETAIL
This designation is associated with the retail areas along Carefree Highway and Black Canyon Freeway frontage roads. This land use designation is intended for neighborhood-focused retail that may include grocery stores, services, and specialty stores. Though the land-use designation may allow larger stores and national retail chains, input from residents demonstrates a preference for promoting locally-owned restaurants and specialty stores.

Land Use Issues & Strategies
Protecting the rural lifestyle and character of the Planning Area is important to the area community. During public outreach meetings, residents expressed particular concern regarding lot splits, development of new subdivisions, and annexation by adjoining cities which are viewed as a threat to their rural lifestyle and limited water supplies. Managing growth in an efficient manner is a joint responsibility between Maricopa County and the property owners in the Planning Area. The goal of the Land Use Element of the Area Plan is to reflect the input of the residents and document the goals and policies that will guide future land use decisions in the Planning Area.

The top issues identified by residents include:

ISSUE 1: Lot Splits
ISSUE 2: City Annexations
ISSUE 3: Development of State Land

Land Use Issue 1 - Lot Splits and Subdivisions
State law allows property owners to divide their property into a maximum of five lots. Per state statute, parcels created through these minor land divisions or “lot splits” are not required to have an assured water supply or provide improved road access. Land that is divided into six or more lots is subject to State and County subdivision regulations which require the provision of water, roads and drainage improvements. The creation of a subdivision gives the County the ability to encourage new development to conform to the new Area Plan, and be more site-sensitive by preserving washes, hillsides and clustering of homes. Residents view subdivisions as an increase in density, however, a subdivision may or may not increase density. The majority of the lots in the Planning Area have been created through minor land divisions. Many Planning Area residents are willing to forgo the developed infrastructure of maintained roads, water and waste systems, and other public utilities to maintain a rural lifestyle. The community, however, is becoming increasingly concerned with illegal land divisions, often called “wildcat subdivisions”, when property owners attempt to divide their land six or more times without following subdivision regulations.

STRATEGIES
• Provide information to property owners, residents, real estate representatives and title companies about the requirements for legal division of land, including what constitutes a violation and possible civil remedies.
• Educate property owners on voluntary options to rezone their property from Rural-43 (one-acre zoning) to Rural 190 (five-acre zoning) in order to decrease density in the Planning Area.
• Establish clear public expectations and raise public awareness about the difference between living in cities and towns versus living in unincorporated areas.

**Land Use Issue 2 - City Annexations**

As previously noted, the 1999 Planning Area has been reduced from 166 square miles (106,470 acres) to 121 square miles (77,638 acres) due to annexation by the City of Phoenix and the Town of Cave Creek. Most of the annexed land is State Trust Land, and the remainder is private land. The recent annexations have primarily captured State Land and limited private land that is suitable for development and areas where utility and road infrastructure can be extended. Per Arizona Law, annexations are a matter between the annexing jurisdiction and private property owners exclusively. For more information, refer to Title 9 of Arizona Revised Statute.

**STRATEGIES**

• Cooperation between City and County to establish appropriate buffers and compatible low-density land use along city/county borders.

**Land Use Issue 3 - Development of State Land**

The Arizona State Land Department (ASLD) is the state agency that manages State Trust Lands (Trust) to enhance value and optimize economic returns for the Trust beneficiaries. The ASLD must manage the lands with sound stewardship, conservation, and business management principles that support socioeconomic goals for current and future generations. Any development of large tracts of State Land within the County requires a public process. This process establishes the overall layout of a development, residential densities, major road networks, and potential future open space.

**STRATEGIES**

• Promote the preservation of the scenic qualities of the area including the New River Mountains, Table Mesa, Daisy Mountain, Pyramid Peak, Gavilan Peak, Bradshaw Mountains, Apache Peak, Elephant Butte, and other near-by and distant surrounding mountains.

• Support enforcement of the County Hillside Development Ordinance for slopes greater than 15%.

• Where appropriate, encourage clustering development of parcels to preserve hillsides and open space, transitional buffers, and natural wildlife or drainage corridors. Clustering density may be used as a tool to preserve hillsides and natural open space while keeping the gross density at the underlying rural or large-lot residential zoning.

**Land Use Goals**

**Land Use Goal 1**

Maintain low-density development patterns to promote the rural lifestyle and protect the natural beauty of the area.

**Land Use Goal 2**

Support development that is compatible with adjacent land uses and is sensitive to the natural environment.

**Land Use Goal 3**

Protect public health, safety and well-being.
Land Use Policies

Land Use Policy 1
Support the enforcement of Arizona State Statutes regarding minor land divisions and illegal subdivisions.

Land Use Policy 2
Discourage high-density development in areas without infrastructure and public services.

Land Use Policy 3
Encourage utility and communication companies to provide visually and auditorily sensitive solutions for equipment within the Planning Area.

Land Use Policy 4
Encourage the incorporation of wildfire prevention and mitigation measures in site and lot design.

Land Use Policy 5
Discourage new travel trailer and recreational vehicle parks and development.

Land Use Policy 6
Preserve washes and a natural drainage system as valuable open space for pedestrian and equestrian use.

Land Use Policy 7
Support coordinated planning efforts between local, state and federal jurisdictions and agencies.

Land Use Policy 8
Support protection of public access around public lands and existing parks.

Land Use Policy 9
Enforce the County Hillside Development Ordinance and support the preservation of steep slopes and hillsides.

Land Use Policy 10
Encourage new development within Scenic Corridors to comply with adopted Scenic Corridor Guidelines.

Land Use Policy 11
Encourage appropriate buffers and transitions between different land uses and intensities, including near aggregate mining operations and high voltage electric line and gas pipe line corridors.

Land Use Policy 12
Encourage integrated land uses connected by non-motorized trails/paths, which are easily and safely accessible to equestrians, pedestrians, and bicyclists, and separating user groups where necessary and appropriate to minimize recreational conflicts.

For more information:
1. Maricopa County Vision 2030 Comprehensive Plan
3. Anthem Development Master Plan
4. County Hillside Development Ordinance
Future Land Use Plan

Legend
- Planning Area Boundary
- Scenic Corridors
- Tonto National Forest
- Anthem DMP
- BLM
- Regional Parks
- Local Parks/Preserves
- Single Family Rural
- Single Family Large Lot
- Commercial
- Slope of 15% or Greater
- Hillside Development
- Restrictions Apply
2. TRANSPORTATION

Overview

Based on input from public meetings and surveys, residents define an effective transportation system as one that is safe, efficient and reflects the rural character of the Planning Area. In order to preserve the area’s character, New River Road/7th Street joins Carefree Highway and Black Canyon Freeway as a Scenic Corridor. Additionally, the Plan recommends the development of bike facilities and multi-use pathways for equestrian and pedestrian use, while encouraging traffic calming.

Significant Plan Changes

- New River/7th Street is identified as a scenic corridor
- Bike facilities are added to major roadways within the Desert Hills community and along New River Road to ensure the Plan is consistent with Maricopa County Department of Transportation plans and studies.

Transportation Inventory and Analysis

Three major roadways define the Planning Area: Black Canyon Freeway (I-17) to the west; Carefree Highway to the south; and New River Road/7th Street through the heart of the Planning Area (“Existing Transportation” on page 40). The Planning Area also includes roads that are part of the County roadway network and are maintained by the Maricopa County Department of Transportation (MCDOT). The following describes the existing roadway network, maintenance programs, and public transit that exist within the Planning Area.

Black Canyon Freeway (I-17) Scenic Corridor

The 1999 Area Plan established I-17 as a scenic corridor. The Natural Scenic Overlay District boundary is a half mile on either side of the edge of the ADOT/I-17 right-of-way between New River Road and the Yavapai County boundary as well as a few additional areas specifically identified for additional protection.

The Black Canyon Freeway (I-17) and its frontage roads serve the western length of the Planning Area. I-17 provides the principal inter-city connection between the Flagstaff and Phoenix metropolitan areas. The Average Daily Traffic (ADT) presently exceeds 45,850 vehicles (ADOT HPMS 2016). Due to the projected rise in traffic and the frequent occurrence of accidents between Sunset Point and Black Canyon City, the Arizona Department of Transportation (ADOT) recently completed a Flex Lane Study. As a result of the study, a third lane will be added to both northbound and southbound directions. The additional lanes will run from the Anthem interchange north to Sunset Point Rest Stop. The flex lanes will relieve heavy weekend traffic and, when an accident blocks traffic, flex lanes will become reverse lane relievers. Construction is scheduled for 2020 to 2022, and will represent a major upgrade to the busy corridor.

In addition to the primary freeway, I-17 frontage roads collect and distribute local traffic on each side of the freeway. The frontage roads are primarily two-lane, divided roadways with limited, dedicated left turn lanes providing access to commercial and residential properties. The east frontage road extends north from Anthem approximately 2.5 miles and ends at New River Road. There is no access to I-17 north of New River Road. The west frontage goes from Anthem Way and dead ends at the New River waterway.
Existing Transportation

Legend
- Planning Area Boundary
- Scenic Corridors
- Principal Arterial
- Rural Minor Arterial
- Rural Minor Collector
- Local Roads - MCDOT Maintained
- HWY 117
- Existing Bike Lanes and Path
- Existing Bike Lanes/Share the Road
Carefree Highway (Hwy 74) Scenic Corridor

Carefree Highway provides a continuous east-west route through the southern portion of the Planning Area, extending from Lake Pleasant Road to Scottsdale Road. Carefree Highway was designated as a Scenic Corridor in the 1999 Area Plan and was defined in greater detail in the 2008 Carefree Highway Scenic Corridor Study. The study outlines specific guidelines for development adjacent to the roadway that protects and promotes the scenic qualities of the area.

Carefree Highway is a four-lane divided highway with a landscaped median, dedicated left-turn lanes, and an average of 20,117 vehicle trips per day (MCDOT 2018 ADT). The highway is identified as a principal arterial, according to the MCDOT Major Streets and Routes Plan. This classification denotes the ultimate configuration for Carefree Highway as a six-lane divided roadway. The highway is projected to attract significantly higher traffic volumes in the future due to increasing through-traffic and trips east of the Planning Area. Depending on rising traffic and area development, MCDOT could undertake to expand the roadway to six lanes.

New River Road/7th Street - Scenic Corridor

Providing an internal spine roadway through the Planning Area, 7th Street transitions into New River Road as a primary linkage for the community from Carefree Highway to Black Canyon Freeway. The MCDOT Major Streets and Routes Plan identifies 7th Street and New River Road as Rural Minor Arterials, a classification that typically describes a four-lane roadway with a center-running left turn lane. However, the existing roads have only two lanes with intersections controlled by four-way stops located at East Cloud and East Joy Ranch Roads. The roadway supports an average of 6,200 vehicle trips per day. In 2018, MCDOT completed the New River Road Safety Analysis, which includes New River Road from Desert Hills Drive north to I-17. The study identified safety and maintenance issues at specific locations along the roadway, with recommended corrective measures that may be implemented in future projects.

Community members who contributed to the public process emphasized the importance of this roadway, as well as its scenic qualities. As a result, this Plan recommends the designation of New River Road/7th Street as a Scenic Corridor. See “Transportation Issues & Strategies” on page 43 and for further information about MCDOT standard street sections, see “Appendix H - Street Classifications” on page 114.

Rural Roads

The low-density residential development outside of Anthem does not require an extensive hierarchy of roadways. The rural roadways within the Planning Area include three primary roadway classifications (MCDOT Major Streets and Routes Plan):

**RURAL MINOR ARTERIAL**

This is defined as an undivided roadway with one or two lanes in each direction that may have auxiliary lanes at intersections. The roadway serves the greater community, connecting to arterial roadways and highway, and may have a striped shoulder or bike facilities. Roadways classified as Rural Minor Arterial include New River Road, Desert Hills Drive, Cloud Road, 24th Street, 16th Street, 7th Street, 7th Avenue, and 27th Avenue.

**RURAL MINOR COLLECTOR**

This is defined as an undivided roadway with one lane in each direction providing connections between local and arterial roadways. The roadway may have a striped shoulder or bike facilities. Roadways classified as Rural Minor Collector include Joy Ranch Road, Circle Mountain Road, Honda Bow Road, and 27th Avenue, north of Daisy Mountain.
RURAL LOCAL ROAD
This is defined as an undivided roadway with one lane in each direction that connects neighborhoods to the greater roadway system. Local roads may be paved or dirt roads, public or private, and may be maintained by the County or residents, depending on ownership.

For additional information on MCDOT standard street sections see “Appendix H - Street Classifications” on page 114.

MCDOT Maintained Roadways
In addition to the major roadways within the Planning Area, MCDOT maintains a number of local roads. The image below illustrates the current roadways that are maintained by MCDOT. In order to plan and budget for future roadway improvements, a Transportation Improvement Program (TIP) is developed as a five-year financial planning tool that contains transportation system improvements. These improvements may include new or upgraded roadways, intersection improvements, drainage-related projects, and transportation studies. Additionally, MCDOT has a PM-10 program that identifies County-owned dirt roads for paving. Resident-funded improvement districts to pave roads are discussed in the Environment Plan Element on page 52. In the recent TIP for fiscal years 2018-2022, many dirt roads within the Desert Hills area were identified and were subsequently paved.

In addition to road maintenance and paving projects, MCDOT also evaluates road safety. Two recent studies that address safety concerns within the Planning Area are:

- Skunk Creek Crossing Flooding Study (2018): The study determines needed improvements to resolve flooding problems along Skunk Creek Crossing, 19th Avenue, Desert Hills, Honda Bow Road, and Circle Mountain Road.
- New River Road Safety Analysis (2018): The study identified safety and maintenance issues along the primary roadway through the Planning Area.

Anthem Community
The Anthem community is a master-planned community within the Planning Area. Typical of this type of development, Anthem has a well-defined transportation system with an extensive roadway hierarchy and network, bike facilities, and pedestrian paths. Principal arterial roadways with bike facilities and community paths provide internal circulation, connections to Black Canyon Freeway, and a pedestrian connection to the Desert Hills region at Desert Hills Drive and 19th Avenue.

Bicycle Routes
Beyond Anthem’s extensive bike facilities and multi-use paths, bicycle routes are limited to Carefree Highway within the Planning Area.
In 2016, MCDOT initiated the Active Transportation Plan (ATP) to develop a comprehensive planning guide that outlines a vision for self-propelled, human powered modes of transportation. This plan creates a network of non-motorized vehicle travel within unincorporated Maricopa County. The ATP (October 2018) identified the principal roadways within the Desert Hills region and New River Road as a “Need” in MCDOT’s Bicycle Network. The next steps in the process require a comprehensive approach including community support, project design, and funding support.

**Trail and Equestrian Facilities**

Natural surface trails and equestrian facilities are an important amenity for residents. Trails, including the Maricopa Trail system are discussed in detail in section “6. Open Space” on page 68.

**Public Transit Service**

No public transit service exists in the Planning Area. The area currently does not have the population density to support a fixed-route transit service. The closest transit facility is at I-17 and Happy Valley Road, where Valley Metro provides a Park-N-Ride with express bus service to downtown Phoenix. Additionally, Connect-A-Ride, a service of the Maricopa Association of Governments (MAG), provides carpool matching assistance.

When the population density in the Plan Area supports a fixed-route service, the primary provider would most likely be Valley Metro and the most appropriate location for a Park-N-Ride would be at the Outlets at Anthem. Establishing a Park-N-Ride at the Outlets at Anthem will require coordination between the owner of the Outlets, the City of Phoenix, and Valley Metro.

**Transportation Issues & Strategies**

Three issues identified by the residents include:

- New River Road/7th Street as a Scenic Corridor
- Dust from unpaved roads
- Need for additional bike facilities and equestrian trails

**Transportation Issue 1: New River Road/7th Street - Scenic Corridor**

New River Road connecting to 7th Street is the primary roadway linking the Desert Hills region to the New River region. The two-lane road winds through the mountains and over desert washes reflecting the rural character of the Daisy Mountain Area. It then connects to north-south running 7th Street. As the road traverses the landscape, immediate views of the mountains and rock outcroppings provide a scenic setting for the community. As the primary transportation spine, this roadway has been identified by the community as one that should be designated as a Scenic Corridor. Additionally, New River Road and its linkage to 7th Street provides an opportunity for a multi-modal roadway development that includes bike facilities and a separate path to create a central multi-modal transportation spine for the community. It could also provide connections to existing and future trail systems.

To ensure that this rural road meets safety standards, the Maricopa County Department of Transportation (MCDOT) completed a New River Road Safety Analysis (September 2018) that includes New River Road from Desert Hills Drive north to I-17. The results from the safety study identified safety and maintenance issues at specific locations along the roadway, with recommended corrective measures that may be implemented in future projects.
STRATEGIES

- Create Scenic Corridor Guidelines for New River Road/7th Street.
- Implement the recommendations from the New River Road Safety Analysis to ensure a safe roadway.
- Where right-of-way permits, develop a cross section for New River Road and 7th Street that includes bike facilities. Provide well-marked trail intersection signage at roadways.
- Recognize wildlife corridors and road crossing locations. Provide warning signs and manage vegetation to maintain visibility between wildlife and vehicles.
- Provide “Share the Road” signs to indicate multiple uses of the roadway.
- Evaluate funding to add bike facilities and soft surface trails to 7th Street and New River Road.

Transportation Issue 2: Dust from Unpaved Roads and Off-Road Riding

Air quality is a primary concern throughout Maricopa County. MCDOT maintains a number of roadways within the Planning Area, but many of the roadways within the area are private and unpaved. The results from the public outreach process indicate that dust from unpaved roads is a major concern of the residents. Refer to section “3. Environment” on page 51 for discussion on unpaved roads and air quality.

Transportation Issue 3: Bike Facilities and Equestrian Trails

One of the primary recreational activities within the Planning Area is horseback riding. The rural nature of the roadways with natural surface shoulders and unpaved roads may provide an adequate surface for equestrian and pedestrian use. However, the County has received numerous complaints of speeding vehicles, which represent a safety threat for recreational use of the shoulders.
Enforcement is a tool to curb speeding, but the addition of bike facilities may also reduce speeding, as lanes indicate to drivers that they are within a multi-use corridor. Bike facilities and detached soft-surface paths ranked high in importance in the public responses. Public responses also reflect a desire to adhere to the recommendation of an Active Transportation Plan prepared by MCDOT. (See the “Future Transportation Plan” on page 47 for bike lane improvement locations.) The addition of bike facilities would conform to the County’s standard roadway cross-sections.

**STRATEGIES**

- Identify a network of roadways and multi-use trails throughout the community that link people to a larger regional multi-use system (i.e. Maricopa Trail) and locally to community facilities such as Kiwanis Park and schools.
- Develop an implementation plan in coordination with MCDOT. An opportunity to implement these multi-use strategies may arise out of the New River Road Safety Analysis recommendations that were discussed previously.
- Implement the Active Transportation Plan recommendation to add bike facilities to existing roadways.
- Evaluate funding in the Transportation Improvement Program (TIP) for safety, bike facilities, and equestrian trail improvement.

**Transportation Goals**

**Transportation Goal 1**
Protect public health and safety through the development and maintenance of a safe, aesthetically-pleasing, environmentally-sensitive and innovative transportation system.

**Transportation Goal 2**
Expand non-motorized connections throughout the Daisy Mountain Area and safely accommodate non-motorized travel along roadways, including bike facilities, equestrian trails and pedestrian walkways.

**Transportation Policies**

**Transportation Policy 1**
Encourage new development to conform to the Scenic Corridor Guidelines for New River Road/7th Street, I-17, and Carefree Highway.

**Transportation Policy 2**
Support the implementation of the Maricopa County Active Transportation Plan, including bike facilities along New River Road.

**Transportation Policy 3**
Support the implementation of the New River Road Safety Analysis.

**Transportation Policy 4**
Encourage van pools and the extension of public transit services to Anthem.
Transportation Policy 5
Preserve dark skies by minimizing lighting of roadways.

Transportation Policy 6
Improve air quality by encouraging land use decisions that reduce distance, frequency and number of automotive trips.

Transportation Policy 7
Support technologies that will safely and efficiently move people and goods through the road network, such as MCDOT’s SMARTDrive Program, Intelligent Transportation System and Adaptive Traffic Signals.

Transportation Policy 8
Encourage residents to form Roadway Paving Improvement Districts in areas where private, unpaved roads are generating a significant number of dust complaints.

Transportation Policy 9
Support compliance with the most recent edition of the Maricopa County Department of Transportation’s future roadway classifications.

Transportation Policy 10
Plan roadways to accommodate wildlife corridors and reduce animal/vehicle collisions.

Transportation Policy 11
Identify a network of trails, corridors and public-owned land that can provide non-motorized connections throughout the community.

Transportation Policy 12
Support the continued development and expansion of MCDOT’s on-line Road Information Tool to provide residents with data on road ownership and maintenance responsibilities, as well as the location of patent easements.

For more information:
1. Maricopa County 2020: Eye to the Future - Carefree Highway Scenic Corridor Study (2008)
2. Maricopa County Vision 2030 Comprehensive Plan
3. Anthem Development Master Plan
5. Transportation Improvement Plan
Future Transportation Plan

Legend
- Planning Area Boundary
- Scenic Corridors
- Principal Arterial
- Rural Minor Arterial
- Rural Minor Collector
- Local Roads - MCDOT Maintained
- I-17 Freeway
- Existing Bike Lanes and Path
- Existing Bike Lanes/Share the Road
- Future Bike Facilities
- Open Space/ Regional Parks
- Local Parks/ Preserves
3. ENVIRONMENT

Overview

Maricopa County recognizes that the quality of the natural and built environments can influence physical health, property values, and economic development. While there are many ways to define a healthy community, it is generally agreed that advanced planning is required to address the ecological and social impacts of development and the resulting impact on health. Planning includes determining the right mix of policies and investments that protect our environment, are socially just, improve public health, support economic vitality, and make the most efficient use of public dollars while enhancing the quality of life for community residents.

Environment Inventory & Analysis

Ecology

Ecology refers to the relationships of living organisms to one another and their physical surroundings. Major elements that comprise a local ecosystem include: climate, elevation, topography, hydrology, environmental noise, soils, plants, and animals. A healthy ecology requires maintaining the balanced relationships between all of these elements.

The Planning Area falls within the Arizona Upland Sonoran Desertsrub biozone. Typical of this biozone, most rainfall occurs during the summer monsoon season and in the winter months. This warm desert supports many types of cacti, including saguaro, cholla, and barrel cactus. Native trees also instill the area with more drought-tolerant species on the hillsides and xeric-riparian species near washes. Common trees and shrubs include foothills palo verde, blue palo verde, ironwood, mesquite, bursage, brittlebush, and creosote. These plants provide habitat, food, and protection for wildlife.

Some species that are of ecological concern found within the Planning Area are the mountain lion, deer, coyote, Arizona pocket mouse, and kit fox. Washes and riparian areas are some of the most ecologically diverse areas of habitat. Many species make their homes within them or use them to travel from area to area. For more information on planning for wildlife in the area see Arizona Game and Fish Department’s online mapping tool, HabiMap at www.habimap.org.

As development occurs, care should be taken to prevent habitat areas from becoming isolated or fragmented. Plant and animal species need to migrate and exchange genetic material to remain healthy. Habitat areas that become isolated pockets often decay and the richness of species is reduced. Air traffic, environmental noise, contaminants, wastewater, and groundwater depletion can also be wildlife stressors that affect overall ecological health. The soil type and quality should also be taken into consideration for future planning as some soil types can cause issues with water retention and absorption. For more detailed information, contact your local USDA Service Center at the following link: https://offices.usda.gov or your NRCS State Soil Scientist at the following link: https://www.nrcs.usda.gov.

Hydrology & Flooding

New River is one of the most prominent hydrological features in the Planning Area. It is part of the Middle Gila watershed, and like all active washes in the area, it is an ephemeral

Flooding Problems in the New River Planning Area

- Single-lot developments need positive drainage away from homes
- Emergency access is limited
- Flooded streets
- Animal waste on flooded land is conveyed downstream, causing a public health concern
- Undelineated floodplains diminish flood awareness and preparedness
- Flash floods may cause major transportation corridors to become impassible

For more detailed information, refer to the 2015 Floodplain Management Plan for Unincorporated Maricopa County.
stream, meaning that its flow is seasonal and dependent on rainfall. Agua Fria River provides the northwest boundary of the Planning Area and terminates at the Gila River. Other major washes in the area include Skunk Creek (also known as Skunk Creek Wash), Deadman Wash, Rodger Creek (also known as Rodger Wash), Desert Lake Wash, Cline Creek (also known as Cline Wash), Apache Wash, and Little Squaw Creek.

The amount of rain that falls within the Planning Area increases within close proximity to the mountains. As development increases, the amount of impermeable surface increases, resulting in a flooding risk. New developments are required to retain and manage drainage in order to avoid increased offsite flooding. However, undelineated floodplains cause preparedness and awareness difficulties. The Flood Control District of Maricopa County has conducted, and is in the process of conducting, several studies to better understand how drainage moves through the Planning Area. Floodplains and floodways such as the areas of Skunk Creek around Anthem are being evaluated by Flood Control District and Federal Emergency Management Agency (FEMA). After the studies are completed, impacted property owners will be notified of the results.

**Air Quality**

Air quality is a primary environmental concern throughout Maricopa County. The vast majority of air quality concerns of the residents relate to dust caused by the use of several unpaved roads throughout the Planning Area. Dust issues are exacerbated when vehicles speed through neighborhoods. Many unpaved roads within the Planning Area are private, and therefore, a large portion of the responsibility to control vehicle speed and implement road improvements falls to the area residents.

Recreational vehicles present another cause of nuisance dust. Perhaps due to the close proximity of open lands to residential areas within and beyond the Planning Area boundaries, all-terrain vehicle (ATV) and off-highway vehicle (OHV) operators often utilize the southern part of the Planning Area to ride, stirring up dust and further aggravating air quality concerns. Whether they are residents or day-users, riders might not be aware of or respect ATV/OHV regulations, nor realize the immediate impacts to the surrounding communities. As a result, ATVs, OHVs, and speeding vehicles will continue to threaten the air quality within the Planning Area.

**Wastewater Treatment (Septic Systems)**

As is typical of rural areas, many homes have on-site septic systems. Installation and maintenance of an on-site septic system is critical for protecting groundwater and public health. Most of the Planning Area residential properties outside of Anthem utilize conventional and alternative septic systems for their wastewater treatment. Septic systems outside of Anthem are regulated by the Maricopa County Environmental Services Department (MCESD) and require permitting for installation. It is important to the health of residents that these systems are installed correctly and maintained regularly.

**Wildfire**

When development moves into remote or isolated areas, the potential for wildfires increases. As the number of homes in mountainous and rugged locations continues to grow, so do the challenges associated with controlling wildfires at the interfaces of built and natural lands. The Planning Area represents an interface where the high elevation is cooler and receives more rainfall, increasing the density of plant material. Additionally, the area is surrounded by public lands and steep slopes that are accessed for recreation. Naturally-occurring wildfires that might normally reduce fuel buildup are restricted in populated areas, further increasing both the potential risk and severity of fires. This raises concerns for area residents.

**Cultural Context**

The Planning Area has a rich history that is remembered through archaeological sites, historical buildings and sites, and large wild areas of natural desert. The history of the Planning Area and its cultural context is covered in the “Existing Community Conditions” on page 21.
Environment Issues & Strategies

Environment Issue 1: Preserving the Desert Environment
Residents are concerned with future development encroaching on and pushing back access to natural desert open space. Many people moved to the Planning Area to enjoy a rural lifestyle that is surrounded by the desert and removed from suburban development. As new homes are built, many existing residents lose access to natural areas and washes.

STRATEGIES
- Discourage development of land with slopes of 15% or greater or within floodplains
- Encourage the use of local native plant species in developed landscapes
- Minimize site disturbance, preserve native vegetation, and maintain natural flow of washes
- Enforce the Maricopa County Dark Sky Ordinance and support efforts to limit excessive nighttime light
- Enforce the Maricopa County Noise Ordinance

Environment Issue 2: Dust from Unpaved Roads
Due to the close proximity of open lands to the city, ATV and OHV operators often find the Planning Area a convenient location to ride both on road and off road. Whether residents or day-users, riders may not realize the immediate impact to the residents, and may not be aware of or respect the regulations regarding OHV use. ATV and OHV use, and speeding vehicles will continue to threaten the air quality within the Daisy Mountain Area.

STRATEGIES
- Maricopa County is committed to reducing airborne pollutants and continuously monitors the roads that they maintain. MCDOT periodically evaluates unpaved roads, and if paving or another dust mitigation technique is warranted, it is added to the Transportation Improvement Plan. The County provides programs for residents on private roads to petition the County to establish an Improvement District to pave or apply some other approved dust mitigation technique and maintain roadways. Specific requirements including funding by residents in establishing an Improvement District can be found at MCDOT’s website www.mcdot.maricopa.gov.
- The CleanAirMakeMore.com website provides outreach and information about how residents and businesses can directly affect air quality. Dust control techniques recommended in Maricopa County’s 2018 “Unpaved Roads: Road Map to Understand Your Options” brochure include:
  - Reduce speed – drive slowly
  - Use gravel, sand, straw, wood chips, or other dust suppressants on private roads and driveways
  - Install windscreens or shade cloth on chain link fencing to reduce windblown dust
  - Plant trees and shrubs around property
- Maricopa County regulates off-road vehicle use through the Air Pollution Control Regulations P-28 (Off-road Vehicle Use in Unincorporated Areas of Maricopa County). This ordinance specifically limits particulate matter (PM10) for any vehicle operating on unpaved property or roadways in unincorporated areas of Maricopa County. As with any regulation, enforcement is required. With limited public resources, the residents serve as the eyes and ears for the County, reporting repeat offenders or illegal entry into open lands.

Recreational vehicles create dusty conditions on unpaved trails
Environment Issue 3: Stormwater Flooding

Throughout Maricopa County, natural watersheds and drainage areas have been altered, creating a need for engineered stormwater management methods. In the Planning Area, residents have frequently reported flooding hazards produced by storm events. New development is required to demonstrate that they will not increase off-site flooding.

STRATEGIES

- Implement Low Impact Development (LID) techniques.
- Use emergency flood protection measures to protect private property (Refer to Flood Control District’s flood proofing brochure and Reducing Your Flood Risk Resource Guide in Appendix B).
- Preserve natural drainage ways in the initial design and construction of new homes.
- Understand the physical constraints of the property and plan improvements to appropriately preserve natural features, washes, and views.

Roads are often flooded at wash crossings during major rain events.

For more information about Drainage and Flood Control:
1. Adobe Dam/Desert Hills Area Drainage Master Plan (ADMP) (May 2004)

Stormwater can be managed with thoughtful site design by respecting natural washes and retaining animal waste.
Environment Issue 4: Cultural Preservation

Rural lifestyle is the overriding cultural value of the residents of the Planning Area. Whether a new or historic construction, the values of rural ranching hold true: respect the natural environment, respect private property rights, and be good neighbors. Additionally, preserving the subtle evidence of history from ancient cultures through turn-of-the-century ranching and mining are important for retaining the area’s character.

STRATEGIES

- Respect and preserve historic and cultural sites and structures. The Arizona State Historic Preservation Office (SHPO) provides assistance to federal, state, and local governments and individuals in identifying and preserving historical sites, in accordance to the Arizona Historical Preservation Act and the National Historic Preservation Act. Additional information regarding SHPO can be found through Arizona State Parks at [www.azstateparks.com](http://www.azstateparks.com).

Environment Goals

Environment Goal 1
Encourage development practices that minimize impacts to the natural and cultural environment.

Environment Goal 2
Protect and preserve dark skies, water quality, air quality, and a quiet, rural lifestyle.

Environment Policies

Environment Policy 1
To protect water quality, ensure that new and existing development complies with all local, state and federal wastewater regulations.

Environment Policy 2
Encourage natural and cultural resource management and regulatory agencies to develop environmental educational and outreach programs.

Environment Policy 3
Support and encourage floodplain and wash preservation.

Environment Policy 4
Enforce the Maricopa County Dark Sky Ordinance and support regional efforts to limit excessive nighttime light in accordance with International Dark Skies Association standards.

Environment Policy 5
Encourage the protection of viewsheds within Scenic Corridors.

Environment Policy 6
Prevent groundwater contamination through education on pollution prevention strategies including limited use of chemicals for weed control and proper maintenance of septic systems.
Environment Policy 7
Encourage new development to utilize Low Impact Development (LID) techniques in site design to reduce flooding, control dust and improve water quality, including minimizing clearing of native vegetation and mature trees, and retention of stormwater onsite.

Environment Policy 8
Encourage residents and businesses to adopt water conservation measures such as indigenous plants, water harvesting, and exploration of the use of gray water.

Environment Policy 9
Support cultural resource and biological surveys completed by, or at the direction of, the State Historical Preservation office of the Arizona Game and Fish Department prior to development.

Environment Policy 10
Educate the community on best management practices for preventing storm water pollution and flooding.

Environment Policy 11
Encourage residents to form Roadway Paving Improvement Districts in areas where private, unpaved roads are generating a significant number of dust complaints.

Environment Policy 12
Support the implementation of the Flood Control District of Maricopa County’s Upper New River Area Drainage Master Plan.

Environment Policy 13
Support flexible zoning and site development techniques to preserve hillsides, washes, wildlife corridors, and other environmentally-sensitive lands.
Environmental Features

Legend
- Planning Area Boundary
- Tonto National Forest
- Open Space/Regional Parks
- Local Parks/Preserves
- River
- FEMA 100-Year Floodway
- FEMA 100-Year Floodplain
- Slopes over 15%
4. ECONOMIC GROWTH

Overview

Economic development opportunities should aid in generating employment and contribute to the enhancement of the quality of life for all Planning Area residents and communities. The majority of working residents travel to their place of work. Small, locally-serving services and Anthem’s larger commercial stores and community park, schools, and public services broaden the variety of opportunities for residents to work locally. Employment opportunities along the Black Canyon Freeway, south of Carefree Highway are expanding, and include high-paying professional jobs. This growth in jobs will provide residents with ever-increasing prospects within a short commute.

Economic Inventory & Analysis

Small, home-based businesses owned by local entrepreneurs have been established throughout the Planning Area, and more will likely develop. This growth is encouraged by the County and contributes to a balanced, efficient, and diversified economy that is compatible with available resources.

According to survey responses collected during the development of this Plan, the majority of residents prefer the quality of life associated with living in a rural, natural area to convenient access associated with urban living. Most residents are aware of the trade-offs associated with rural life, and have made a deliberate choice to live within the Planning Area. Notable urban amenities that residents have forfeited include close proximity to services and shorter commute times. Instead, residents prefer wide-open spaces and the large-lot ranch character of the Area. Despite these overarching preferences, survey responses indicate that there is a segment of the community that would like to see expanded convenience, retail, and service-related development at the local scale.

Compared with other rural areas within the County, there is a greater variety of employment opportunities in retail and services available within or close to the Planning Area, but there is a general lack of professional, office, and manufacturing jobs. The Planning Area is characterized mainly by local service businesses. Although there are a few professional offices, the Area businesses consist primarily of local restaurants, convenience stores and fast food establishments. The Planning Area’s proximity to Anthem’s commercial and commerce district provides additional employment opportunities in retail and services including a premium outlet mall, grocery store, home repair and improvement services, pet services, automotive repair and parts, restaurants, hotel, hair salons, fitness center, and motorcycle sales.

Black Canyon Corridor has new and expanding employment and manufacturing centers that provide high-quality jobs for residents within the Planning Area. Communities that prefer primarily residential as the major land use element are accustomed to commuting to work. Fortunately, employment within a 30 to 40-minute commute from the Planning Area includes professional offices at I-17 and Happy Valley Road, light industrial manufacturers surrounding Deer Valley Airport, and major employers located near the I-17/Loop 303 Interchange.

Residents with a commute of over 30 minutes may take advantage of the Valley Metro Bus System. An express bus Park-N-Ride, located at Happy Valley Road, provides an additional transportation alternative for residents commuting into central Phoenix.

Like many County-managed areas, the Planning Area has limited access to infrastructure and services that are typically available at the municipal level. The area’s limited access to potable water and distance to other utilities present hurdles for potential development. Considerable investment would be required to extend services.
Economic Growth Issues & Strategies

Economic Growth Issue 1: Local Preferences and Employment
The collected feedback indicates that a majority of residents associate local economic growth with a decreased quality of life. Many residents feel that economic growth increases local traffic and conflicts with a rural lifestyle.

STRATEGIES

- Ensure that new business within the Scenic Corridor Overlay Districts are encouraged to conform to the Scenic Corridor Guidelines.
- Encourage home-based businesses (such as daycare, residential or cottage industry business, senior homes or shared office space) so that residents have the option to work from home or close to home.
- Promote ride share and transit-oriented travel to employment centers.
- Promote a new Valley Metro express bus and park-n-ride at Anthem. Extending transit into the Planning Area would provide residents with travel options to major employment hubs.
- Encourage business incubator programs in Anthem to expand the local economy.

Economic Growth Goals

Economic Growth Goal 1
Promotes a diversified economy that is consistent with available resources and local character and increases quality employment opportunities, improves quality of life, and is sensitive to the natural and cultural environment.

Economic Growth Policies

Economic Growth Policy 1
Support programs that provide residents and businesses with communication, infrastructure, education, and training necessary to establish home-based occupations (such as daycare, residential or cottage industry businesses, and senior homes).

Economic Growth Policy 2
Encourage commercial and retail development to locate in areas currently zoned for such activity.

Economic Growth Policy 3
Encourage new commercial or retail development to provide infrastructure improvements of water, sewer, and transportation that are compatible with the adjacent land use character.

Economic Growth Policy 4
Support programs that provide citizens with the education and training necessary to compete in the “New Economy”.

Economic Growth Policy 5
Promote improved electronic communications that support current technology.
5. GROWTH AREAS

Overview

Arizona Revised Statutes require county long-range planning documents to identify the most likely areas for future urban growth. Specifically, the state statute requires counties to identify any areas that would be suitable for multi-modal transportation and infrastructure “improvements designed to support a planned concentration of a variety of uses, such as residential, office, retail, tourism and industrial uses.”

Maricopa County Vision 2030 identified three constraints that are expected to affect the amount and location of new urban growth in unincorporated areas:

1. Physical constraints such as steep slopes, riparian areas and floodplains.

2. Built constraints, including the lack of infrastructure and services.

3. Ownership considerations including public land managed by federal, state and local governments.

The Planning Area has physical, built and ownership constraints that will limit future urban growth. The goals and policies included in this element reflect the limited opportunity for urban growth and the community’s desire to discourage urban growth in the majority of the Planning Area outside of Anthem.

Growth Areas Inventory & Analysis

Much of the Planning Area is covered by mountainous terrain with steep slopes. The terrain is both an invaluable visual resource and a defining characteristic of the area. However, the sharp grades are not only costly to develop, but also subject to the County’s Hillside Development Ordinance. See “Future Land Use Plan” section on page 37.

Like most of unincorporated County, the Planning Area has limited access to infrastructure and services that are typically provided at the municipal level. The Area’s limited access to potable water and sewer presents hurdles for potential development. Developments requiring water and sewer infrastructure typically rely on extending needed infrastructure from adjacent development. Seldom does development leap-frog over unserviced land. The cost of extending “off-site” infrastructure, including any necessary roadway improvements, can increase the cost of development significantly.

Much of the undeveloped land in the Planning Area is part of the State Trust Land (Trust) managed by the ASLD. Although the State will sell Trust Land at fair market value, the previously noted constraints paired with the added administrative burden of purchasing land through a government agency creates a barrier that adds to both development time and cost. There are also significant portions of Upper New River that are federally owned and managed by the BLM which are unlikely to be developed in the foreseeable future.
Population growth in the Planning Area indicates a growth trend of new residents moving to the area to build individual homes. The MAG 2030 projection suggests an increase of approximately 2-9% in the overall population, the majority occurring around the Desert Hills and Anthem regions.

**Private Land**

Primary growth in the Planning Area is expected in low-density residential homes on vacant private properties. The existing road network of public and private roads allows the majority of vacant private lands to be accessed. Since individual lots do not require public infrastructure, homes will continue to be constructed with independent or shared wells or will rely on hauled water and septic systems.

Anthem experienced the greatest increase in population since the 1999 Plan. This fast-growing community is rapidly approaching full build-out with the last remaining residential parcels being developed north of the core community. Additionally, few vacant properties remain immediately east of I-17.

**State Trust Land**

The majority of land within the Planning Area is managed by the ASLD. With only a few exceptions, most of it is very difficult to develop due to mountainous terrain and lack of water and sewer infrastructure. Lands on the desert floor that have terrain suitable for development still lack infrastructure, which most likely defers any immediate plans for development. State Trust Land areas identified below have potential growth due to their proximity to the City of Phoenix and available infrastructure.

**I-17 WEST — SOUTH OF ANTHEM COMMERCE PARK**

State Trust Land west of I-17 from the southern boundary of Anthem Commerce Park to Pioneer Road is in the path of probable development. The property is within the Planning Area, but is identified in City of Phoenix’s General Plan as Single Family Residential. At Joy Ranch Road, immediately west of I-17 the Phoenix General Plan identifies a small retail area with surrounding commerce park and mixed-use development.

**North of Anthem — Arroyo Norte**

A small, urban growth area is located immediately north of Anthem near I-17, and is known as the Arroyo Norte residential development. At buildout, Arroyo Norte will include approximately 290 residential lots on approximately 150 acres, 20 of which will be set aside as open space. Like Anthem, Arroyo Norte will be served by EPCOR for both water and sewer services.

**Black Canyon Freeway Scenic Corridor - East Frontage Road**

Existing development at I-17 and New River Road generally aligns with locally-serving retail preferred by the residents. It is anticipated that small businesses will continue to develop in this area with the types of business responding to visibility requirements for I-17. This corridor is within the Black Canyon Scenic Corridor, and new businesses or improvements to existing business are encouraged to adhere to the Scenic Corridor Guidelines. Refer to Appendix E for the Black Canyon Freeway Scenic Corridor Guidelines.

**Carefree Highway Scenic Corridor**

Carefree Highway, with more than half of the properties identified as vacant, continues to see the addition of small businesses and convenience stores. All but one of the properties along the highway are 10 acres or fewer in size.
State Trust Land immediately north of Carefree Highway between the 16th Street and the 28th Street alignments is identified in the Future Land Use Plan as Neighborhood Commercial with Single Family Rural extending north to private properties. This designation continues to support the 1999 Plan land use and aligns with the Town of Cave Creek General Plan (2018). The Town extends the retail use along Carefree Highway from the 28th Street alignment to 36th Street. The Town identifies low-density residential land use (two-acre minimum lot size) north of the retail area. New businesses and improvements to existing businesses are encouraged to adhere to the Carefree Highway Scenic Corridor Study.

There is no indication in the General Plan of the Town of Cave Creek that unincorporated land will be annexed by the Town in the immediate future.

Due to the lack of infrastructure, it is anticipated that the current locally-servicing retail land use pattern will continue along Carefree Highway.

**Growth Areas Issues & Strategies**

**Growth Areas Issue 1: Unwanted Growth**
Residents are concerned that more residential development will reduce the rural quality and bring unwanted traffic and degradation of the environment and water resources. Increased density of development is not consistent with the desire of the residents to maintain their rural lifestyle.

**STRATEGIES**
- Promote new development that blends with the Planning Area character.
- Encourage the gross density of homes to remain at or below one-home per acre, while allowing clustering of homes to protect natural features and hillsides.

**Growth Areas Issue 2: Locally Serving Commercial and Retail**
Residents accept that limited shopping and retail offerings are part of the rural lifestyle and prefer locally serving restaurants and shops.

**STRATEGIES**
- Encourage development of locally-serving and independently owned restaurants and shops.
- Encourage new commercial and retail stores to reflect the rural character of the area through store design, site layout, native landscaping, low signage, and light that respects the night sky and surrounding neighborhoods.
Potential Growth Areas
**Growth Area Goals**

**Growth Areas Goal 1**
Achieve orderly growth within the Planning Area that is fiscally and environmentally responsible, protects public health and safety, and respects the existing character of the area.

**Growth Area Policies**

**Growth Areas Policy 1**
Direct higher-density residential and retail developments to locate in areas served by water and sewer infrastructure and an established road network.

**Growth Areas Policy 2**
Encourage urbanized land uses to be located only in identified growth areas.

**Growth Areas Policy 3**
Encourage new development to implement the Scenic Corridor Guidelines.

**Growth Areas Policy 4**
Encourage new development to be compatible with surrounding and adjacent land uses and integrate environmentally-sensitive design elements, accommodate a variety of land uses, and include multi-modal transportation options.

For more information:
1. Maricopa County 2020: Eye to the Future
2. Maricopa County Vision 2030 Comprehensive Plan
6. OPEN SPACE

Overview

Residents have long been drawn to the natural desert environment in the Planning Area. The amount and quality of open space are defining characteristics of the area. Feedback from the residents indicate that preservation of the natural environment, its washes, hillsides, and mountain views, is at the top of the priority list. This overarching value has been voiced by the residents of Upper New River, New River, Desert Hills, and Anthem regions, and is a unifying factor across the Planning Area.

Importantly, open space provides places for people to be physically active and contributes to the community’s equestrian and outdoor identity. Many of the hillsides and peaks are privately owned or are held as State Trust Land. This Plan encourages private land owners to develop their land responsibly and consult with the County on methods to preserve or minimize impacts without diminishing the use of the property. These methods are also discussed as part of section “1. Land Use” on page 28.

Connected open space is important to develop trail systems and preserve wildlife corridors. The Plan identifies both regional and community level trail systems. The trails utilize major washes and roadways to create a system of connected trails within the community as well as connections to neighboring cities and the Maricopa Trail.
As covered in the Vision 2030, this Area Plan supports the County’s Parks and Recreation Strategic System Master Plan and Regional Trail System Plan, and considers open space and connectivity to be a fundamental component of future development.

**Significant Changes from the 1999 Plan**
- Maricopa Trail bisects the Planning Area to connect Lake Pleasant Regional Park to Cave Creek Regional Park and Spur Cross Conservation Area.
- Proposed Daisy Mountain Trails on State Trust Land connects Upper New River, New River, Anthem, and Desert Hills as well as provides connections to the Maricopa Trail and Tonto National Forest.
- Slopes over 15% are identified to follow Hillside Development Ordinance.

**Open Space Inventory & Analysis**

The preservation of open spaces is the priority for residents. The Planning Area is predominantly rural, equestrian-oriented community that values access to and conservation of the natural desert.

This Area Plan recognizes that open spaces are intended to be planned and managed in order to protect, maintain, and enhance intrinsic value for recreational, aesthetic, and/or environmental purposes. The degree to which existing open space and wildlife habitat can be connected, or otherwise protected, depends on the community’s collective will to organize and financially support preservation efforts.
Parks, Schools, and Community Facilities

Within the Planning Area, Anthem has its own community recreation and community facilities, but there are other facilities shared by the larger Planning Area. Facilities providing places to gather, socialize, and recreate include:

- New River Kiwanis Community Park – Sport fields, riding arenas, community room and ramadas
- New River Senior Center (Located in New River Kiwanis Community Park)
- Daisy Mountain Fire and Medical Stations – Community meeting rooms
- New River Elementary School, Canyon Springs School, Caurus Academy, Anthem School, Diamond Canyon School, Boulder Creek High School, Anthem Prepatory Academy, Gavilan Peak School, Stepping Stones Academy, and Desert Mountain School – Sport fields, playgrounds, sport courts, community gathering
- Boulder Creek High School (Anthem)
- Churches
- North Valley Regional Library and Maricopa County Library District (Anthem) – Community rooms

Trails and Paths

Establishing trails and paths throughout the community increases the recreation potential and connectivity of the community both internally and regionally. The Area Plan identifies a robust network of public trails that links the communities within the Planning Area together and to the Maricopa Trail. The Maricopa Trail is a Regional Trail system managed by County Parks and Recreation. This trail bisects the Planning Area east to west, and is part of a loop trail system that links all of the Maricopa County Parks together.

- The Black Canyon National Recreation Trail (BCNRT) begins at the Bob Bentley Trailhead off of Carefree Highway about five miles west of I-17. The BCNRT Emerson Henderson Trailhead lies within the Planning Area off of New River Road. The BCNRT runs generally parallel to I-17 and extends north leading into the Prescott National Forest.
- The City of Phoenix has an extensive system of trails within the Phoenix Sonoran Desert Preserve. There is an opportunity to connect into the trail system along the southern boundary of the Planning Area.
- The Town of Cave Creek has planned a system of trails that traverse the town and connect to the Tonto National Forest.
- The Tonto National Forest has a variety of possible trail connections.
- An on-road network of paths, existing bike lanes, and future bike facilities are covered in the Transportation Plan Element, providing additional connections throughout the community and connecting gaps in public trail systems.
- 20-acre New River Nature Preserve which is owned and managed by Desert Foothills Land Trust and includes a rare willow and cottonwood forest.

Anthem

A master-planned community has a variety of private amenities including regional-scale sports fields, competition swimming pools, sport courts and neighborhood parks. In addition, the community has an extensive private path and trail system that borders roadways within open spaces and along washes, linking neighborhoods to the community amenities and schools.

The North Valley Regional Library, part of the Maricopa County Library District is co-located with Boulder High School, providing an important community resource and offering activities for the area. Three public elementary schools (Gavilan Peak School, Anthem School and Diamond Canyon School) provide a neighborhood focus that promotes a community spirit within Anthem.

State Trust Land

ASLD manages the majority of the Trust Land within the Planning Area as grazing leases. Also, ASLD grants
recreational use through an annual permit program for lands designated for open recreation. This program allows for a variety of recreational use including hiking, equestrian use, and camping. Currently, residents use this program to access much of the Trust Land within the Planning Area.

Parkland Forecasted Need

Existing Regional Parks

Maricopa County Parks manages and maintains 12 regional parks, preserves, and recreation facilities within the county. As illustrated in the Open Space Plan, Spur Cross Ranch Conservation Area and Cave Creek Regional Park are immediately east of the Planning Area, and Lake Pleasant Regional Park borders the west boundary of the Planning Area, which, combined, represents over 15,000 acres of regional park lands in close proximity to the Planning Area. In addition, these parks are connected by the Maricopa Trail that runs through the Desert Hills community.

REGIONAL PARKS ADJACENT TO PLANNING AREA:
- Cave Creek Regional Park ..................... 2,922 Acres
- Spur Cross Ranch Conservation Area ..... 2,154 Acres
- Lake Pleasant Regional Park .................. 10,000 Acres

Park Standards

The hierarchy of parks, as defined by the National Parks and Recreation Association (NRPA), range from small neighborhood parks that are one to two acres in size, to large, regional parks that can exceed 200 acres. Within the Planning Area outside of Anthem, Kiwanis Park is a community-level park (25+ acres) owned by Maricopa County Parks and managed by Kiwanis Club of New River. The focus of Maricopa County Parks is to maintain and manage regional-scale parks that serve several communities.

Forecasted Need

The NRPA standard for a regional park is 5-10 acres per 1,000 residents. The table below illustrates the current and forecasted population and park acres required to meet the standard.

<table>
<thead>
<tr>
<th>Type</th>
<th>Service Area</th>
<th>Desirable Size</th>
<th>Acres/1000 Residents</th>
<th>Desirable Site Characteristics and Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhood Parks</td>
<td>¼ to ½ Mile</td>
<td>5-15 Acres</td>
<td>1 to 2 Acres</td>
<td>Serve the surrounding neighborhoods with open space and facilities such as basketball courts, children’s play equipment and picnic tables</td>
</tr>
<tr>
<td>Community Parks</td>
<td>1-2 Miles</td>
<td>25+ Acres</td>
<td>5 to 8 Acres</td>
<td>May include areas suited for intense recreation facilities such as athletic complexes and large swimming pools. Easily accessible to nearby neighborhoods and other neighborhoods</td>
</tr>
<tr>
<td>Regional Parks</td>
<td>Several Communities</td>
<td>200+ Acres</td>
<td>5 to 10 Acres</td>
<td>Contiguous with or encompassing natural resources</td>
</tr>
<tr>
<td>Special Use Areas</td>
<td>No Applicable Standards</td>
<td>Variable</td>
<td>Variable</td>
<td>Area for specialized or single purpose recreation activities such as campgrounds, golf courses etc.</td>
</tr>
</tbody>
</table>

1. Source: National Parks and Recreation Parkland Classifications and Standards
Year | Planning Area Population | Park Acres/1,000 | Acres Required
--- | --- | --- | ---
2015 | 44,326 | 10 Acres | 443 Acres
2030 | 49,923 | 10 Acres | 499 Acres

Population from MAG Socioeconomic Projections, June 2016 (RAZ 203, 206)

Based on the forecasted need of 499 total regional park acres, the current Maricopa County Regional Park system acreage well exceeds the forecasted need and provides the residents access to three highly diverse parks. No new regional park lands are required to serve the Planning Area.

**Open Space Issues & Strategies**

**Open Space Issue 1: New River Kiwanis Community Park Improvement and Maintenance Funding**

New River’s Kiwanis Community Park is owned by Maricopa County under a Recreation and Public Purposes Act Patent with the Bureau of Land Management. The park is managed by the Kiwanis Club of New River under an agreement with Maricopa County Parks and Recreation. The 80-acre park provides ballfields, a horse arena, a playground, shade ramadas and a community room. The New River Senior Center located within the park provides seniors with a place to socialize, exercise, and engage in community support and activities. Seniors also have access to senior resources related to general support, health and transportation. Improvements and maintenance to the park is funded by the Kiwanis Club of New River. The park development has followed the 2000 Kiwanis Park Master Plan which can be found in Appendix D.

The Kiwanis Club of New River is in the process of updating the park’s Cultural Study, which is required to implement new plans. They have several projects in progress; one involves a grant worth $80,000 from Arizona State Parks. Any change to the park’s Plan of Development has to be done in consultation with the Bureau of Land Management and Maricopa County Parks and Recreation.

**STRATEGIES:**

- Support efforts by the Kiwanis Club of New River to obtain additional funding sources to increase the quantity and quality of their programs and amenities.
- Encourage the Kiwanis Club of New River and Maricopa County Parks and Recreation to identify needed updates or revisions to the Park Master Plan and to coordinate with the Bureau of Land Management to ensure that any changes to the Master Plan meet the terms and conditions of the BLM’s Public Purposes Patent.

**Open Space Issue 2: Daisy Mountain Trails**

Maricopa County Parks and Recreation is currently working with ASLD to explore the possibility of creating a trail system within the Daisy Mountain Area. The new trail system would link Anthem to New River and the Tonto National Forest, and south to Desert Hills and the Maricopa Trail (see “Image 3” on page 71). This system of trails would traverse the mountainous area of Daisy Mountain and would be accessed by two potential parking areas: the west access on Circle Mountain Road immediate north of Anthem; and the area off of New River Road, north of Zorrillo Drive. Maricopa County Parks and Recreation will work closely with the public, Arizona State Land Department, and other stakeholders prior to finalizing the location of trailheads and parking areas.
STRATEGIES

• Encourage residents and community organizations to partner with Maricopa County Parks and Recreation in developing, locating, and maintaining trails and trailheads on Daisy Mountain.

Open Space Issue 3 - Connected Trails

In addition to public trails within the Planning Area, there is an opportunity to further develop trails and an open space system along the many broad wash corridors that traverse the community. Many of the wash corridors have defined floodways that may restrict home construction. Additionally, equestrian paths are proposed as part of “2. Transportation” on page 39. These paths can provide critical linkages between currently disconnected open spaces.

STRATEGIES

• Encourage Maricopa County Parks and Recreation to work with area residents to identify connectivity gaps within the trails network and develop strategies to close the gaps. Possible strategies may include: safe roadway crossings, private land easements, and individual recreation permits on State Trust Land.

• Coordinate with MCDOT in the development of right-of-way equestrian paths where appropriate. See the Transportation Plan element for discussion on multi-modal trails and paths and recommendations that resulted from the New River Road Safety Analysis.

Open Space Goals

Daisy Mountain Focus Area Trails

Image 3  Daisy Mountain Trails (Source: Maricopa County Parks Department) Trail locations are approximate.
Open Space Goal 1
Provide regional leadership to promote the preservation of open space, natural areas and recreational land.

Open Space Policies

Open Space Policy 1
Support the creation of a community-wide, regionally-connected trail system that will improve recreational connectivity.

Open Space Policy 2
Support community efforts in maintaining and improving New River Kiwanis Community Park and programming of the New River Senior Center.

Open Space Policy 3
Encourage efforts by non-profit and community groups to preserve and protect open space and acquire and maintain recreational facilities.

Open Space Policy 4
Coordinate with the Bureau of Land Management and the Tonto National Forest on their Resource and Travel Management Plans.

For more information:
1. Maricopa County 2020: Eye to the Future
2. Maricopa County Vision 2030 Comprehensive Plan Maricopa County Regional Trail System Plan
3. Maricopa County Parks and Recreation Strategic System Master Plan
7. WATER RESOURCES

Overview

Residents identified water availability as one of the top three issues impacting the Planning Area. Arizona state law requires counties to include information related to available water supplies and estimated water demands in relation to future growth in long-range planning documents. Water supply and allocation are regulated at the state and federal levels. The withdrawal and use of groundwater in the Planning Area is governed by the 1980 Arizona Groundwater Management Act, which set up water management areas. Additionally, the Planning Area is a part of the Phoenix Active Management Area (AMA) and is managed by the Arizona Department of Water Resources (ADWR), which oversees the groundwater rights. As a result, Maricopa County has a limited role in managing water resources in the Planning Area.

Water Resources Inventory & Analysis

The purpose of this section is to provide an inventory and to document the present conditions of the water resources within the Planning Area. It will also provide an analysis of future water needs and possible sources to support the projected population growth.

Domestic water in the area is primarily supplied by groundwater wells that are owned by water companies or individual residents, with the exception of Anthem. Anthem is unique within the Planning Area, in that it has access to surface water supplied from the Central Arizona Project (CAP) canal, meeting their 100-year assured water supply requirement.

Domestic water for the Planning Area is supplied by the following active water companies:

- Shangri La Water Works – This small private water company supplies groundwater through a series of five registered wells primarily to its immediate resort property.
- The Town of Cave Creek service area includes parts of the Desert Hills region. However, within their service area, many residents have individual wells.
- EPCOR Water – The water and utility manager for Anthem provides water and effluent services to the Anthem Community. In addition to being the water manager for Anthem, EPCOR provides a water-hauling fill station for water haulers servicing rural residents of Upper New River, New River and Desert Hills.

The majority of residents outside of Anthem depend on individual or shared wells. According to the residents, the production of wells varies greatly depending on season and well depth. A dry well is a concern as an increasing number of homes are constructed within the Planning Area.

Water Supply Analysis

This section analyzes the historical and future groundwater usage in the Planning Area. The Arizona Department of Water Resources utilizes the Groundwater Site Inventory (GWSI) to monitor changes in the water table. Within the GWSI area, Index Wells provide ADWR with consistent well locations where water levels can be measured on a regular basis, typically every one to two years. The results from the Index Wells date back 16-36 years and illustrate a declining water table depth. Only one well in the Planning Area has an increasing water level. The map indicates that the Desert Hills region has a deeper aquifer than the northern portions of the Planning Area.

Analysis of the Index Well Log information in the Planning Area indicate that the well water depth in the northern portion of the Planning Area is generally dropping at a rate of 1.21’ to 1.83’ per year. The wells in the southern portion are less consistent, with water levels dropping between 0.76’ to 9.11’ per year.
ADWR divides wells into two reporting categories: exempt and non-exempt. Exempt wells are those with a pump capacity of 35 gallons per minute or less and are exempt from ADWR reporting requirements. These smaller wells are generally for home use or livestock watering purposes. Non-exempt wells have a pump capacity that is greater than 35 gallons per minute and are required to report annual pumpage if within the Active Management Area. Most non-exempt wells are used for agricultural irrigation or belong to a city, town or private water company. Figure 1 (below) illustrates the number of Exempt Wells applications per year.

Although a record number of new exempt well applications during years 2000-2005 and record low number of applications during the Great Recession may not be realistic in projecting trends in future well applications, this analysis utilizes a longer projection. Over a 38-year period, an average of 93 new exempt wells per year were used to project future exempt well applications.

Table 1: Index Well Historical Groundwater Depth—Refer to Ground Water Depth Plan for well locations.

<table>
<thead>
<tr>
<th>ADWR GWSI Well Number</th>
<th>Well Depth</th>
<th>Year / Depth to Water</th>
<th>Water Level Difference</th>
<th>Years Monitored</th>
<th>Average Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-07-02 27ABA</td>
<td>487’</td>
<td>2002/26.1’ – 2018/15.3’</td>
<td>+10.8’</td>
<td>16</td>
<td>0.67’</td>
</tr>
<tr>
<td>A-07-02 25BCA1</td>
<td>430’</td>
<td>1982/10.6’ – 2018/76.3’</td>
<td>-65.7’</td>
<td>36</td>
<td>-1.83’</td>
</tr>
<tr>
<td>A-07-02 25CCD</td>
<td>500’</td>
<td>1982/156.7’ – 2018/200.2’</td>
<td>-43.5’</td>
<td>36</td>
<td>-1.21’</td>
</tr>
<tr>
<td>A-06-03 05ADA</td>
<td>406’</td>
<td>1977/102.7’ – 2018/156.9’</td>
<td>-54.2’</td>
<td>41</td>
<td>-1.32’</td>
</tr>
<tr>
<td>A-06-03 05CCC2</td>
<td>506’</td>
<td>1991/75.5’ – 2018/202.9’</td>
<td>-127.4’</td>
<td>27</td>
<td>-4.72’</td>
</tr>
<tr>
<td>A-06-02 25BDD1</td>
<td>480’</td>
<td>1997/289.5’ – 2018/305.4’</td>
<td>-15.9’</td>
<td>21</td>
<td>-0.76’</td>
</tr>
<tr>
<td>A-06-03 25BBC</td>
<td>735’</td>
<td>1997/564.6’ – 2017/647.9’</td>
<td>-83.3’</td>
<td>20</td>
<td>-4.17’</td>
</tr>
</tbody>
</table>

Source: ADWR Groundwater Site Inventory (GWSI) - Index Well Information

Figure 1: Number of New Exempt Wells Per Year

Source: ADWR Groundwater Site Inventory (GWSI) - Exempt Well Applications
Projected Groundwater Demand

Water demand projections in the Planning Area outside of Anthem are based on historical data of exempt wells. Using the long-term (1980-2018) average rate of 93 new exempt wells annually, the total number of exempt wells by 2030 can be estimated. Using this method, the number of exempt wells in the Planning Area could increase from 3,346 in 2018 to approximately 4,462 in 2030.

Since many homes in the Planning Area use exempt wells for water consumption, the number of wells in the area should roughly reflect the water usage in the Planning Area. However, some residents also haul water to their homes from a haul station provided by EPCOR, and other water companies deliver water to the Planning Area. An increase in the number of water haulers, or expansion of their delivery areas, is not expected to impact future reliance on exempt well applications.

To determine water use in the Planning Area, annual water use records for exempt wells would provide the best metric to reflect the average per well use. Since exempt wells do not require reporting water use, and considering that most properties are large lot parcels with livestock, an estimate of one acre-foot (325,851 gallons) per year per exempt well will be used for current and future demand.

Figure 2 illustrates the 2018 exempt well water demand of 3,346-acre feet (ac/ft) within Upper New River, New River and Desert Hills. At an average of 93 additional ac/ft of water per year through the year 2030, an additional 1,116 ac/ft, or 363.7 million gallons will be required.

Projected Water Level Trends

Water supply for the Planning Area outside of Anthem will continue to be reliant on groundwater wells and hauled water for the foreseeable future. The water supply analysis as part of the Water Resources Plan Element indicates that groundwater levels will continue to drop, and that well depths may need to increase to access available water. As the well depths increase, it may not be economically feasible for individual residents to drill to a depth required for a sustained water supply. It is likely that deeper wells shared by multiple residents may be necessary for continued water supply.

Understanding the limitations of the groundwater resource is critical in ensuring that an adequate water supply is available to meet future needs and growth. Groundwater conservation, on-site water collection, gray water use and water quality protection efforts will be important in ensuring that the water supply is used wisely and is available for future generations.
Water Resources Issues & Strategies

Water Resources Issue 1 - Domestic Water Supply
The Planning Area primarily relies on private wells or hauled water. Residents have concerns that the supply is not sufficient for current residents and that water availability will decrease as growth occurs.

STRATEGIES
• Limit groundwater depletion through conservation and limiting exterior use.
• Inform and provide resources to residents to support Low Impact Development (LID) techniques and implementation. The Flood Control District of Maricopa County (FCD) provides resources and guides for LID (See FCD LID Guide in Appendix B).
• Inform and provide resources to residents to support gray water reuse.
• Inform and provide resources to residents to support rainwater harvesting and storage.
• Encourage positive groundwater recharge where appropriate.
• Where wells are not productive, or as an alternative to the expense of new well construction and maintenance, residents may elect to purchase water through a hauled water service or enter into a shared well agreement to offset the cost of drilling deeper wells.
• Future Domestic Water Improvement District (DWID) - A special county improvement district that is formed by community members of the county for the purpose of constructing or improving a domestic water, delivery system, or purchasing an existing domestic water delivery system and, if necessary, making improvements to it.

A cistern collecting roof runoff is an example of methods that residents can implement to offset water needs.
Examples of water harvesting and bio-swale techniques.
**Water Resources Goals**

**Water Resources Goal 1**
Promote renewable water use and water conservation, water reuse and pollution prevention strategies to protect and preserve existing water resources.

**Water Resources Policies**

**Water Resources Policy 1**
Support continued monitoring and evaluation of the Planning Area’s groundwater conditions by the Arizona Department of Water Resources.

**Water Resources Policy 2**
Encourage the inclusion of water conservation techniques and use of reclaimed water in the planning and design of new homes and retail development.

**Water Resources Policy 3**
Support low water use and drought tolerant landscaping.

**Water Resources Policy 4**
Support the use of renewable water sources for parks, common area landscaping, and decorative water features.

**Water Resources Policy 5**
Educate the public about the importance and benefits of water conservation, rainwater harvesting, gray water and aquifer protection strategies.

**Water Resources Policy 6**
Ensure that new development complies with all local, state and federal water supply and water quality regulations.

**Water Resources Policy 7**
Support and encourage efforts by ADWR to determine the availability of groundwater for wells and potential negative impacts that new wells may have on existing wells.

For more information:
1. Phoenix Active Management Area
2. Maricopa County 2020: Eye to the Future
3. Maricopa County Vision 2030 Comprehensive Plan
Groundwater Depth

Groundwater Depth

Daisy Mountain/ New River Area Plan

Arizona Department of Water Resources - Index Well Location and Well Registration Number

Disclaimers: This map is a graphical representation designed for general reference purposes only. Viewer/User agrees to indemnify, defend and hold harmless Maricopa County, its officers, departments, employees and agents from and against any and all suits, actions, legal or administrative proceedings, claims, demands or damages of any kind or nature arising out of the use of this map, or the data contained herein, in its actual or altered form.

Maricopa County OET, GIS Division, 5/2/2019
8. ENERGY

Overview

Efficiency regarding the consumption of electric, propane, and natural gas is becoming an increasingly important consideration due to long-term costs and availability of natural resources as well as concerns about the environment. Maricopa County recognizes that technological innovation leads to cost effective energy production and use, which ultimately creates economic and environmental benefits. Finding measures to promote more efficient energy use and renewable energy will help Maricopa County become a leader in supporting a longer lasting and dependable energy supply.

Energy Inventory & Analysis

Energy Sources

The majority of residents within the Plan Area receive power from the local infrastructure. Some supplement their needs with solar panels, batteries, and liquid propane. Currently nuclear power, coal, and natural gas are the major sources of the State’s power generation. Cost and availability of fuels ultimately determine the most effective method of generating electricity.

Renewable energy sources, in particular solar power, are becoming more available, less cost-prohibitive, and should be considered as viable alternatives or supplements to traditional energy sources. Custom solar systems with storage batteries are becoming an attractive supplement to power from the grid. Maricopa County has very high photovoltaic solar potential compared to the rest of the country. Therefore, much of the energy needs of a home or business can be supplied completely by on-site systems. Typically, heavier air conditioning loads during the summer months, however sometimes require additional power from the grid.

Similar to conserving and efficiently using water, efficient and conservative use of energy results in economic and environmental benefits. The most cost-effective way to achieve energy efficiency is to implement it during the planning and building design stages. Energy conservation should be taken into account and should be included in the project design. Many off-grid technologies are available and extend to the independent, rural lifestyle. Due to the community’s desired rural land use pattern, employment opportunities are not available in the immediate area and commuting for employment is necessary. Consequently, the cost of gasoline becomes a significant energy cost for residents. Transit or ride sharing can significantly reduce fuel costs while reducing traffic congestion. It is anticipated that electric and more fuel-efficient cars will further reduce the energy costs of residents.

Energy Issues & Strategies

Energy Issue 1: Energy Independence is an Ideal Rural Lifestyle

Large lot properties have a distinct advantage for energy production. Areas to place ground mounted solar panels allow residents to clean and adjust panels seasonally maximizing energy output. Low-density and high elevations are cooler, reducing the energy load of air conditioning.

STRATEGIES

- Inform residents of energy conservation techniques such as how to design buildings to maximize passive solar resources.
- Residents can take advantage of grants and incentives from the federal government and utility companies to incorporate renewable energy sources into their residences or businesses.
Energy Issue 2: Transit and Carpool
Residents should pursue transit options to reduce fuel costs and car maintenance costs. Transit is discussed in more detail in both section “2. Transportation” on page 39 and section “4. Economic Growth” on page 57 sections.

STRATEGIES
• Promote Valley Metro’s vanpool program by providing park-n-ride pick up locations.
• Discourage urban development in remote areas.

Energy Goals

Energy Goal 1
Increase the use of renewable energy sources within the Planning Area.

Energy Goal 2
Increase energy efficiency and conservation within the Planning Area.

Energy Goal 3
Increase the availability of alternative transportation opportunities to reduce energy (fuel) use.

Energy Policies

Energy Policy 1
Support the implementation of renewable energy sources, energy conservation, and more efficient energy use.

Energy Policy 2
Support educational efforts that illustrate the options and benefits of energy conservation and energy efficiency.

Energy Policy 3
Encourage people to utilize alternative transportation methods such as van pool, car/ride sharing, and public transit.

For more information:
1. Maricopa County 2020: Eye to the Future - Carefree Highway Scenic Corridor Study (2008)
2. Maricopa County Vision 2030 Comprehensive Plan
9. COST OF DEVELOPMENT

Overview

Arizona law requires counties to include a Cost of Development element in long-range planning documents. The purpose of the Cost of Development element is to identify policies and strategies that the County will use to ensure that new development pays its fair share of the costs for the new infrastructure needed to support the development. This element also looks at financial mechanisms that can be used to fund additional public services borne from new development. It also ensures that funding techniques bear a reasonable relationship between the financial obligation imposed on the county and its residents. This element only applies to new development that is seeking re-zoning or is subject to the County’s subdivision regulations.

Cost of Development Inventory & Analysis

Maricopa County Vision 2030 provides a thorough discussion of the types of cost sharing methods, legal considerations, and funding methods for new development. The funding methods pertinent to the Planning Area are included below.

Development Agreements: Maricopa County supports using development agreements for subdivisions and other projects where an agreement is deemed necessary.

Community Improvement Districts: Maricopa County supports community improvement districts on a limited basis where a specific public improvement is considered necessary.

Intergovernmental Agreements: Maricopa County supports agreements with cities and towns to help share infrastructure improvement costs. Intergovernmental agreements are particularly important for trails and roads that benefit multiple jurisdictions.

Fee for Service: New development requires oversight to ensure compliance with federal, state and local regulations, and to ensure proper permitting for public health and safety. Therefore, Maricopa County supports fully recovering the costs of its services in a way that does not unfairly burden those most in need of such services.

Cost of Development Issues & Strategies

Cost of Development Issue 1 - Funding Infrastructure for Development

Maricopa County supports new development paying its fair share of improvement costs. Implementing a fair and effective cost sharing program, however, requires deliberate and consistent action by the County in order to avoid harming the local economy or exposing the County to liability.

STRATEGIES

- Define, create and implement policies and procedures to require that development pay its fair share of the public infrastructure needs generated by the development.
Cost of Development Goals

Cost of Development Goal 1
New development pays proper and reasonable share of the costs of new infrastructure, services and other public improvements.

Cost of Development Policies

Cost of Development Policy 1
Support recouping the costs of products and services without unfairly burdening those most in need of products and services.

Cost of Development Policy 2
Support using the preferred funding methods identified in this Plan to offset costs of new development.

Cost of Development Policy 3
Support continuously evaluating the preferred funding methods with respect to legal, socioeconomic, land use and administrative considerations identified in this element, and making changes when deemed necessary.

For more information:
1. Maricopa County 2020: Eye to the Future - Carefree Highway Scenic Corridor Study (2008)
2. Maricopa County Vision 2030 Comprehensive Plan
## APPENDIX A - GLOSSARY OF TERMS

### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADOT</td>
<td>Arizona Department of Transportation</td>
</tr>
<tr>
<td>ADT</td>
<td>Average Daily Traffic</td>
</tr>
<tr>
<td>ADWR</td>
<td>Arizona Department of Water Resources</td>
</tr>
<tr>
<td>AICP</td>
<td>American Institute of Certified Planners</td>
</tr>
<tr>
<td>API</td>
<td>Arizona Preserve Initiative</td>
</tr>
<tr>
<td>ARS</td>
<td>Arizona Revised Statutes</td>
</tr>
<tr>
<td>ASLD</td>
<td>Arizona State Land Department</td>
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<tr>
<td>BLM</td>
<td>Bureau of Land Management</td>
</tr>
<tr>
<td>BOS</td>
<td>Board of Supervisors</td>
</tr>
<tr>
<td>CAP</td>
<td>Central Arizona Project</td>
</tr>
<tr>
<td>CIP</td>
<td>Capital Improvement Program</td>
</tr>
<tr>
<td>DMP</td>
<td>Development Master Plan</td>
</tr>
<tr>
<td>DWID</td>
<td>Domestic Water Improvement District</td>
</tr>
<tr>
<td>ESLO</td>
<td>Environmentally Sensitive Land Ordinance</td>
</tr>
<tr>
<td>FCD</td>
<td>Flood Control District of Maricopa County</td>
</tr>
<tr>
<td>FEMA</td>
<td>Federal Emergency Management Agency</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
</tr>
<tr>
<td>GWSI</td>
<td>Groundwater Site Inventory</td>
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<td>MAG</td>
<td>Maricopa Association of Governments</td>
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<td>MCDOT</td>
<td>Maricopa County Department of Transportation</td>
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<td>MCESD</td>
<td>Maricopa County Environmental Services Department</td>
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<tr>
<td>MCP&amp;DD</td>
<td>Maricopa County Planning and Development Department</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<td>NEVTS</td>
<td>Northeast Valley Area Transportation Study</td>
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<tr>
<td>RDA</td>
<td>Rural Development Area</td>
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<td>ROW</td>
<td>Right-of-Way</td>
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<tr>
<td>RPTA</td>
<td>Regional Public Transportation Authority</td>
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<td>Roads of Regional Significance</td>
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<td>SHPO</td>
<td>State Historic Preservation Office</td>
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<td>TSP</td>
<td>Transportation System Plan</td>
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<td>VMT</td>
<td>Vehicle Miles Traveled</td>
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<tr>
<td>VPD</td>
<td>Vehicles per Day</td>
</tr>
</tbody>
</table>
Terms

Alluvial: A general term for the sediments laid down in river beds, floodplains, lakes, fans at the foot of the mountain slopes, and estuaries during relatively recent geologic times.

Annexation: To incorporate an area/territory into a city, service district, etc.

Area Plan: Plans adopted by Maricopa County for specific subareas of the unincorporated County. These plans provide basic information on the natural features, resources and physical constraints that affect the development of the Planning Area. They also specify detailed land use designations which are used to review specific development proposals and plan services and facilities.

Arterial: A street providing traffic service for large areas. Access to adjacent property is incidental to serving major traffic movements.

Agriculture: Any use of land for the growing and harvesting of crops or animals for sale for profit, or uses which are directly ancillary to the growing and harvesting of crops or animals, which is the exclusive or primary use of the lot, plot, parcel, or tract of land; or processing crops to the generally recognizable level of marketability; or the open range grazing of livestock.

Aquifer: A saturated underground formation of permeable materials capable of storing water and transmitting it to wells, springs, or streams.

Buffer: A method of physically separating incompatible uses. Examples include: opaque fencing, vegetated berms, and dense landscaping.

Capital Improvement Program: A Board of Supervisors approved timetable or schedule of future capital improvements to be carried out during a specific period and listed in order of priority, together with cost estimates and the anticipated means of financing each project.

Character: Distinguishing quality or qualities that make an area unique.

Cluster Development: A development design that concentrates buildings in areas of the site to allow remaining land to be used for recreation, common open space and/or preservation of environmentally sensitive features.

Community: A group of individuals living in a common location sharing common interests.

Comprehensive Plan: A master or general plan containing guidelines for growth and development of the land within a jurisdiction, and coordinating policies affecting public services, benefits and regulations.

Critical Habitat: Key land areas used by wildlife for forage, reproduction or cover.

Developed Recreation Site: Distinctly defined area where facilities are provided for concentrated public use (e.g. campgrounds, picnic areas, boating sites, and interpretive facilities).

Density: A numeric average of families, individuals, dwelling units or housing structures per unit of land; usually refers to dwelling units per acre in the Comprehensive Plan.

Density Bonus: Permitting additional development on a parcel in exchange for items of public benefit such as affordable housing, recreation sites, infrastructure expansion, etc.

Developer: Any person or group of persons or legal entity which builds improvements on land, including buildings, streets, parking lots, drainage structures, and utilities to serve buildings.
**Development Master Plan (DMP):** A dynamic long term planning document that provides a conceptual layout to guide future growth and development. The DMP process is intended for those projects encompassing more than 640 acres and include both residential and other uses.

**Dwelling Unit:** A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities) that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

**Domestic Water Improvement District (DWID):** is a county improvement district that is formed for the purpose of constructing or improving a domestic water delivery system or purchasing an existing domestic water delivery system and, if necessary, making improvements to it.

**Easement:** An interest held by one person, party, or entity, in land of another, whereby that person is accorded partial use of such land for a specific purpose, such as access or utility extensions.

**Ecosystem:** Community of different species interacting with one another and with the chemical and physical factors making up its nonliving environment.

**Electronic communications:** technology that encompasses telecommunications as well as cell service (including 5G) and internet services.

**Endangered Species:** A species of animal or plant that is listed as endangered in accordance with the federal Endangered Species Act.

**Environment:** All of the factors (physical, social, and economic), that affect a population.

**Environmental Noise:** The accumulation of noise pollution that can occur in an area.

**Flood Hazard Areas:** Areas in an identified floodplain.

**Floodplain:** The channel and the relatively flat area adjoining the channel of a natural stream or river which has been or may be covered by floodwater and land immediately adjoining a stream which is inundated when the discharge exceeds the conveyance of the normal channel.

**Goal:** An ideal future end, condition or state related to the public health, safety or general welfare toward which planning and planning implementation measures are directed. The intended vision and future outcome for the Planning Area.

**Groundwater:** Water stored underground, beneath the earth's surface, in cracks and crevices of rocks and in the pores of geologic materials that make up the earth's crust.

**Habitat:** The sum of environmental conditions of a specific place that is occupied by an organism, a population or a community.

**Household:** The person or persons occupying a housing unit.

**Housing Unit:** A house, apartment, mobile home or trailer, group of rooms, or single room occupied as a separate living quarter or, if vacant, intended for occupancy as a separate living quarter. Separate living quarters are those in which the occupants live and eat separately from any other persons in the building and which have direct access from the outside of the building or through a common hall.

**Incorporated City:** Area(s)/neighborhood(s) joined together for the purpose of self-government.

**Infrastructure:** Facilities and services needed to sustain any type of development—residential, commercial or industrial. Includes water and sewer lines, streets, electrical power, fire and police stations, etc.
Intermodal: A system of moving goods that integrates several different forms of transportation methods (e.g. truck to rail).

Issues: Areas of concern or of special importance identified by the residents of the Planning Area.

Jobs-Housing Balance: An attempt to balance the number and types of jobs with the amount and cost of housing.

Landfill: A disposal site on land, into which solid wastes are deposited and compacted. At specific intervals, a layer of soil covers the waste and the process of deposit and compaction is repeated without creating nuisances or hazards to public health or safety. The purpose is to confine the wastes to the smallest practical area, to reduce them to the smallest practical volume.

Land Use: The occupation or use of land or water area for any human activity or any purpose defined in the Comprehensive Plan.

Manufactured Housing: A dwelling unit installed at the building site by connecting one or more segments which have been made in a manufacturing facility located off of the site. A manufactured home is built in compliance with the federal Manufactured Housing Construction and Safety Standards Act of 1974.


Multi-modal: Capable of accommodating a variety of transportation modes, such as buses, automobiles, rapid transit, rail, bicycles and pedestrians. A multi-modal transportation hub is a facility for the transfer of passengers and/or goods between different modes of transportation.

National Register of Historic Places: A listing maintained by the U.S. National Park Service of properties and areas which have been designated as historically significant. The Register includes places of local and state significance, as well as those of value to the nation in general.

Natural Resources: Elements relating to land, water, air, plant and animal life, and the interrelationship of those elements. Natural resources include soils, geology, topography, floodplains, vegetation, wildlife, surface and groundwater, and aquifer recharge zones.

Neighborhood: An area of a community with characteristics that distinguish it from other community areas and may include distinct ethnic or economic characteristics, schools, or social clubs, or boundaries defined by physical barriers such as major highways and railroads or natural features such as rivers.

Neighborhood Park: A recreation site developed for active and passive activities which is designed to serve one or a few neighborhoods within a short walking or driving distance to the park site. Typical equipment and facilities in a neighborhood park can include a mix of playground equipment, playing fields, picnic tables, landscaping, and on-site parking. Neighborhood parks are generally smaller than a community park, and they lack the variety of recreation experiences available in a larger park.

Non-attainment Area: Areas that do not meet the National Ambient Air Quality Standards (NAAQS) for one or more pollutants. The pollutants included in these standards include lead, oxides of nitrogen, sulfur dioxide, ozone, carbon monoxide, and PM10.

Non-motorized Recreation: Recreational opportunities provided without the use of any motorized vehicle. Participation in these activities travel by foot or horseback, etc. Bicycle riding is generally included under non-motorized recreation, but some land management agencies may restrict their use.

Objective: A specific end, condition or state that is an intermediate step toward attaining a goal. An objective should be achievable and, when possible, measurable and time specific.

Open Space: Publicly or privately owned and maintained lands in their natural state and protected from development. Open space lands are generally comprised of mountains and foothills, rivers and washes, canals,
vegetation, wildlife habitat, parks, and preserves.

**Overlay District:** a zoning district that is applied over one or more previously established zoning districts to create additional or stricter standards and criteria for properties. Overlay districts are commonly used to protect special features such as historical buildings or natural resources like stream corridors and watersheds.

**Park-N-Ride:** A voluntary system where participants drive to a central location in order to carpool or gain access to public transportation to another location.

**Particulates:** Small particles suspended in the air and generally considered pollutants.

**Permeability:** Rate at which water runs through soil.

**Planning:** The establishment of goals, policies, and procedures for social, physical, and economic order.

**Plat:** A scaled drawing, developed from a survey performed by a surveyor, that contains a description of subdivided land tied into to permanent survey monuments.

**PM10:** Airborne particulate matter of 10 microns or less in diameter. PM10 is the result of agricultural and construction operation, suspended dust, tire abrasion from vehicles traveling on roads, and natural occurrences such as wind storms.

**Policy:** A specific statement that guides decision making. Policies are statements of intent for actions to be taken in pursuit of a given objective.

**Population Density:** The number of people in a given area. The number may be obtained by multiplying the number of dwellings per acre by the number of residents per dwelling.

**Potable Water:** Water suitable for drinking.

**Protected Species:** Any species or subspecies subject to excessive taking and with significant threats or declining populations making it illegal to take them under the auspices of a hunting or fishing license.

**Regional Park:** A recreation area of 200 or more acres offering passive recreation opportunities for activities such as hiking, camping, picnicking, and climbing, but having no facilities for organized active forms of recreation.

**Response Time:** The time interval between the receipt of a request for public service or assistance, and the arrival of the service provider. Typically, response time measures the ability to get emergency service to a specific location, with delays attributed to dispatch time, driving distance, traffic conditions, ability to find the specific location, and the backlog of service requests.

**Rideshare:** A technique employed in traffic reduction programs which encourages commuters to carpool to work or other destinations (e.g. shopping, medical visits, etc.).

**Right-of-Way:** A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads and utility lines.

**Riparian Area:** An ecosystem associated with bodies of water, such as streams, lakes, or wetlands, or is dependent upon the existence of perennial, intermittent, or ephemeral surface or sub-surface drainage.

**Rural:** When used in the context of this Plan, rural areas are those areas intended for residential development on no greater than one acre lots, with limited supporting nonresidential uses.

**Rural Residential:** Single family residence on a parcel of one or more acres; it may include mixed residential and agricultural use.
**Scenic Area:** An area of outstanding or unique visual quality.

**Scenic Corridor:** A roadway with recognized high quality visual amenities that include background vistas of mountains, open country, or city.

**Strategies:** Methods to address the issues identified by the residents of the Planning Area.

**Subdivider:** Any person who offers for sale or lease six or more lots, parcels or fractional interests in a subdivision or who causes land to be subdivided into a subdivision for himself or for others, or who undertakes to develop a subdivision, but does not include a public agency or officer authorized by law to create subdivisions (as defined by A.R.S.§32-2101-49).

**Subdivision:** Improved or unimproved land or lands divided or proposed to be divided for the purpose of sale or lease, whether immediate or future, into six or more lots, parcels or fractional interests. Subdivision or subdivided lands include stock cooperatives and lands divided or proposed to be divided as part of a common promotional plan (as defined by A.R.S.§32-2101-50).

**Subsidence:** The gradual, settling or sinking of the earth’s surface with little or no horizontal motion. Subsidence is usually the result of water extraction from underground supplies and not the result of a landslide or slope failure.

**Suburban:** When used in the context of a Maricopa County Area Plan, suburban includes residential uses at generally two to three single-family units per acre and supportive nonresidential and public development.

**Threatened Species:** Any species or subspecies which is likely to become endangered within the foreseeable future because serious threats have been identified and populations are (a) lower than they are historically or (b) extremely local and small.

**Traffic Analysis Zones (TAZ):** A small geographic area within a municipal Planning Area designated by the Maricopa Association of Governments for the purpose of estimating and projecting population.

**Trip:** A one-way vehicle movement that either begins or ends at the location being considered; thus, a vehicle that leaves a home and later returns to it would account for two trips under this designation.

**Urban:** When used in the context of a Maricopa County Area Plan, urban includes development of three or more residential units per acre and comparably dense non-residential and public development.

**Viewshed:** The entire view of an area from a specific vantage point.

**Visual Resource:** The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have.

**Wastewater:** Includes sewage and all other liquid waste substances associated with human habitation, or of human or animal origin, or from any producing, manufacturing or processing operation of whatever nature.

**Watershed:** The entire area that contributes water to a drainage system or stream.

**Zoning:** The division of a jurisdiction into parcel specific categories with regulations governing the use, placement, spacing, and size of land and buildings corresponding to the categories.
**Raised Planters as Barriers**

Barriers such as raised planter beds combined with careful grading can help to divert flows away from the base of structures. Arrange these so that they won’t trap water on the inside of the barrier and do not divert any washes or concentrated flow.

In this example, a short planter wall interrupts the flow and directs it away from the structure. Instead of connecting the planter to the side of the structure, it is left open so that any runoff from the roof flows away freely. Check with your local jurisdiction before building as you may need a drainage clearance permit depending on certain conditions. If your property is located in a floodplain, you will need a permit to build.

**Water Pump**

Use a water pump to remove any seepage that may have built up behind your barrier. Consider purchasing your own water pump that can handle pumping a couple of gallons per minute.

**Wrap Barriers with Plastic**

Covering barriers with plastic sheeting that can be found at your local hardware store will improve the watertightness of your barriers. Two easy methods of securing plastic sheets are shown below.

**Stacking Sandbags**

If you need to build up your barrier more than one foot in height, lay the bags out in a pyramid shape. The general rule of thumb is to make the base layer three times as wide as the barrier is tall so it can withstand the flow of floodwaters.

**Flow**

**Low Planter**

**Stacking Sandbags**
Homeowner’s Guide to Emergency Flood Protection

Flooding is a leading cause of weather-related property damage and deaths in the United States. In the desert, storms and flooding can strike quickly so it is important to be prepared. When a storm is approaching, turn to media such as TV, radio, or visit reliable online sources to get the latest weather updates and instructions.

If you have received warning of flooding in your area, some precautionary steps listed here can be taken to PROTECT and SECURE your home and belongings.

**PROTECT**

Protect key places like doors, garages, and other openings by setting up barriers to keep flood waters from entering. Do not build a barrier around your entire home, as this can cause flooding by trapping water between the barrier and your home.

**SECURE**

If a storm is approaching, bring in outdoor furniture and belongings out of the way of potential flood waters and unplug any electronics from outlets close to the ground.

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**Additional Resources**

For more information on how to protect your property from flooding, visit your local municipality and flood control websites. You can also do a web search for the following resources for additional information.

- **Arizona Emergency Information Network (AzEIN):** http://ein.az.gov
- **FEMA Above the Flood: Elevating Your Floodprone House**
- **FEMA Homeowner’s Guide to Retrofitting: Six Ways to Protect Your House From Flooding**
- **FloodSmart:** www.floodsmart.gov
- **USGS WaterAlert:** http://maps.waterdata.usgs.gov/mapper/wateralert
- **In a Floodplain?** www.maricopa.gov/238/In-a-Floodplain
- **Summer Monsoon Safety:** Phoenix.gov/pio/summer/update
- **Check If I’m In a Floodplain:** gis.maricopa.gov/floodplainviewer
- **Flood Control District of Maricopa County** www.fcd.maricop.gov

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In this example, a short planter wall interrupts the flow and directs it away from the structure. Instead of connecting the planter to the side of the structure, it is left open so that any runoff from the roof flows away freely. Check with your local jurisdiction before building as you may need a drainage clearance permit depending on certain conditions. If your property is located in a floodplain, you will need a permit to build.

**Stacking Sandbags**

If you need to build up your barrier more than one foot in height, lay the bags out in a pyramid shape. The general rule of thumb is to make the base layer three times as wide as the barrier is tall so it can withstand the flow of floodwaters.

**Use a water pump**

To remove any seepage that may have built up behind your barrier, consider purchasing your own water pump that can handle pumping a couple of gallons per minute.
Setting Up A Sandbag Barrier

Here are steps to maximize your sandbag barrier’s effectiveness. Many municipalities offer free sandbags and sand in preparation for monsoon season. Consider purchasing reusable sand-less sandbags from a local hardware store or online retailer.

1. Remove any debris from the area the bags will be placed.

2. Lay bags parallel to water flow.

3. Tightly overlap the edges of the sandbags.

4. Fill the low spots with sandbags first (A) and then build up the rows of sandbags (B).

5. Offset each row of sandbags by one half a bag length. Offsetting the seams strengthens the seal.

6. After placing each row, walk on the bags to flatten them to reduce seepage.

Door Barriers

Additional barrier options are available to keep floodwater out of your home such as door shields. These often slide into installed tracks on either side of the doorway or wall opening blocking water from entering.

Hay Bale Barriers

A barrier made from hay bales staked into the ground can be a quick short term line of defense during a flood event. They are also helpful in trapping the sediment floodwaters pick up. Hay bales should be firmly staked in place in a four to six inch deep trench and backfilled with excavated dirt. Be sure to dispose of these in a timely manner as the exposure to the stormwater and anything it may have been carrying can rapidly break down the bales.
**Self Activating Flood Barriers**

Self activating flood barriers, also called sand-less sandbags, can be found at your local hardware stores or at online retailers. These barriers contain material that expands when it comes into contact with water forming a barrier similar to sandbags. Many self activating barriers can be reused throughout the year.

While dry, the barriers are lighter and easier to carry than conventional sandbags. They can also be stacked in multiple layers for increased protection.

**Flood Barriers - Water Gates**

Water gates are another kind of water barrier that self rises when the flow of water pushes against it. The barrier is oriented to face into the flow of runoff and rolled out. The flexible nature of the heavy duty plastic allows it to bend and form curves if needed.

Flood waters flow into the barrier deploying it automatically. The barrier uses the weight of the water to hold down and stabilize the barrier giving it the strength needed to stop the flow. Water gate barriers come in many different sizes and lengths and can be linked together to create longer sections. These barriers can be set up or removed in minutes and easily packed for reuse.
Private Roads -
Not County Maintained

If a road in an unincorporated area is private, (not
accepted into the MCDOT roadway system) and
you want to grade the road, there are important
permitting considerations:

To determine if the road is located within a
regulated floodplain, contact the Flood Control
District at 602-506-1501 or review the maps at

If the road is within a regulated floodplain, a
Floodplain Use Permit and Grading Permit will be
required. Permits would be obtained through the
Planning & Development Department (P&D) at
602-506-3301 or to review the process, visit

If the road is not located within a floodplain or
defined wash, maintenance of an unpaved road
may not require a Grading Permit from P&D.
Permits are not required provided:
→ existing roadway storm water flow pattern is
  not altered;
→ existing roadway grade/elevations, are not
  changed by more than 12 inches.

A Dust Permit from the Air Quality Department will
be required if 0.1 acre or more is disturbed.

DEPARTMENT OF TRANSPORTATION
2901 W. Durango St., Phoenix, AZ 85009
602-506-6000
www.mcdot.maricopa.gov/contact

AIR QUALITY DEPARTMENT
1001 N. Central Ave., Phoenix, AZ 85004
602-506-6010
www.maricopa.gov/aq

PLANNING & DEVELOPMENT
501 N. 44th St., 2nd Fl., Phoenix, AZ 85008
602-506-3301
www.maricopa.gov/planning

FLOOD CONTROL DISTRICT
2801 W. Durango St., Phoenix, AZ 85009
602-506-1501
www.fcd.maricopa.gov

OFFICE OF SUPERINTENDENT OF STREETS
2901 W. Durango St., Phoenix, AZ 85009
602-506-8797
www.mcdot.maricopa.gov/ncid
Unpaved Roads

Before taking any action to control dust, it is important to determine the ownership and which government agency controls the road.

In rural areas of Maricopa County, many unpaved roads are private ingress/egress easements. Some may have been dedicated for public use, but may or may not have been accepted into the Department of Transportation’s (MCDOT) roadway maintenance system.

It is also important to know if and at what location a roadway passes into another government jurisdiction. Other road conditions may include drainage concerns or regulated floodplains.

To determine roadway ownership/jurisdiction please click on the MCDOT Roadway Information Tool link: http://gis.maricopa.gov/RoadInformationPublic

Dust Control Measures

Maricopa County Air Quality Department (MCAQD) and MCDOT are committed to reducing airborne pollutants to improve air quality for everyone. A few simple actions to help reduce dust on unpaved roads and the impact to your property are:

- Reduce speed—drive slowly
- Use gravel, sand, straw, wood chips, or other dust suppressants on private roads and driveways
- Install windscreens or shade cloth on chain link fencing for windblown dust
- Grow vegetation around your property

MCAQD regulates unpaved roads and easements where more than 150 vehicle trips per day, and those owned or maintained by Federal, State, County, Municipal, or other governmental or quasi-governmental (supported by the government but managed privately) agencies.

MCAQD does not regulate private unpaved roads unless, 0.1 acre or more is disturbed during construction or maintenance activities.

County Improvement District

If you live on a road that is not maintained by the County, in the unincorporated areas of the county, you may be eligible to form a County Improvement District (CID) to maintain or pave your road. CID’s allow residents to get together and petition to improve their neighborhoods.

Residents can initiate the request for a petition to form a CID with the Office of Superintendent of Streets. It is important to recognize the right-of-way easements and the improvements must be dedicated to the County. Moreover, the property owners within the CID are perpetually responsible for the costs of any improvements.

Among the many types of CID’s are two types of road improvement districts:

- Maintenance Improvement District (MID)
- Paving Improvement District (PID)

MCDOT’s maintenance and construction activities are performed in accordance with MCAQD and EPA requirements and part of a larger countywide plan to reduce particulate air pollution.

For more information on County Improvement Districts contact the Office of the Superintendent of Streets at 602-506-8797.

File a dust complaint with the Air Quality Department by calling 602-506-6010.
APPENDIX E - SCENIC CORRIDOR GUIDELINES

NEW RIVER/I-17 SCENIC CORRIDOR

The entire county is experiencing rapid growth and development that has the potential to impact scenic areas like those along the I-17 and New River Road. To help mitigate the impacts of new development, maricopa county has identified areas along the I-17 and New River Road as scenic corridors. A scenic corridor designation allows for special development guidelines that are intended to protect the unique views and rural character along this route. Maricopa county will encourage new development to follow these guidelines as part of the entitlement and development process. While scenic corridor guidelines provide residents with input on the development of their community, it is important to identify their limitations. Namely, scenic corridor guidelines are policy statements and are not regulatory. This means that they are guides for public and private decision makers about the character of future development in the corridor. These guidelines are intended to help integrate growth into the community, minimize impacts to quality of life and reflect the residents’ desires for the future of their community.

1. PURPOSE

1.1 To preserve the existing character of the I-17 Corridor.
1.2 To preserve environmentally sensitive land areas and view corridors.
1.3 To encourage innovative and sensitive planning, quality design and construction techniques for development.
1.4 To protect the natural environment and preserve and enhance the intrinsic qualities that makes the I-17 a scenic corridor.
1.5 To maintain the existing scenic beauty along the highway.
1.6 To encourage safe and efficient traffic flow.
1.7 To encourage orderly commercial development in accordance with the adopted land use plan.
1.8 To encourage multimodal transportation options in the Corridor.
1.9 To promote the public health, safety and general welfare.

2. GENERAL PROVISIONS

2.1 The Scenic Corridor boundary is ½ mile on either side of the edge of the ADOT/I-17 right-of-way between New River Road and the Yavapai County boundary and certain areas outside the ½ mile specifically identified for additional protection.

2.2 Property divided by the Scenic Corridor boundary is subject to the guidelines only for that segment of the property within the zone.

2.3 All new development is encouraged to conform to Scenic Corridor guidelines. Existing uses are governed by the applicable regulations.

3. PERMITTED USES

3.1 Same as those allowed by primary zoning district.

4. Guidelines

4.1 Planned Development Overlay

4.1.1 Any rezoning must comply with the Planned Development Overlay District regulations.
4.1.2 The Planning Commission may include reasonable additional requirements to promote the purpose of the New River/I-17 Scenic Corridor, except for individual single family residences.

4.2 Height
4.2.1 Residential: 20’ within 500’ of the frontage road centerline
4.2.2 Commercial: height of 2 stories no greater that 28’ within 50’ of the perimeter lot line; one foot increase allowed for each 5’ of additional setback up to a maximum of 32’.

4.3 Screening

Non-residential uses:
4.3.1 Screen all mechanical rooftop equipment to height of the tallest equipment and/or integrate with building design. Equipment screening is included in the maximum building height.
4.3.2 Any screening element should be architecturally compatible with the primary structure.
4.3.3 Parking screening may consist of berms; native, Sonoran desert vegetation; solid wall with a minimum height of 30” and maximum height of 48”; or a combination of the above. If landscape is used for screening, 5-gallon minimum size shrubs are preferred and 100% screening is to be achieved within 1-year and maintained.
4.3.4 Screen outside storage from view from I-17, including, but not limited to open storage, portable buildings and roll-off containers. Screen to be a minimum eight foot height screen wall and/or gate.
4.3.5 Place landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert in front of any wall facing the corridor, in the same density, size and placement as the original, natural state of the area.
4.3.6 Screen trash containers, loading docks, transformers and other mechanical and/or electrical equipment from view. Trash containers and loading docks to be screened with a minimum six-foot high wall and/or solid gate. Place landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert in front of any wall facing the corridor, in the same density and placement as the original, natural state of the area.

4.4 Signs
4.4.1 Signs should be consistent with the architectural treatment of the principal building and overall character of the site. Colors that are muted and compatible with the desert environment are preferred. Paint, prefinished materials and moldings are encouraged to have a maximum Light Reflectance Value (LRV) of 40%
4.4.2 Signs that are placed closer to the frontage road center line than 80% of the required average width of the scenic corridor setback are discouraged.
4.4.3 Off-site advertising is discouraged.
4.4.4 Residential development signs:
4.4.4.1 All signs should be affixed to walls or designed as a sign monument consistent with the architectural treatment/theme of the development.
4.4.5 **Commercial signs**

4.4.5.1 Ground mounted signs and sign monuments are not to exceed a height of six feet.

4.4.5.2 Maximum square footage is 32 square feet for a single business and 48 square feet where two or more businesses share a common parcel or parking lot.

4.4.6 **Building wall signs**

4.4.6.1 Not to exceed the height of the building wall.

4.4.6.2 Maximum size is 24 square feet for a single business, and 16 square feet per business where two or more businesses share a common parcel or parking lot.

4.4.6.3 No more than one sign per street frontage per business as described above.

4.4.7 **Residential monument signs**

4.4.7.1 Architectural compatibility with other signs and with other structures on the site is strongly encouraged.

4.4.7.2 Maximum size is 24 square feet.

4.4.7.3 Maximum height, measured from the ground, is five feet.

4.4.7.4 Freeway Pylon signs are discouraged.

4.4.7.5 Off-site advertising is discouraged.

4.5 **Architectural Design**

4.5.1 All materials and colors to be muted and compatible with the desert environment to reduce visual contrast, heat gain and glare. Paint, prefinished materials and moldings are encouraged to have a maximum Light Reflectance Value (LRV) of 40%.

4.5.2 Design features should be included on all sides of building. Special treatment or screening is required for commercial parcels that abut residential properties (vacant or built).

4.5.3 Reflective glass is discouraged.

4.5.4 Accessory structures should match the style and appearance of the principal building.

4.5.5 Roofing materials, mechanical equipment, inner parapets walls and screens visible are to be painted or prefinished to be non-reflective, and a maximum Light Reflectance Value (LRV) of 45%.

4.6 **Slope**

4.6.1 Percent of property to remain natural or be revegetated with natural, Sonoran Desert vegetation:

- 0 to 5% slope = 25%;
- 5 to 15% slope = 60%;
- 15 to 25% slope = 80%;
- 25%+ = 90%.

4.6.2 Preserve washes and other significant natural features when locating required natural areas. Existing natural features are to be identified on the Site Plan. No cuts, fills, or grading allowed without proper permits and approvals.
4.7 Setback
4.7.1 Within the corridor area all structures, fences, parking areas and other improvements (except for driveways and walkways) to be set back an average of 125’, minimum of 95’ from the frontage road center line to allow for an undulating rather than a linear setback. Unless the setback is natural undisturbed natural desert, the setback is to be landscaped consisting of native trees and vegetation indigenous to the upper Sonoran Desert in the same density and placement as the original, natural state of the area. Ground surface to be natural soil or naturally appearing rock mulch.

4.7.2 Preserve and protect all existing vegetation and topsoil material in the setback area except for driveways and walkways, in which case the plan survey and salvage plan requirements set forth in 4.13.3 will apply. Setback area to be protected with during construction with fencing.

4.8 Access
4.8.1 One vehicular access point per non-residential development, except if traffic impact study demonstrates need for additional driveways and staff concurs with that study.

4.9 Parking
4.9.1 Fifteen percent of the parking area, not including perimeter landscaping, to be landscaped with native vegetation. Provide one landscape island per eight parking spaces with a minimum width of six feet and extend the length of two parking spaces. Landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert to be placed in the landscape islands.

4.10 Lighting
4.10.1 All outdoor lighting must conform to the applicable Maricopa County regulations. Lighting is to be designed and specified to prevent light pollution and “sky glow”. Parking lot lighting to be a maximum of 16’ height, dark fixture color and light source fully shielded. All building or residential lighting attached to building façade is to be fully shielded. Light source temperature rating at all locations, including eve and canopy lighting is not to exceed 3000k.

4.10.2 Electronic signs that face to the street, either internal to building or on the exterior. Flashing, strobe or moving lights are discouraged.

4.10.3 Internally lighted signs are discouraged, either as a freestanding sign or attached to the building. Ground mount or face lighting is preferred. Ground mounted lighting not to exceed 3000k, to be fully shielded and where the light source is not visible from adjacent residents or roadways. Sign lighting not to exceed the equivalent of 100w incandescent. If internally lighted, internally lit signs must not exceed 300 nits between sunset and sunrise, and with no more than 25% of the sign message may be white.

4.10.4 Landscape lighting is not to exceed 3000k and not to exceed the equivalent of 75w incandescent and the light source not seen from residents or roadways.
4.11 Environmental Evaluation
4.11.1 For projects not regulated by the National Environmental Policy Act (NEPA), the developer is encouraged to complete habitat and special status species evaluation and submit it to the Arizona Game and Fish Department for review.

4.12 Utilities
4.12.1 New on-site or existing utility lines shall be located underground, except 69kv or greater.

4.13 Landscape
4.13.1 Preserve existing vegetation except for driveways and walkways, in which case the plant survey and salvage plan requirements set forth in 4.13.3 will apply. Existing landscape to be protected with fencing during construction. A wall curb or wall must be placed at the perimeter of all protected landscape to prevent vehicle access. Other than property signage, sidewalk and lighting, no displays, structures or clearing, either temporary or permanent should be placed in the preserved landscape area.
4.13.2 Revegetation to be consistent with the Sonoran desert, in terms of topsoil material and plant type, density and placement. Finish ground plan to be native material or naturally appearing rock mulch.
4.13.3 A plant survey and salvage plan is encouraged before any construction may begin on new development. The plant survey is to include all trees, cactus and significant areas of vegetation on the site, including native and non-native species.
NEW RIVER ROAD/7TH STREET SCENIC CORRIDOR

The entire county is experiencing rapid growth and development that has the potential to impact scenic areas like those along the New River Road to 7th Street. To help mitigate the impacts of new development, Maricopa county has identified areas along the New River Road to 7th Street as scenic corridors. A scenic corridor designation allows for special development guidelines that are intended to protect the unique views and rural character along this route. Maricopa county will encourage new development to follow these guidelines as part of the entitlement and development process. While scenic corridor guidelines provide residents with input on the development of their community, it is important to identify their limitations. Namely, scenic corridor guidelines are policy statements and are not regulatory. This means that they are guides for public and private decision makers about the character of future development in the corridor. These guidelines are intended to help integrate growth into the community, minimize impacts to quality of life and reflect the residents’ desires for the future of their community.

1. Purpose

1.1 To preserve the existing character of the New River Road and 7th Street corridor.
1.2 To preserve environmentally sensitive land areas and view corridors.
1.3 To encourage innovative and sensitive planning, quality design and construction techniques for development.
1.4 To protect the natural environment and preserve and enhance the intrinsic qualities that makes the New River Road / 7th Street a scenic corridor.
1.5 To maintain the existing scenic beauty along the roadway.
1.6 To encourage safe and efficient traffic flow.
1.7 To encourage orderly residential development in accordance with the adopted land use plan.
1.8 To encourage multimodal transportation options in the corridor.
1.9 To promote the public health, safety and general welfare.

2. General provisions

2.1 The scenic corridor does not apply to individual single family residential properties, but the guidelines encourage private property owners to comply with the building color, landscape buffer and lighting standards to protect and promote the scenic quality of the corridor.
2.2 Rural retail and commercial rezoning requests will be evaluated for their conformance with these guidelines.
2.3 The natural scenic corridor boundary is ¼ mile on either side of the edge of the New River road / 7th Street right-of-way beginning ¼ mile north of Carefree Highway to the 1/2 east of New River Road bridge east of I-17. If there is discrepancy in areas covered by these guidelines, the I-17/ New River and Carefree Highway Scenic Corridor Guidelines prevail.
2.2 Property divided by the Scenic Corridor boundary is subject to the guidelines only for that segment of the property within the zone.
2.3 All new development is encouraged to conform to the Scenic Corridor guidelines. Existing uses are governed by the applicable regulations.
3. **Permitted uses**
   3.1 Same as those allowed by the primary zoning district.

4. **Guidelines**
   4.1 Planned development overlay
   4.1.1 Any rezoning must comply with the overlay district regulations.
   4.1.2 The planning commission or planning and development may include reasonable additional requirements to promote the purpose of the New River Road/7th Street scenic corridor.

4.2 **Height**
   4.2.1 Commercial: Height of 1 story no greater than 20’ within 50’ of the perimeter lot line; one foot increase allowed for each 5’ of additional setback up to a maximum of 28’. This applies to ancillary buildings including garages and barns.

4.3 **Screening**

   Non-residential uses:
   4.3.1 Screen all mechanical rooftop equipment to height of the tallest equipment and/or integrates with building design. Equipment screening is included in the maximum building height.
   4.3.2 Any screening element to be architecturally compatible with the primary structure.
   4.3.3 Parking screening may consist of berms, native, sonoran desert vegetation; solid wall with a minimum height of 30” and maximum height of 48”; or a combination of the above. If landscape is used for screening, 5-gallon minimum size shrubs are desired and 100% screening is to be achieved within 1-year and maintained.
   4.3.4 Screen outside storage from view from New River Road / 7th Street, including, but not limited to open storage, portable buildings and roll-off containers. Screen to be a minimum eight foot height screen wall and/or gate.
   4.3.5 Place landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert in front of any wall facing the corridor, in a density no less than one tree and five shrubs per twenty linear feet of wall. Trees to be 24” minimum box size and shrubs 5-gallon minimum placed informally to match natural landscape. Trees to be 24” minimum size and provide a minimum seven foot lower canopy at maturity.
   4.3.6 Screen trash containers, loading docks, transformers and other mechanical and/or electrical equipment screened from view. Trash containers and loading docks to be screened with a minimum six-foot high wall and/or solid gate. Place landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert in front of any wall facing the corridor, in a density and placement as the original, natural state of the area.
4.4  Signs
4.4.1  All signs to be consistent with the architectural treatment of the principal building and overall character of the site. Muted colors that are compatible with the desert environment are preferred. Paint, prefinished materials and moldings to have a maximum light reflectance value (LRV) of 40%.
4.4.2  Signs that are placed closer to the frontage road center line than 80% of the required average width of the scenic corridor setback are discouraged.
4.4.3  Off-site advertising is discouraged.
4.4.4  Residential development signs:
4.4.4.1  All signs to be affixed to walls or designed as a sign monument consistent with the architectural treatment/theme of the development.

4.4.5  Commercial signs
4.4.5.1  Ground mounted signs and sign monuments are not to exceed a height of five feet.
4.4.5.2  Maximum square footage is 24 square feet for a single business and 32 square feet where two or more businesses share a common parcel or parking lot.

4.4.6  Building wall signs
4.4.6.1  Not to exceed the height of the building wall.
4.4.6.2  Maximum size is 16 square feet for a single business.
4.4.6.3  No more than one sign per street frontage per business as described above.
4.4.7  Residential monument signs
4.4.7.1  To be architecturally compatible with other signs and with other structures on the site.
4.4.7.2  Maximum size is 24 square feet.
4.4.7.3  Maximum height, measured from the ground, is five feet.

4.5  Architectural design
4.5.1  All materials and colors should be muted and compatible with the desert environment to reduce visual contrast, heat gain and glare. Paint, prefinished materials and moldings to have a maximum light reflectance value (LRV) of 45%.
4.5.2  Design features to be included on all sides of building. Special treatment or screening is strongly encouraged for commercial parcels that abut residential properties (vacant or built).
4.5.3  Reflective glass is discouraged.
4.5.4  Accessory structures are to match the style and appearance of the principal building.
4.5.5  Roofing materials, mechanical equipment, inner parapets walls and screens visible are to be painted or prefinished to be non-reflective, and have a maximum light reflectance value (LRV) of 45%.
4.6  Slope
4.6.1  Percent of property to remain natural or be revegetated with natural, Sonoran Desert vegetation:

- 0 To 5% slope = 25%;
- 5 To 15% slope = 60%;
- 15 To 25% slope = 80%;
- 25%+ = 90%.

4.6.2  Preserve washes and other significant natural features when locating required natural areas. Exiting natural features are to be identified on site plan.

4.6.3  No cuts, fills, or grading allowed without proper permits and approvals.

4.7  Setback
4.7.1  Within the corridor area all structures, fences, parking areas and other improvements (except for driveways and walkways) are to be set back an average of 125’, minimum of 95’ from the frontage road center line to allow for an undulating rather than a linear setback. Unless the setback is natural undisturbed desert, the setback area is to be landscaped consisting of native trees and vegetation indigenous to the upper Sonoran Desert in the same density and placement as the original, natural state of the area. Ground surface to be natural soil or naturally appearing rock mulch.

4.7.2  Preserve and protect all existing vegetation and topsoil material in the setback area except for driveways and walkways, in which case the plan survey and salvage plan requirements set forth in 4.13.3 apply. Setback area to be protected during construction with fencing.

4.8  Access
4.8.1  One vehicular access point per non-residential development, except if traffic impact study demonstrates need for additional driveways and staff concurs with that study. Maximum width of a single driveway is 24’.

4.9  Parking
4.9.1  Fifteen percent of the parking area, not including perimeter landscaping, to be landscaped with native vegetation. One landscape island per eight parking spaces with a minimum width of six feet that extends the length of two parking spaces. Landscaping consisting of native trees and vegetation indigenous to the upper Sonoran Desert to be placed in the landscape islands.

4.10  Lighting
4.10.1  All outdoor lighting must conform to the applicable Maricopa County regulations. Lighting is to be designed and specified to prevent light pollution and “sky glow”. Parking lot lighting to be a maximum of 16’ height, dark fixture color and light source fully shielded. All building or residential lighting attached to building façade is to be fully shielded. Light source temperature rating at all locations, including eve and canopy lighting is not to exceed 3000k.

4.10.2  Electronic signs that face to the street, either internal to building or on the exterior and flashing, strobe or moving lights are discouraged.
4.10.3 Internally lighted signs are discouraged, either as a freestanding sign or attached to the building. Ground mount or face lighting is preferred. Ground mounted lighting not to exceed 3000k, to be fully shielded and where the light source is not visible from adjacent residents or roadways. Sign lighting not to exceed the equivalent of 100w incandescent. If internally lighted, internally lit signs must not exceed 300 nits between sunset and sunrise, and with no more than 25% of the sign message may be white.

4.10.4 Landscape lighting is not to exceed 3000k and not to exceed the equivalent of 75w incandescent and the light source not seen from residents or roadways.

4.11 Environmental evaluation
4.11.1 For projects not regulated by the National Environmental Policy Act (NEPA), the developer is encouraged to complete habitat and special status species evaluation and submit it to the Arizona Game and Fish Department for review.

4.12 Utilities
4.12.1 New on-site or existing utility lines should be located underground, except 69kv or greater.

4.13 Landscape
4.13.1 Preserve existing vegetation except for driveways and walkways, in which case the plant survey and salvage plan requirements set forth in 4.13.3 apply. Existing landscape to be protected with fencing during construction. A wall curb or wall should be placed at the perimeter of all protected landscape to prevent vehicle access. Other than property signage, sidewalk and lighting, no displays, structures or clearing, either temporary or permanent to be placed in the preserved landscape area.

4.13.2 Revegetation to be consistent with the Sonoran Desert at 1.5 times the surrounding density, in terms of topsoil material and plant type, density and placement. Finish ground plain to be native material or naturally appearing rock mulch.

4.13.3 A plant survey and salvage plan are encouraged before any construction may begin on new development. The plant survey is to include all trees, cactus and significant areas of vegetation on the site, including native and non-native species.
<table>
<thead>
<tr>
<th>Land Use Designation</th>
<th>Designation Description &amp; Characteristics</th>
<th>Appropriate District</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Residential - Single Family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single Family - Rural</td>
<td>Density of 1 dwelling unit or less per gross acre</td>
<td>Rural 190, Rural 70, Rural 43</td>
</tr>
<tr>
<td>Single Family - Large Lot</td>
<td>Density greater than 1 dwelling unit per gross acre, but not more than 2 dwelling units per gross acre</td>
<td>R1-35</td>
</tr>
<tr>
<td>Single Family - Suburban</td>
<td>Density greater than 2 dwelling units per gross acre, but not more than 3 dwelling units per gross acre</td>
<td>R1-18</td>
</tr>
<tr>
<td>Single Family - Transitional Lot</td>
<td>Density greater than 3 dwelling units per gross acre, but not more than 5 dwelling units per gross acre</td>
<td>R1-10</td>
</tr>
<tr>
<td>Single Family - Small Lot</td>
<td>Density greater than 5 dwelling units per gross acre, but not more than 8 dwelling units per gross acre</td>
<td>R1-8, R1-7, R1-6</td>
</tr>
<tr>
<td><strong>Residential - Multiple Family</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Family - Low</td>
<td>Density greater than 8 dwelling units per gross acre, but not more than 12 dwelling units per gross acre</td>
<td>Special Use Permit, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Multiple Family - Intermediate</td>
<td>Density greater than 12 dwelling units per gross acre, but not more than 20 dwelling units per gross acre</td>
<td>R-3</td>
</tr>
<tr>
<td>Multiple Family - High</td>
<td>Density greater than 20 dwelling units per gross acre</td>
<td>R-4, R-5</td>
</tr>
<tr>
<td><strong>Residential - Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Home Community</td>
<td>One or more mobile homes on a parcel of land that typically comprises a mobile home park or mobile home subdivision</td>
<td>Special Use Permit, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td><strong>Retail Commercial</strong></td>
<td></td>
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</tr>
<tr>
<td>Rural Retail</td>
<td>Commercial plant nurseries, public riding &amp; boarding stables, feed stores, kennels, and large animal medical clinics</td>
<td>Special Use Permit as applicable, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Convenience Retail</td>
<td>Gas stations, convenience grocery/drug, and other small stand alone stores of similar character; total retail space: 30,000 sq. ft; typical site area: up to 5 acres</td>
<td>C-1</td>
</tr>
<tr>
<td>Neighborhood Retail</td>
<td>Lead tenant single supermarket or specialty retail store along with small-scale secondary stores; total retail space: 30,000 - 150,000 sq. ft (anchor ratio: 30% - 50%); typical site area: up to 15 acres</td>
<td>C-S or C-1 (least intensive zoning district to meet requirements)</td>
</tr>
<tr>
<td>Community Retail</td>
<td>Lead tenant of one or more department, warehouse, or specialty retail stores along with small-scale secondary stores typical of a Power Center; total retail space: 100,000 - 400,000 sq. ft (anchor ratio: 40% - 60%); typical site area: up to 40 acres</td>
<td>C-S</td>
</tr>
<tr>
<td>Regional Retail</td>
<td>Lead tenant of more than one department store along with small-scale secondary stores typical of outlet or enclosed malls; total retail space: 400,000+ sq. ft (anchor ratio: 50% - 70%); typical site area: up to 100 acres</td>
<td>C-S</td>
</tr>
<tr>
<td>Miscellaneous Retail</td>
<td>Stand alone commercial uses that do not meet any other commercial land use category, and are intended to serve local or community needs</td>
<td>Least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Land Use Designation</td>
<td>Designation Description &amp; Characteristics</td>
<td>Appropriate Zoning District</td>
</tr>
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</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
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</tr>
<tr>
<td>Office</td>
<td>Office space for administrative, professional, semi-professional, and support activities where no retail trade is conducted</td>
<td>C-O</td>
</tr>
<tr>
<td>Light Industrial</td>
<td>Warehouse, distribution, and large-scale storage activities as well as manufacturing and assembly of small goods intended for end users. Noise, odor, dust, glare, and other side effects are completely confined within an enclosed building.</td>
<td>IND 1</td>
</tr>
<tr>
<td>Heavy Industrial</td>
<td>Manufacturing, assembly, and fabrication of large goods requiring heavy raw materials; processing and refinement of natural resources.</td>
<td>I-2 OR I-3 based on uses (least intensive zoning district to meet requirements)</td>
</tr>
<tr>
<td>Business Park</td>
<td>Large area specifically designated for office, research, warehouse, and direct support employment uses of similar types that are grouped together and located in close proximity or on the same lot. Uses are developed under a coordinated plan with integrated infrastructure. Residential, general retail, and industrial uses involving assembly, fabrication, and processing are not allowed</td>
<td>C-O</td>
</tr>
<tr>
<td>Industrial Park</td>
<td>Large area specifically designated for either light industrial and support uses or heavy industrial and support uses of similar type, and developed under a coordinated plan with integrated infrastructure. Residential and general retail uses are not allowed.</td>
<td>IND 1, IND 2, or IND 3 (least intensive zoning district to meet requirements)</td>
</tr>
<tr>
<td>Mixed Use Employment</td>
<td>Mix of office, research, warehouse, light industrial, and support employment uses on the same or adjacent parcels. Residential and general retail uses are not allowed.</td>
<td>Least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td><strong>Recreation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Golf</td>
<td>Golf courses and driving ranges</td>
<td>Any (golf course); Special Use Permit (driving range)</td>
</tr>
<tr>
<td>Parks</td>
<td>Active recreation areas improved with play field, exercise, picnic, and general recreation facilities. Sub-categories include mini-parks (¼ mile service area, approximate size 1 acre); neighborhood parks (1 mile service area, approximate size 15 acres); community parks (1-2 mile service area; approximate size 25 acres)</td>
<td>ANY</td>
</tr>
<tr>
<td>Open Space</td>
<td>Unimproved areas specifically designated for preservation in an unaltered, natural state and which only offer passive recreation</td>
<td>ANY</td>
</tr>
<tr>
<td>Resort &amp; Campground</td>
<td>Guest ranch, RV park, campground, resort</td>
<td>Special Use Permit as applicable, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Zoo</td>
<td>Zoo, wildlife preserves, exotic animal farms</td>
<td>Special Use Permit as applicable, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Land Use Designation</td>
<td>Designation Description &amp; Characteristics</td>
<td>Appropriate Zoning District</td>
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<tr>
<td>----------------------</td>
<td>-------------------------------------------</td>
<td>----------------------------</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed Use</td>
<td>Mix of single and multiple family residental, office employment, parks and open space, appropriate community services, and retail commercial uses within the same building, same parcel, and/or same area under a single, integrated plan that emphasizes close proximity and pedestrian orientation.</td>
<td>Least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Public Assembly</td>
<td>Stadiums, arenas, amphitheaters, race tracks, rodeo facilities, auctions and swap meets, amusement parks, convention facilities, amusement parks, miniature golf course, commercial dormitories, and other uses involving large assemblage of people.</td>
<td>Special Use Permit as applicable, or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Community Service</td>
<td>Facilities for government, education, religious worship, cemeteries, social gathering, public safety, residential care, and large-scale medical care which serves the general public.</td>
<td>Special Use Permit as applicable or least intensive zoning district to meet requirements</td>
</tr>
<tr>
<td>Utilities</td>
<td>Electric generating plants, water and wastewater treatment facilities, and associated offices and accessory equipment.</td>
<td>IND 2</td>
</tr>
<tr>
<td>Transportation</td>
<td>Airports, Transit centers, rail yards</td>
<td>Special Use Permit as applicable; IND 2</td>
</tr>
<tr>
<td>Waste Disposal</td>
<td>Landfills, waste transfer and recycling facilities</td>
<td>Special Use Permit as applicable; IND 3</td>
</tr>
<tr>
<td>Storage</td>
<td>Mini-warehouse; storage &amp; impoundments of vehicles, homes, aircraft, &amp; boats; general outdoor storage</td>
<td>C-2 as applicable; special use permit as applicable; I-3 as applicable based on use (least intensive zoning district to meet requirements)</td>
</tr>
<tr>
<td>Proving Grounds</td>
<td>Facilities for testing equipment and products</td>
<td>C-3</td>
</tr>
<tr>
<td>Military Compatible</td>
<td>Applicable only within state statute-defined High Noise or Accident Potential Zones, it includes only those uses determined to be compatible and consistent with the high noise or accident potential of a military airport or ancillary military facility.</td>
<td>Military Airport &amp; Ancillary Military Facility Overlay Zoning District</td>
</tr>
</tbody>
</table>
APPENDIX H - STREET CLASSIFICATIONS

Rural Minor Collector Cross-Section

Rural Major Collector Cross-Section

Rural Minor Arterial Cross-Section

Rural Principal Arterial Cross-Section