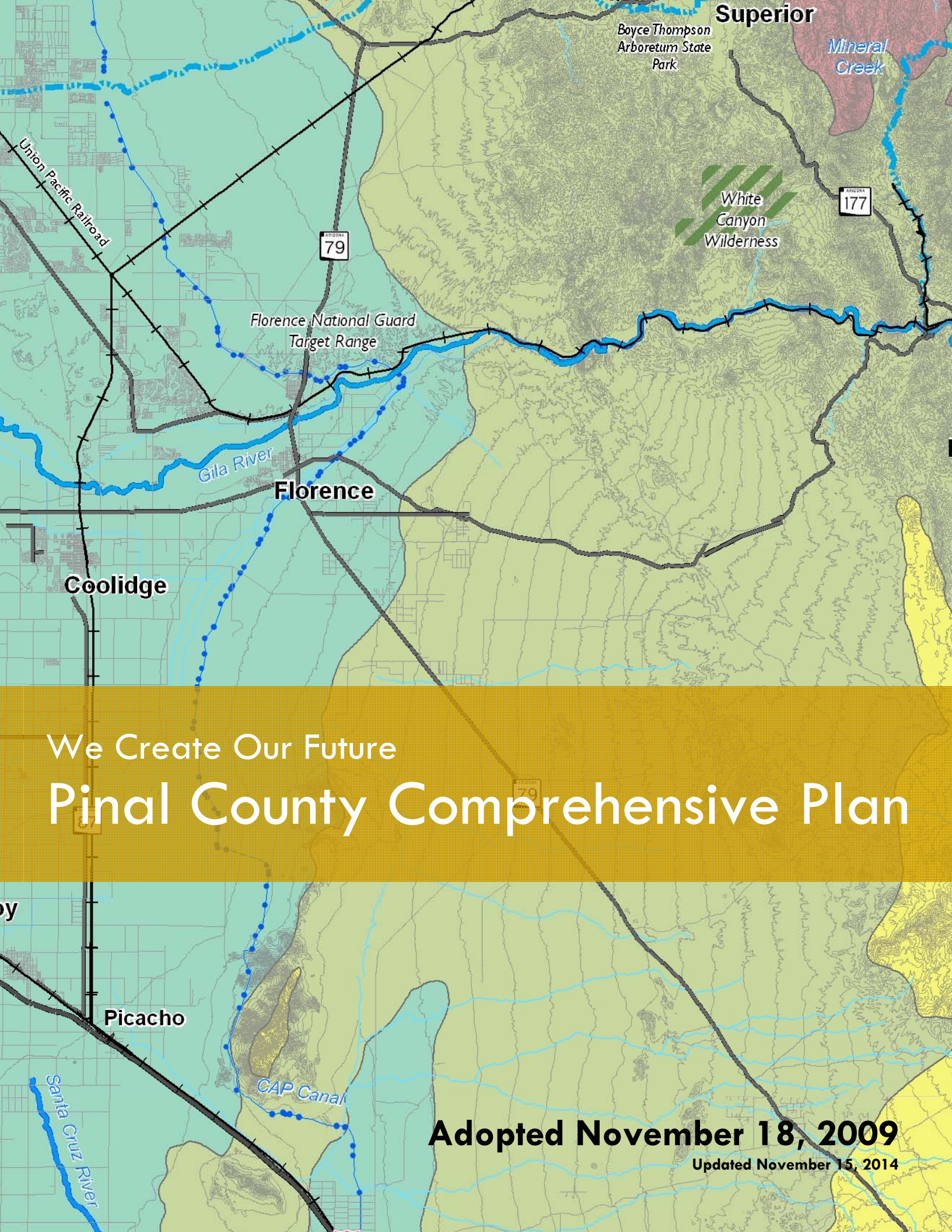

We Create Our Future

Pinal County Comprehensive Plan

Adopted November 18, 2009

Updated November 15, 2014

We Create Our Future

Pinal County Comprehensive Plan

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Citizen Advisory Committee
Comprehensive Plan Advisory Group
Technical Advisory Group
Regional Planning Team
Economic Development Task Force
Transportation Task Force
Conservation and Renewable Energy Working Group
Energy, Generation, and Distribution Working Group

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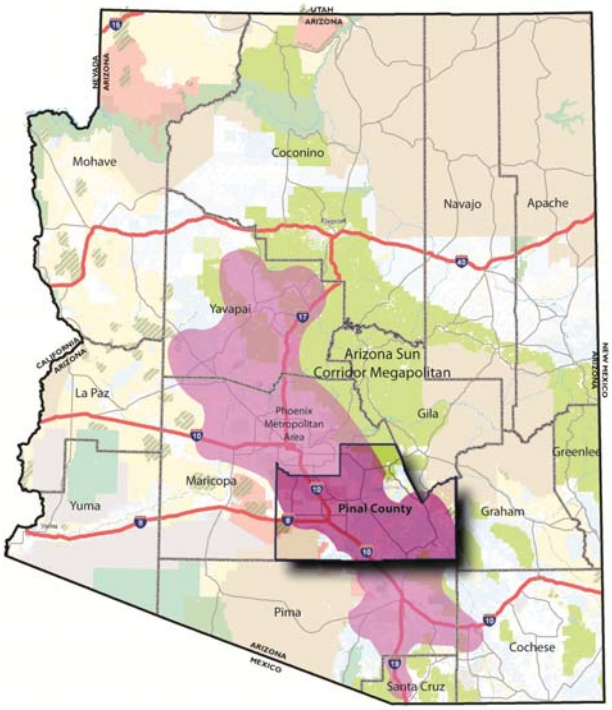
Chapter 1: Introduction

Introduction

Overview

Pinal County is in the heart of the Sun Corridor; one of 20 megapolitan areas identified across the U.S. by demographers as areas where the majority of growth will occur in the future. The Sun Corridor is projected to combine to form one of the 10 "megaregions" where the Metropolitan Institute at Virginia Tech expects that the next 100 million U.S. residents will live. The Sun Corridor Megapolitan region stretches from the Prescott region to the border of Mexico along the central transportation corridor of Arizona. How Pinal County responds to and plans for this projected growth, and how it partners with surrounding governmental entities, will change the course of Pinal County, and perhaps the entire state of Arizona, for generations.



The Pinal County Comprehensive Plan is the landmark document that will serve to steer the County on a positive course of action to manage growth, preserve the quality of life, and promote sustainability. It is a long-term vision that promotes effective economic vitality while ensuring environmental stewardship. The Plan articulates the vision and outlines the strategic direction to position Pinal as a vibrant, healthy, and economically sustainable region within the state of Arizona. The ultimate goal of the Plan is to present "one plan" that reflects a County-wide consensus and a coordinated effort between incorporated cities

and towns, federal, state, regional agencies, public/private service providers and Native American communities.

Pinal County is required by Arizona State Law to prepare and adopt a Comprehensive Plan. According to state law, "The purpose of the plan is to bring about coordinated physical development in accordance with the present and future needs of the county. The comprehensive plan shall be developed so as to conserve the natural resources of the county, to ensure efficient expenditure of public funds, and to promote the health, safety, convenience, and general welfare of the public" (A.R.S. §11-806). Due to the tremendous local and regional growth that has occurred within and around Pinal County, the Board of Supervisors embarked on a Comprehensive Plan update. This Pinal County Comprehensive Plan replaces the Comprehensive Plan adopted in 2001.

Plan's Guiding Principles

- ✓ Widespread public & stakeholder involvement
- ✓ Identification of job centers to improve the jobs-to-population balance
- ✓ Linkage between land use & a multimodal circulation system
- ✓ Preserve unique environment & heritage
- ✓ Focus growth in areas with strategic advantages
- ✓ Manage growth & development while providing direction for decision-making
- ✓ An effective tool to guide and shape Pinal County's future growth

The Comprehensive Plan is not a regulatory document and does not grant entitlements. It is a plan for future growth to assist and guide the Planning and Zoning Commission and the Board of Supervisors in pursuing coordinated, adjusted and harmonious development of the unincorporated area of Pinal County.

The Plan outlines how and where the entire County should grow and develop over time. It recognizes the importance of the current and future role that the Arizona State Trust and Native American lands will play in Pinal County. Close coordination and joint planning efforts are encouraged to ensure achievement of mutual visions. It addresses where open space may be preserved, identifies locations for employment-related uses and residential areas, and designates where commercial or services should be located. The Plan strives to create robust and healthy communities, both physically and fiscally within Pinal County by encouraging orderly development. Through accommodating new growth in areas that can nurture additional development, the Plan encourages resource conservation and

> Growth itself is neither positive nor negative, but the cumulative effects of population growth, its patterns and form have long-term social, environmental, and economic consequences. Smart growth is guiding growth in ways that result in vibrant communities, strong economies, and a healthy environment.
>
> *Arizona Smart Growth Scorecard, 2007*

healthy communities based on well-protected environmental resources and a strong diversified economy.

The principles of smart growth and sustainability provide the overall framework for the Comprehensive Plan. The Plan uses the concept of "buildout" as the foundation. Buildout is defined as the ultimate development of land in Pinal County with appropriate land uses based on a series of assumptions, including land ownership patterns, topographic and environmental constraints and opportunities, development potential, infrastructure support, and private property rights. Buildout does not depend on a benchmark year. However, the Growth Areas element focuses on a ten-year planning horizon in order to identify where and how Pinal County will direct and support development over this shorter-term timeframe.

The Pinal County Comprehensive Plan is just one of the components of *Pinal County's Growth Planning Initiative*. The County has been working diligently to create a comprehensive structure to manage growth and development effectively while enhancing the County's quality of life.

Since 1973, counties in Arizona have been required to develop plans that address land use, circulation, housing, public services and facilities, conservation, rehabilitation, and redevelopment. The County's population determines the specific requirements that must be included in a comprehensive plan. In 1998 and subsequently in 2000, the Legislature passed *Growing Smarter* and *Growing Smarter Plus* legislation that enhanced land use planning statutes in Arizona and expanded requirements. Although Pinal County was officially under the 200,000 population threshold according to the 2000 U.S. Census, the County elected to include additional elements (required for counties with 200,000 or more residents) in the Comprehensive Plan.

Sustainability is a condition of existence which enables the present generation of humans and other species to enjoy social wellbeing, a vibrant economy, and a healthy environment, and to experience fulfillment, beauty, and joy, without compromising the ability of future generations of humans and other species to enjoy the same.

Guy Dauncy
President, British Columbia Sustainable Energy Association;
Consultant to Civano Development, Tucson
(Quote from Morrison Institute for Public Policy, Sustainability for Arizona: The Issue of our Age*)*

Vision Statement Framework

Fundamental to the Plan is the Pinal Vision. The Pinal Vision guides all decisions related to growth, development and preservation (see *Chapter 2: Pinal County Vision*). The Vision components provide the framework for the Comprehensive Plan. They include:

Sense of Community
Mobility and Connectivity
Economic Sustainability
Open Spaces and Places
Environmental Stewardship
Healthy, Happy Residents
Quality Educational Opportunities

The Pinal County Comprehensive Plan uses the seven vision components to organize the various Plan elements:

Sense of Community
Land Use
Growth Areas
Cultural Resources

Mobility and Connectivity
Multimodal Circulation

Economic Sustainability
Economic Development

Open Spaces and Places
Open Spaces and Places

Environmental Stewardship
Environmental Planning

Water Resources
Energy

Healthy, Happy Residents
Housing
Cost of Development

Quality Educational Opportunities
Education

Plan Elements

The Plan's elements address goals, objectives, and policies as well as planning guidelines to manage future growth and development.

Land Use identifies the land use framework for future development within Pinal County. It is intended to provide a balance between residential, commercial, and employment uses that support live, work, educate, and play opportunities. One major part of this element is the Land Use Plan which generally depicts the locations of each major land use. Descriptions of each land use provide guidance to property owners for development.

Growth Areas identifies areas where Pinal County will focus its efforts on planning for new development and infrastructure over the next 10 years.

Cultural Resources addresses the unique historical places in Pinal County and outlines how these areas can be preserved for generations to come.

Multimodal Circulation strives to provide a safe and efficient transportation system. This is critical to the quality of life and economic development in Pinal County. The transportation system is

woven through the Comprehensive Plan in that it impacts or is impacted by each individual element. The Plan presents an integrated transportation system that will support Pinal County's multimodal approach. These modes include vehicular travel and transit options, including commuter and local systems of rail, pedestrian, and bicycle routes. Taking a balanced approach with a focus on safety, integration, and congestion reduction, Pinal County strives for a premier multimodal transportation system.

Economic Development will assist Pinal County in developing as a major regional employment center by offering diverse business opportunities that expand the local economy and allow residents to have quality employment close to where they live. To achieve economic sustainability, a focused, strategic effort is required to diversify the local economy and recruit more quality employers to Pinal County, ensuring residents can live and work within their community should they choose. Economic development raises the standard of living for people, creates employment opportunities, and increases quality of life by combining business, government, and the community's desires into an integrated plan.

Open Spaces and Places reflect the *Pinal County Open Space and Trails Master Plan* which was adopted by Pinal County in October, 2007. Throughout the process, residents reinforced the importance of preserving open space, providing access to trails, and creating more recreational opportunities.

Environmental Planning strives to protect the distinctive natural environment within Pinal County and is integral in maintaining the County's quality of life. Through effective environmental planning, Pinal County desires to provide sincere stewardship of the natural environment as it strives to direct growth and supply quality services. This unique approach provides the County's blueprint for managing and protecting the environment as well as conserving resources for future generations to enjoy. Distinctive natural

resources such as land, air, animal (fauna) and plant (flora) habitats, and water are integral to the County's long-term sustainability.

Water Resources focuses on availability of existing and future water supplies to meet the growing need for water. Currently, the County relies heavily on groundwater for its supply, but a long-range water resource planning process will identify other potential water solutions.

Energy focuses on how Pinal County will provide a broad portfolio of energy resources to support future land use patterns and also addresses energy conservation. It is especially important to efficiently use and conserve energy sources and seek renewable sources so that future generations will not unnecessarily suffer from its shortage or absence.

Housing builds upon the recently completed *Pinal County Affordable Housing Plan*. This element is intended to reflect the Affordable Housing Plan and to develop housing policies to support the Comprehensive Plan.

Cost of Development identifies the various mechanisms allowed by law that can be used to fund and finance additional public services necessary to serve development, such as bonding, special taxing districts, development fees, in-lieu fees, facility construction, dedications, and service privatization. It also identifies policies that might lead to new ways to pay for services.

Education focuses on the importance of providing access to diverse types of education. Quality education is critical to the County's economic development as well as quality of life.

Implementation outlines specific steps on how the Plan will be kept up-to-date. Zoning and subdivision regulations are tools for implementing the Plan.

The Pinal County Planning and Development Department will maintain a Strategic Implementation Plan that includes specific action strategies that the County will take to implement the Plan. The intent is to serve as the work program for implementation.

The format within each chapter generally includes:

Introduction
- Purpose
- How it relates to Pinal County's Vision
- Why addressing this element is important to Pinal County's future

Strategic Areas
- Issues that the element will address

Element Plan
- Discusses how the element addresses the strategic areas

Goals, Objectives, and Policies
- Generally answers the question "What are our desired outcomes?" and "How will results be achieved?"

Definitions

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public Responsibilities, but should use the Private and Public Shared Responsibilities in their applications for Comprehensive Plan amendments, rezoning, subdivisions, site plan review, etc.

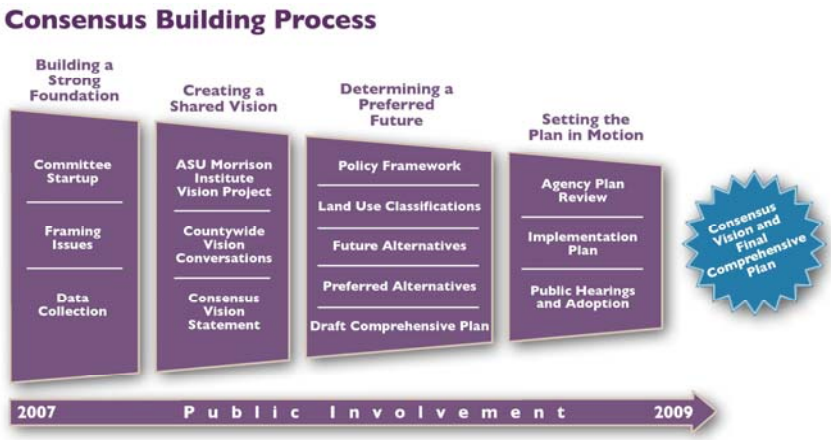
Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

Goals represent the desired outcomes or results that the County hopes to realize over time. Goals will align with Pinal County's Vision.

Objectives are broad statements of intent to implement the goals and provide framework for the policies.

Policies address how the goals will be achieved. Policies should be read as if it is preceded by the words "It is the County's general policy to…"



A classic example often mentioned is the perceived "conflict" between environmental preservation policies and economic development promotion. Because Plan policies do not exist in isolation, and must be viewed in the context of all potentially relevant policies, it is largely in the application of these policies that the interests which they embody are reconciled and balanced by the decision-making body.

Planning Guidelines are intended to provide direction and guidance to potential landowners, developers, staff and elected or appointed officials in developing or reviewing a project. Planning guidelines can be found throughout the Comprehensive Plan.

Community-Driven Plan

This Plan is a result of a comprehensive public and stakeholder engagement process. Nearly 2,000 people participated in the 46 events held throughout the process and over 100 people participated on work groups or task forces that contributed to various aspects throughout the project. Additionally, hundreds of hours of presentations were made and meetings attended with stakeholders, landowners, cities and towns, Native American communities, development interests, and other governmental entities and organizations.

From the outset of the planning process, the discussion focused on what was most important to Pinal County residents, analysis of past County decisions, exploring potential opportunities, weighing priorities, and making choices about Pinal County's future. A fundamental goal of the engagement process was education. Extensive efforts were made to provide participants the necessary information to provide educated input at every step in the Plan

development process. Summary reports of all events were developed and made available on the project Web site. Numerous communication tools were utilized throughout the process to keep interested citizens and stakeholders informed.

The Process

In addition to the comprehensive engagement process, development of the Plan was based on state-of-the-art technical analysis and innovative planning. The best thinking about sustainability, economic development, urban development, preservation, energy, multimodal transportation, housing, resource planning, and other disciplines were incorporated into the Plan.

Some unique aspects of the process include:

The Future at Pinal: Making Choices/Making Places The Pinal County Board of Supervisors commissioned this report from The Morrison Institute for Public Policy (School of Public Affairs, Arizona State University). It kicked off the long-term visioning, communication and planning process among residents, elected officials, business leaders, and community activists resulting in the Pinal County Comprehensive Plan Update. *The Future at Pinal* provided information and ideas that inspired creative thinking about the County's future. The project included interviews with more than 50 public and private sector leaders, a public opinion survey, research on comparable counties and lessons from Maricopa and Pima counties, and compilation of demographic development and historical data.

Pinal County Comprehensive Plan: Compendium of Existing Conditions In order to develop a county-wide vision and subsequent scenarios, a thorough understanding of Pinal County was needed. The C*ompendium* was compiled in May 2007 to

A **compendium** is a concise, yet comprehensive, compilation of a body of knowledge.

understand Pinal's opportunities and constraints and can be obtained by contacting the Pinal County Planning and Development Department. The C*ompendium* contains data on existing social, environmental, physical, and economic characteristics that impact the County.

Best Practices Early in the Comprehensive Plan project, a peer county analysis was conducted. To identify potential peer counties, the following criteria had to be met: experienced rapid growth over the past 20 years, impacted by one or more rapidly growing metropolitan areas, contained an urban/agricultural/open space interface, faced preservation issues, and experienced commuting or 'bedroom community' issues. Three such counties were identified: Polk County, Florida; Cobb County, Georgia; and Arapahoe County, Colorado.

After interviewing long-time planners and professionals from these three counties, the following list of key *lessons learned* emerged:

1. Should have developed dedicated funding for infrastructure and roads
2. County and municipalities should have worked better together
3. Should have developed transportation options such as transit, light rail
4. Better job of uniting citizens behind a common vision for the future – unify rural and urban
5. Should have had planning tools in place earlier
6. Long range planning should have been more embedded to withstand political change

Visioning The Vision Statement is the foundation upon which the Plan is built. The Pinal County Vision was created, evaluated, fine-tuned, and finalized through a comprehensive input process. The Vision reflects County-wide values and represents a consensus of

what is most important to residents and stakeholders. Residents discussed ideas presented in *The Future at Pinal* during nine Road Shows. Participants brainstormed possible vision components during Visioning Workshops, meetings-in-a-box, feedback submitted online, and other venues.

Youth Because the young people of the County will inherit the results of planning decisions made today, involving youth in the plan development process was critical. The Pinal County Comprehensive Plan process included an extensive outreach effort to youth. In December 2007, eight youth Design Charrettes were held in classrooms across Pinal County giving voice to more than 200 students. A summary report was created that summarized the results of their land use and transportation plans, as well as the students' hopes and dreams for Pinal County. Additionally, students at Arizona State University and University of Arizona provided input to the comprehensive planning process through class projects.

Development Suitability To create a framework for formulating scenarios, development suitability within Pinal County was analyzed. Using Geographic Information Systems (GIS) map layers (such as environmental constraints, land ownership, roadways, and existing land use), the team was able to identify areas for potential development.

Scenario Development and Analysis A comprehensive scenario development and analysis process was utilized to create the Plan Land Use, Economic Development, and Circulation maps. Using the Compendium and the Vision Statement, 27 conceptual land use and circulation plans were developed during Design Charrettes that were held throughout Pinal County. These plans coupled with the youth input resulted in seven Framework Plans. These plans were analyzed and discussed with the Comprehensive Plan committees and evolved into the three alternatives that were discussed and debated publicly.

A **design charrette** is a workshop in which participants work together, collaborating or building off of others work, and present their findings in a public forum.

27 Charrette Plans (Youth & Adult) → 7 Framework Plans → 3 Alternative Approaches

Scenario Visualization To discuss and fine-tune the initial land use alternatives before taking them to the public, the consultant team, Pinal County staff, Comprehensive Plan Advisory Group, Governor's Office, Arizona Department of Commerce representatives, and representatives from local economic development organizations participated in a half-day event at the Arizona State University Decision Theater. The Decision Theater provided the team the opportunity to visualize, discuss, and fine-tune the three alternative approaches.

The three alternatives developed were: *Trends, Dispersed Growth*, and *Corridor Focused*. The *Trends* Alternative depicted the continuation of current residential and commercial development patterns in Pinal County, which, if sustained, were determined to not fulfill the tenets of the Pinal County vision.

Dispersed Growth and *Corridor Focused* were the two remaining alternatives that addressed the vision in two different ways. Dispersed growth allowed nodal development, placing low-, mid- and high-density activity centers across the County. Corridor Focused concentrated the majority of the activity centers in central Pinal County while preserving some of East County's rural character. Pinal County residents preferred a concentrated development pattern in Pinal County's central core, along with some economic activity centers in the eastern portions of the County to promote economic sustainability. The favored philosophy allowed higher density in some portions of the County if it provides the opportunity for preservation of larger swaths of open space in other areas providing a more sustainable development pattern and efficient use of resources. Lastly, participants clearly indicated a desire to have transit opportunities that connect communities in Pinal County and allow residents to get to the Phoenix and Tucson metropolitan areas.

Citizens and stakeholders were then asked to provide input regarding land use, open space, and transportation in Pinal County, as well as their opinions on several potential features including a new commercial airport, expanded tourism, and commuter rail. This input along with further technical analysis assisted in creating a draft preferred alternative that was presented, discussed, and evaluated through a comprehensive public process.

Using the Comprehensive Plan

The Comprehensive Plan provides a guide, while providing for annual changes, for decision-making concerning growth and development for staff, Planning and Zoning Commission and the Board of Supervisors and delineates existing and proposed land uses for the public and landowners/developers. In the course of recommendations and decision-making, staff, Planning and Zoning Commission and the Board of Supervisors will apply the Plan's Vision and policies to review and approve specific projects. Following are questions that should be asked when using the Comprehensive Plan to make development decisions.

- Is the proposed project compatible with the overall Pinal County Vision?
- Is the proposed project generally consistent with the goals and policies of the Comprehensive Plan?
- What are the cumulative impacts or benefits of the project or proposal on the County (e.g., infrastructure costs, increased traffic, and emergency services impacts)?

The Comprehensive Plan is used by staff to review and determine compatibility of projects and applications. Additionally, the Plan provides guidance in developing annual work programs and budgets. Some of the questions asked by staff include:

- Is the proposed project consistent with the Land Use Plan map and location criteria?
- How does the proposed project address the Comprehensive Plan's policies?
- What is the relationship of the project to surrounding land uses?
- Are there changes that should be made to the text, policies, or maps? These changes might be the result of new information or ideas coming to light or of a recognized need for adjustments to be made.

Another group of users of the Comprehensive Plan consists of developers and landowners considering land development. They may turn to the Plan to gain an understanding of the County's vision and policies, specifics related to an individual piece of property, or how a desired project might be compatible with the Plan. Questions asked by these users include:

- Is my desired project consistent with the Plan? If not, is my request compatible with Pinal County's Vision and/or the overall good for the County?
- How does my project address the Comprehensive Plan's policies?
- How does my project relate to surrounding land uses?
- How will basic infrastructure be provided to support my project?
- Has my project considered the value of conservation and open space preservation?

The Vision anchoring the Comprehensive Plan was based on significant input from the public and stakeholders. The general public may use the Plan to answer the following questions.

- What can I expect regarding growth and development in Pinal County?
- How will decisions be made as projects are proposed over time?
- How will the County's quality of life be enhanced or impacted over time?

Federal, state and regional agencies, incorporated cities and towns, non-profit entities, and potential new businesses looking to locate in the area are just some of the groups that may use the Plan. The Comprehensive Plan represents the vision, growth projections and the varied aspects of how the County intends to evolve.

The intent of the Plan is to be a user-friendly, working document that provides direction related to growth, development, redevelopment, preservation, and investment.

Comprehensive Plan Compliance is determined by a project's conformity with the Plan's land use designations, graphic depictions, and activity centers as well as the vision, goals, objectives, policies, and planning guidelines outlined in the Comprehensive Plan. A Comprehensive Plan Compliance Checklist is included in *Appendix A* that can provide guidance in determining Plan compliance. Not all components and concepts may apply to every potential proposal.

The Compliance Checklist addresses the Comprehensive Plan compatibility in two parts:

Part One – Vision Components
Purpose: Consistency with Pinal's vision components.

- Sense of Community
- Mobility and Connectivity

- Economic Sustainability
- Open Spaces and Places
- Environmental Stewardship
- Healthy, Happy Residents
- Quality Educational Opportunities

Part Two – Key Concepts
Purpose: Evaluate consistency with the Plan's key concepts illustrated on the Plan's maps and discussed in text.

- Consistency with the Land Use designations
- Consistency with the Mixed Use Activity Center concept
- Consistency with the Planning Guidelines described in the Land Use element
- Quality Employment Opportunities County-wide
- Viable Agricultural, Equestrian and Rural Lifestyle
- System of Connected Trails and Preservation of Open Space
- Natural and Cultural Resource Conservation
- Water Resources, Public Facilities/Services and Infrastructure Support

The Compliance Checklist is intended to provide direction to developers and landowners to determine whether zoning amendments or development projects are consistent with the Pinal County Comprehensive Plan. The Checklist will also assist County staff, appointed officials, and the Board of Supervisors in the decision-making process.

Relationship Between Existing Zoning and the Comprehensive Plan

There are parcels located throughout Pinal County that have existing zoning. One of the major concerns of these property owners is how the amended Comprehensive Plan will impact their properties. People who have zoning approval have the right to use that zoning. If the amended Comprehensive Plan has new goals for items such as increased rights of way, the changes in the Comprehensive Plan do not force the property owner to contribute that right of way.

If the property owner wants to change zoning categories, then staff will seek to implement this Comprehensive Plan. If a Planned Area Development (PAD) is proposed to rezone a portion of a community, staff will seek to implement this Comprehensive Plan for the area proposed for rezoning. Owners of PADs will not be forced to change the zoning for the entire PAD if they are seeking to change the zoning for a portion of the PAD.

If the Multimodal Circulation Element of this Comprehensive Plan or if Regionally Significant Routes for Safety and Mobility (RSRSM) Access Management Manual standards impact existing PADs, the owners of those PADs will be allowed to adjust their PADs to address those specific impacts without needing to amend the Comprehensive Plan. These adjustments will need to be done through a zoning and PAD amendment. These adjustments are meant to be interior boundary adjustments of the various zone classifications existing in the PAD. The adjustments are not meant to increase the size of any zoning classification or add a new zone classification or increase the density. Amendment criteria for PADs are located in the Zoning Ordinance.

If the Multimodal Circulation Element of this Comprehensive Plan or if RSRSM Access Management Manual standards impact approved PADs that exist at the time of the effective date of this Comprehensive Plan by specifying wider or new rights of way that were not shown or stipulated to in approved PADs, the County's goal is to work with the owners of existing PADs to maintain the number of dwelling units approved in existing PADs in exchange for preservation by owners of wider or new rights of way at no cost to the County.

If the Multimodal Circulation Element of this Comprehensive Plan or if RSRSM Access Management Manual standards impact approved PADs that exist at the time of the effective date of this Comprehensive Plan by specifying street locations that were not shown or stipulated to in approved PADs, the County will allow the owners of those PADs to process any needed amendments to the Land Use Plan of the Comprehensive Plan to meet those standards as non-major amendments.

Area Plans

The following area, community, village, neighborhood and special area plans are being readopted and incorporated into this Comprehensive Plan by reference:

PZ-373-73 Lago del Oro 9/17/73
PZ-C-14-86 Los Cordones 10/27/86
PZ-C-07-87 Los Cordones 9/14/87
PZ-C-02-90 Sierra Tucson 1/14/91
PZ-C-03-87 Oracle 5/16/88
PZ-C-07-90 Space Biosphere Ventures 8/19/91
PZ-C-12-87 Falcon Valley 1/11/88
PZ-C-71-85 Red Rock 8/26/85 and La Osa 8/26/85
PZ-C-11-88 City of Mesa Water Farm 11/16/88

Relationship to Municipal and Native American Communities

The Pinal County Comprehensive Plan coordinated and included all of the municipalities and encouraged involvement by all Native America communities. These entities were asked to provide their most up-to-date information for inclusion in the Comprehensive Plan. Not all entities participated, so the Plan attempts to represent those areas in order for the County to address County-wide planning issues. The Pinal County Comprehensive Plan does not have jurisdiction within incorporated cities and towns or within sovereign Native American communities. However, the Land Use Plan map attempts to illustrate the generalized future land uses (as of 2008) for incorporated cities and towns (based on available information provided) for planning purposes to ensure land use compatibility County-wide. Anyone who is interested in planning and development issues for cities and towns in Pinal County should consult the General Plans of those cities and towns. Due to its sovereign nation status, the Comprehensive Plan does not reflect specific land uses within Native American communities.

Relationship to Other Documents

The Plan is the long-range policy document that serves as a "blueprint" for growth, development, and preservation in Pinal County. There are other documents that guide implementation of the Plan including the Pinal County zoning ordinance, subdivision regulations, zoning map, capital improvement plans, and specific area plans. The planning goals, objectives, policies and map of the *2007 Open Space and Trails Master Plan* were included in the open space element adopted as an amendment to the 2001

Comprehensive Plan. The adopted General Plans for the cities and towns as well as the Native American communities' plans should be referred to for specific direction within their jurisdictional boundaries. Additionally, this project involved the efforts of public and private stakeholders, federal, state, local, and regional agencies, as well as other private organizations. As the Plan is implemented, this coordination will continue.

Private Property Rights and the Plan

According to Central Arizona Association of Governments in 2008, over 530,000 un-built dwelling units had been zoned in the County. If these dwelling units were built at the level of existing entitlements, approximately 1.325 million additional people will call Pinal County home and over half of those will be located in unincorporated Pinal County. Experience from the Phoenix Metropolitan Area indicates that development usually is not built to the full extent of entitlements. For planning purposes, however, it is important to recognize the implications of decisions already made.

The Pinal County Comprehensive Plan does not change zone classifications or planned area development overlay districts that exist on private property at the time of the effective date of this Plan.

The primary concern must be "fair resolution" of conflicting interests. All institutions—political, social, economic, environmental and educational—must work together to address their varied interests, values, and desires and to identify the goals, objectives, and policies needed for quality growth and development in the County. These broad stated goals are the foundation on which land use policies and proposals have been constructed to address differing individual interests and to integrate them County-wide through implementation of the Comprehensive Plan.

Implementing and Amending the Plan

The Comprehensive Plan is intended to be a dynamic document that must be periodically updated in response to changing regional needs and new adopted plans and studies by various agencies. An annual review is suggested to keep the Plan relevant. Requests for amendments may be submitted by individuals or initiated by the County according to adopted procedures. *Chapter 10: Implementation* includes the definition for Major and Non-Major Amendments. The Chapter also outlines the specific steps to updating the plan. While many amendments propose a change in land use designation for a particular property, compatibility with the policies and Plan text should be consistent. Therefore, all amendments will be reviewed to determine general consistency with Plan elements.

Chapter 2:
Pinal County Vision

Pinal County Vision

Pinal County Values

To use the human body as an analogy, if *land use* is the skeleton that holds everything together and *circulation* is the system that keeps Pinal County moving, then *Pinal County's Vision* is the heart that ensures the County's quality of life is maintained over time.

Pinal residents emphasized they value:

- Open space
- Rural atmosphere and environment
- Natural beauty
- History and heritage
- Night sky and clean air
- Diversity

Pinal residents also emphasized they do **not** want to lose:

- Open space
- Diversity
- Sense of community
- Agriculture
- Uniqueness
- Clean air, water, environment
- Water resources
- Wildlife

Pinal County Vision

Pinal County recognizes the importance of the region's strategic location between Phoenix and Tucson, and its relationship to the overall well-being of the State of Arizona. The decisions made here will impact the entire state on many levels: business development, mobility, land management, air quality, water and overall quality of life. People choose Pinal County for the diverse opportunities it offers; this diversity is what makes the County unique but also represents a challenge as the region continues to grow and change.

Pinal County is a place where history, culture, and heritage are the foundation for a bright future. Pinal County will be seen as a leader in environmental stewardship and conservation practices by ensuring that the natural environment is preserved, yet still available to be discovered. Pinal County provides quality educational and training opportunities placing residents in cutting edge, environmentally-compatible jobs within the County. While communities within Pinal County retain and celebrate their unique qualities, governments and agencies share a collaborative spirit to ensure successes across Pinal County and remain responsive and accountable to their constituents.

Sense of Community—Pinal County is a collection of unique communities, each of which has something special to offer residents and visitors. Balancing emerging urban centers and Pinal County's rural character is important to residents; ensuring that the threads of Pinal County's history, heritage, and culture are woven into its future is what makes Pinal County unique from other regions. Ensuring that places exist for people to gather and for communities to showcase the diversity of places, people, lifestyles, cultures, and opportunities will help to define Pinal County's identity.

Mobility and Connectivity—Ensuring that Pinal County has adequate transportation corridors and a variety of multimodal

transportation options addressing all populations is essential for moving goods and people throughout the County and State with minimal affect on Pinal County's native wildlife. Offering multiple mobility and communication options to effectively connect communities and activity centers throughout the County will reduce congestion and improve air quality while enhancing the area's quality of life.

Economic Sustainability—Expanding opportunities for residents to live, work, learn, and play in close proximity in all parts of Pinal County promotes long-term economic viability. Pinal County desires activity centers that serve current and future residents' needs offering higher-density housing, services, businesses and employment opportunities, including high-tech and environmentally-friendly employers who champion Pinal County's conservation philosophy. The creation of a full range of quality jobs that allow residents to start their career, raise a family, and move up instead of out of Pinal County for career advancement is essential.

Open Spaces and Places—Residents value the large connected open spaces and unique places of Pinal County, not only as part of their quality of life, but as an important resource to sustain the region's immense wildlife habitat and corridors. From the majestic mountains rising from the desert floor in the west to the high desert and rugged mountain terrain to the east, enjoyment of and respect for the natural surroundings is a big part of why people choose to live and visit Pinal County.

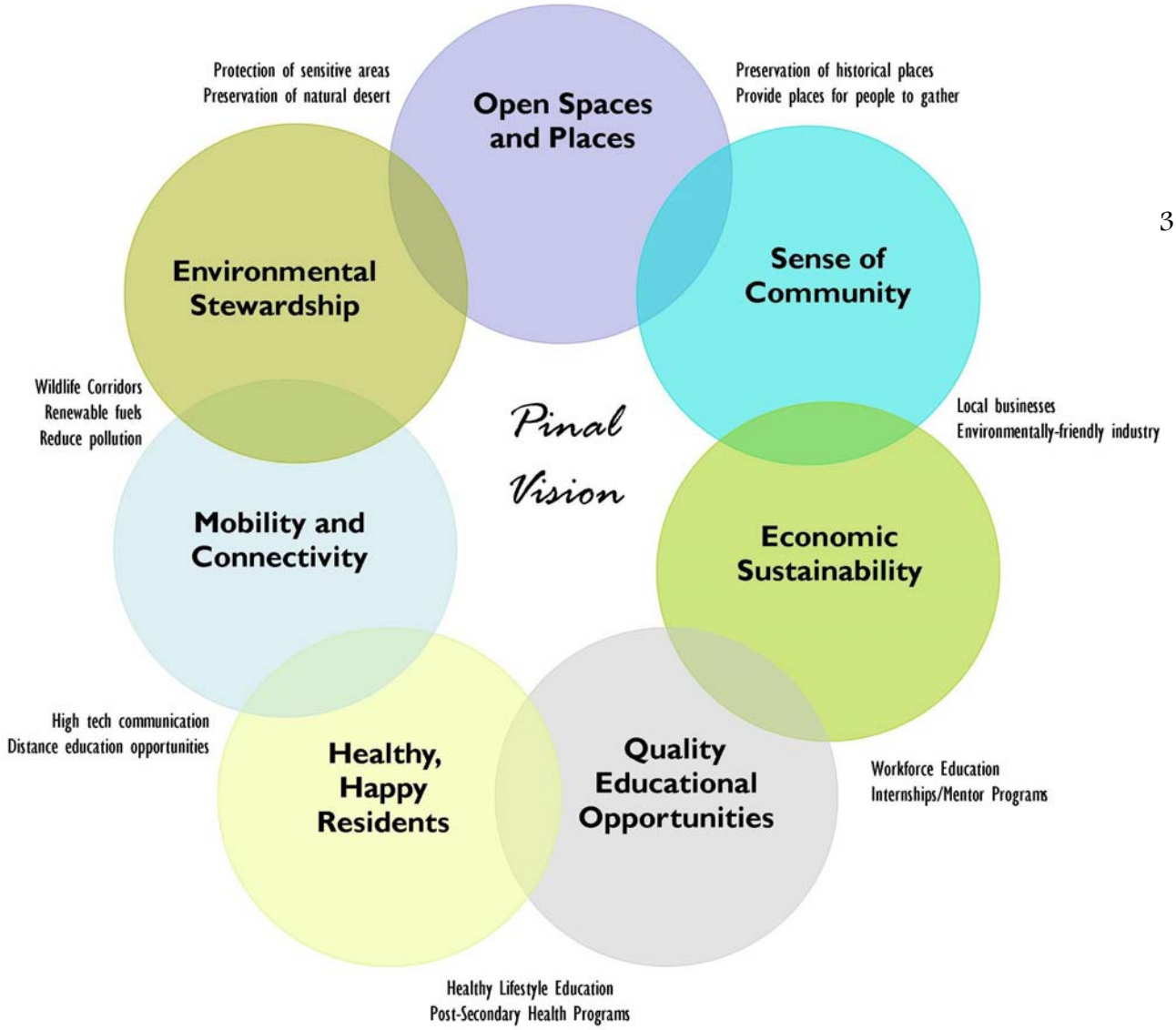
Environmental Stewardship—People value the views of the mountains and open vistas during the day and the stars at night. These values have translated to a strong conservation ethic that stresses the importance of maintaining the quality of Pinal County's natural resources for future generations. Pinal County is the leader in environmental stewardship and rewards and encourages sustainable practices such as innovative land use planning,

sustainable agriculture, water conservation, green building development, and the use of renewable and alternative energy sources.

Healthy, Happy Residents—Access to quality healthcare and healthy lifestyle choices is a priority. Pinal is a healthy, safe place where residents can walk or ride to activity centers and where interaction in the clean, natural environment is encouraged. Ensuring that residents are healthy, safe, and happy in their community is a priority for Pinal County.

Quality Educational Opportunities—Quality, community-based pre K-12 programs that provide youth with a competitive edge along with a wide variety of post-secondary educational opportunities and technical or specialized workforce training are necessities. Pinal County residents seek out lifelong opportunities that help to expand their minds and diversify their experiences.

It's All Related The graphic below demonstrates the important relationship between the seven themes and provides some examples of the overlap in goals.

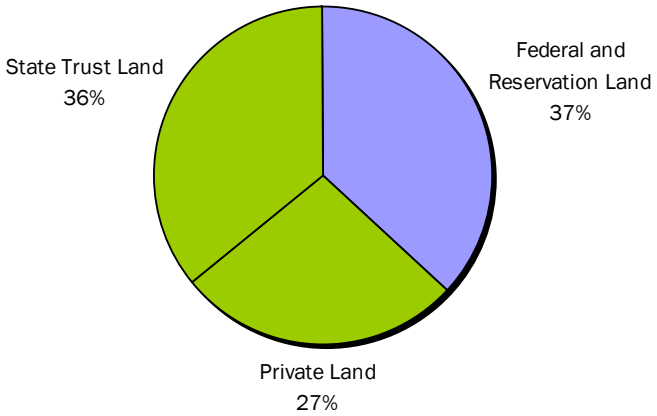


Chapter 3:
Sense of Community

Land Use

Introduction

3-1: Land Ownership



Source: Arizona Land Resrouce Information System (ALRIS), 2006

Pinal County is one of the largest counties in Arizona at 5,386 square miles, which is larger than the state of Connecticut (4,845 square miles). Like most of Arizona, the County has and continues to experience tremendous growth. The rapid growth over the past two decades has been attributed to abundant, low-cost, developable land and relatively inexpensive commutes into employment centers in the Phoenix and Tucson metropolitan areas. Pinal County has experienced a reduction of agricultural activities due to increasing costs, federal regulations, development encroachment, and the changing global market. At the same time, Native American communities are diversifying their economies and increasing the number of acres in agricultural production.

The County's land use patterns have been shaped by physical factors such as mountains and foothills, the San Pedro, Santa Cruz, and Gila Rivers, National Monuments such as the Sonoran Desert and Ironwood Forest, sensitive land areas such as Aravaipa Canyon Wilderness and Superstition Mountains, and state parks such as the Picacho Peak State Park. Ownership patterns have also shaped and will continue to shape land use within Pinal County.

Pinal County is a mosaic of public and private land ownership (figure 3-1), with the County having planning authority over privately-owned land. Arizona state trust lands represent $^{2}/_{3}$ of

3-2: Land Acreage by Category

Land Category	Percent Total
State Trust Lands	36%
Private Lands	27%
Indian Communities	21%
U.S. Bureau of Land Management	8%
U.S. Forest Service	7%
U.S. Bureau of Reclamation	1%
National Park Service	<1%
Military	<1%
Total	**100%**

Source: Arizona Land Resource Information System (ALRIS), 2006

available developable land in Pinal County (figure 3-2). Arizona State Land Department (ASLD) manages state trust land on behalf of the 14 beneficiaries of the trust. These lands may eventually transfer to private interests, through sale or lease, for residential, commercial, or employment development, or for agricultural or natural resource extraction uses. State land parcels with high scenic or habitat attributes may be designated or otherwise preserved for conservation pursuant to applicable State laws. Federal lands, such as those managed by the Bureau of Land Management (BLM), Bureau of Reclamation (BOR), and U.S. Forest Service (USFS) may also be transferred to private ownership.

Many of the dwelling units built over the past decade in Pinal County have been in unincorporated areas of the County. This is a very different land use pattern than in neighboring Maricopa and Pima counties. Typically, the majority of suburban or urban development occurs in municipalities. Large master planned developments, such as Johnson Ranch and SaddleBrooke, have changed development patterns in parts of the County.

Eleven municipalities in Pinal County have planning authority within their incorporated areas: the Town of Florence, Town of Kearny, Town of Mammoth, Town of Queen Creek, Town of Superior, Town of Winkelman, City of Apache Junction, City of Casa Grande, City of Coolidge, City of Eloy, and City of Maricopa. All municipalities within Pinal County have municipal planning areas (MPA). The

Municipal Planning Areas (MPAs) are defined as the geographic areas around an incorporated city or town that is influenced by the city's land use pattern and may be incorporated into the jurisdiction at some point in the future.

majority of urban development in Pinal County will likely occur in or near these MPAs. Pinal County has planning and zoning authority over all unincorporated areas, including the communities of Arizona City, Dudleyville, Gold Canyon, Picacho, Oracle, Red Rock, Stanfield and San Manuel.

In addition to the municipalities and unincorporated areas, all or parts of four Native American communities are located in Pinal County: Ak-Chin Indian Community, Gila River Indian Community, San Carlos Apache Indian Reservation, and Tohono O'odham Nation. Native American communities are considered sovereign nations and operate under their own tribal governmental system. Development can occur on these lands with tribal approval.

Purpose The Land Use Plan is more than just a map. The goals, objectives, policies and planning guidelines augment the visual aspects of the maps. The text and maps must be used together when making decisions about future development or redevelopment. This approach provides flexibility to create innovative development projects that align with Pinal County's vision and policies while achieving important goals and objectives, such as sustainable development, economic diversification, County-wide open space preservation and energy efficiency.

A.R.S. 11-821 (C1) states that "the land use plan shall include:

(a) A statement of the standards of population density and building intensity recommended for the various land use categories covered by the plan.

(b) Specific programs and policies that the county may use to promote compact form development activity and locations where those development patterns should be encouraged.

(c) Consideration of air quality and access to incident solar energy for all general categories of land use.

(d) Policies that address maintaining a broad variety of land uses including the range of uses existing in the county at the time the plan is adopted, readopted or amended."

Relationship to Pinal County's Vision Land use impacts all of the Vision components. Ensuring appropriate land use compatibility directly affects existing residents, visitors, and businesses as well as future generations. The Vision is intended to protect those Pinal County attributes that are most important to residents.

Strategic Areas

Flexibility to Respond to Market Changes

The Land Use Plan is not intended to "predetermine" all land uses on individual parcels. The Land Use Plan provides support for the market by helping determine the appropriate uses and types of development in accordance with the Comprehensive Plan's policies and guidelines, and aligning potential development with Pinal County's Vision.

Sustainability

"… a sustainable community is one that meets its needs by using its resources efficiently while ensuring that adequate resources will be available for future generations."

The term "sustainability" in Pinal County is not a static concept or one that means the same thing in every community. Rather, it is how the community continually changes and adjusts to meet the needs of its current and future residents while preserving the environment. Simply put, a sustainable community is one that meets its needs by using its resources efficiently while ensuring that adequate resources will be available for future generations. Pinal County's commitment to sustainability is supported by the Comprehensive Plan and embodied in the Vision.

The County of Choice

People flocked to Pinal County between 2000 and 2007 because they could afford a larger home at a lower price, with the trade-off that they may have to travel substantial distances for employment, services and entertainment. The rural lifestyle and open spaces was a major draw for new residents.

Over time, traffic and commute times have increased. People are thinking long and hard about what is referred to as the "time tax." Volatility of fuel costs have exacerbated the difficulties of commuting to remote residential developments.

The Plan strives to position the region as the "County of choice". Pinal County will continue to improve its livability by attracting quality jobs, a full range of housing in quality neighborhoods, educational and job training opportunities, and services for a multi-generational population. The Morrison Institute Report, *The Future at Pinal,* challenged Pinal County to choose becoming a "McMega Drive Through" or a "Distinguishable Destination;" the Pinal County Comprehensive Plan strives to implement the latter.

Time Tax is the price paid sitting in long commutes that cuts into what we value most – our time with family, friends, home, and community.

Agriculture and Equestrian Heritage

Farming and horses have historically been a valued part of Pinal County's heritage. Thousands of acres are still in agricultural production today. However, Pinal County is experiencing a transition from tractors to tricycles at a rapid rate as farmland is sold for residential development. This transition is occurring for a variety of reasons that include desirability of living in Pinal County and the relatively few housing choices that have existed in this area, the cost of water, global competition, and increasing land values. However, many still choose to live in Pinal County because of the agricultural and equestrian heritage.

The Comprehensive Plan intends to support agriculture as a land use as long as it is economically feasible. Additionally, the amount of open space and trails identified for preservation will encourage the continuation and enhancement of the rural and equestrian lifestyles. Because the Plan is aggressive in the amount of land identified for open space, creative solutions and strong leadership will be required to achieve this objective. The Plan sets the stage and presents strategies, such as increased residential densities in exchange for large swaths of preserved open space, in an attempt to move the concept forward from desire to reality.

The Native American communities within Pinal County have a long history of agriculture that is intended to continue. With the water settlements, Native American community's farming operations will continue to expand and diversify. Discussions during the comprehensive planning process recognized the role agriculture will continue to play in Central Arizona. Part of the ambiance of the wide, open spaces between Phoenix and Tucson are due to the Native American communities' large agricultural operations. Accomplishing compatibility and an appropriate transition between farming operations on Native lands and development elsewhere is critical. Native American communities should be involved in determining appropriate guidelines for buffering and transitions between land uses to minimize impact.

Native American Indian Communities

Pinal County is home to four sovereign nations: Gila River Indian Community, Tohono O'odham Nation, San Carlos Apache Indian Reservation, and Ak-Chin Indian Community. These Native American communities play a major role in the economy of Pinal County and have a significant presence. Gila River Indian Community has several industrial parks and many very successful Tribal enterprises that provide jobs and revenues to the Community. Additionally, the

other Native American communities are expanding employment and commercial development.

Two out of the four Native American communities have major casino operations within Pinal County, and the San Carlos Apache Indian Reservation is considering the development of a casino in the County. All of these communities are working diligently to diversify their economies. The Gila River Indian Community and Ak-Chin Indian Community have major agricultural operations.

The County and municipalities are approving development adjacent to "tribal borderlands" and compatibility is important so that tribal lands are not negatively impacted. Likewise, development on these borderlands within Native American communities may have impact on property in Pinal County. Therefore, two-way communications is necessary between Pinal County, Native American communities and bordering property owners to ensure compatibility. Native American communities have been involved in the development of the Comprehensive Plan and have expressed concerns about trespassing, cultural impacts, environmental degradation, and traffic congestion impacting their communities. The Comprehensive Plan recognizes the importance of these communities and the role they play in Pinal County's future. The Plan reflects the location of these communities and respects their sovereignty by omitting any specific land uses.

Employment Growth

Today, Pinal County's jobs per capita ratio is lower in comparison to surrounding regions; unfortunately, this ratio is trending downward raising serious concerns. In 2000, Pinal County had 200 jobs per 1,000 residents but this figure dropped below 200 jobs per 1,000 residents as of 2007 (Central Arizona Association of Governments, 2008). Compared to the jobs to population ratio of over 500 jobs per 1,000 residents in Maricopa and Pima counties,

it is clear that employment growth is critical to Pinal County's future (Morrison Institute for Public Policy, Arizona State University, *The Future at Pinal*, 2007).

Historically, certain types of businesses (mostly retail and services) will develop when population thresholds are surpassed or income levels are achieved within a market. To achieve economic sustainability, a diverse mix of jobs must be present within the County. Most of the employment opportunities will continue to occur within municipalities, due to the jurisdictions' ability to provide needed public services and incentives for economic development. However, Pinal County recognizes that land use patterns approved in the unincorporated County must also be economically viable over time, because much of the unincorporated land area may someday be within cities or towns. The Plan presents a variety of employment areas to allow Pinal County to take advantage of emerging economic development trends. The County must anticipate employment and job centers so they are sustainable, viable components with resources and transportation management that are consistent with the cities' general plans.

Land Use/Transportation Linkage

Land use and transportation must be integrated to accommodate the automobile and other transportation choices, such as mass transit, bicycling, and pedestrian travel. Creating communities that support a balanced, multimodal circulation system is critical. The Plan encourages development patterns that provide effective multimodal connectivity and to coordinate development with local and regional mobility improvements.

Regional Focus

Pinal County recognizes that if the municipalities within the region are economically viable and their livability continues to improve,

the County as a whole will be positively impacted. This interdependence is a fundamental component of the Plan, and it was a goal of the planning process that created the "one plan" concept that recognizes incorporated municipal planning efforts. The Comprehensive Plan promotes a relational planning approach where collaboration and coordination are paramount. The County-wide Plan has impacts well beyond the unincorporated lands and therefore, the County municipalities and Native American communities should continue to collaborate.

Open Space

Throughout the planning process, residents affirmed their desire to preserve large swaths of open space in Pinal County, protecting the mountains, wildlife habitats, natural landmarks, rivers and sensitive areas. Residents also wanted to preserve the natural environment as an integral component of the built environment, resulting in a connected open space system that future generations could enjoy. Pinal County adopted in November, 2007, an open space element as an amendment to the 2001 Comprehensive Plan. Portions of the open space element, including the planning goals, objectives, policies, and map of the *2007 Open Space and Trails Master Plan* are incorporated into the Comprehensive Plan. Realization of this open space vision requires innovative land use planning, context sensitive site design and realignment of densities. The Master Plan outlines additional strategies in addition to funding sources to acquire open space and implement the County's Vision for open space, trails and recreation.

Context Sensitive is defined as an approach by which development fits its physical setting and preserves scenic, aesthetic, historic and environmental resources.

Commercial Air Service and General Aviation

Based on preliminary research, a commercial airport appears viable in Pinal County. The commercial airport and surrounding area could serve as the hub of a large commerce and employment center. Potential population growth in the County coupled with

long-term capacity and access issues at Phoenix Sky Harbor Airport, Tucson International Airport, and the Phoenix-Mesa Gateway Airport, may provide an opportunity for Pinal County to support its own passenger and freight facility by 2038. To realize such a long-term Vision requires considerable additional study and leadership to make this concept a reality.

While further study is necessary, the Comprehensive Plan has identified an area in the center of the County, near the existing Coolidge Airport, for the Aviation-Based Commerce Center as it appears to have the most viability. This 47-square mile parcel (72 square miles in the previous Comprehensive Plan) is on state trust lands. Approximately four to six square miles is needed for actual airport operations, while the area around the airport could become a major economic and job center. The actual size of the airport project will be determined through further study, including an economic assessment, an analysis to determine the runway configuration, and a determination of the optimum location of the airport on the property. It will be important to preserve the airport site and surrounding land for compatible economic uses and buffering.

The Denver International Airport is 34,000 acres or approximately 53 square miles. While it is understood that Pinal County's potential airport will not be to the scale of the Denver Airport, the proposed planning area is not an unreasonable size to begin studying. The significant level of noise area for Tucson International Airport is 4.7 miles wide and 12 miles in length. The planning area for Pinal County's potential commercial airport is 9 miles by 4.8 miles as shown on the Land Use Plan.

Economic projections within the Comprehensive Plan do not include the potential development of a commercial airport, due to the long-term planning horizon required. Should the airport be developed, its expected economic impact will be a bonus to the County's

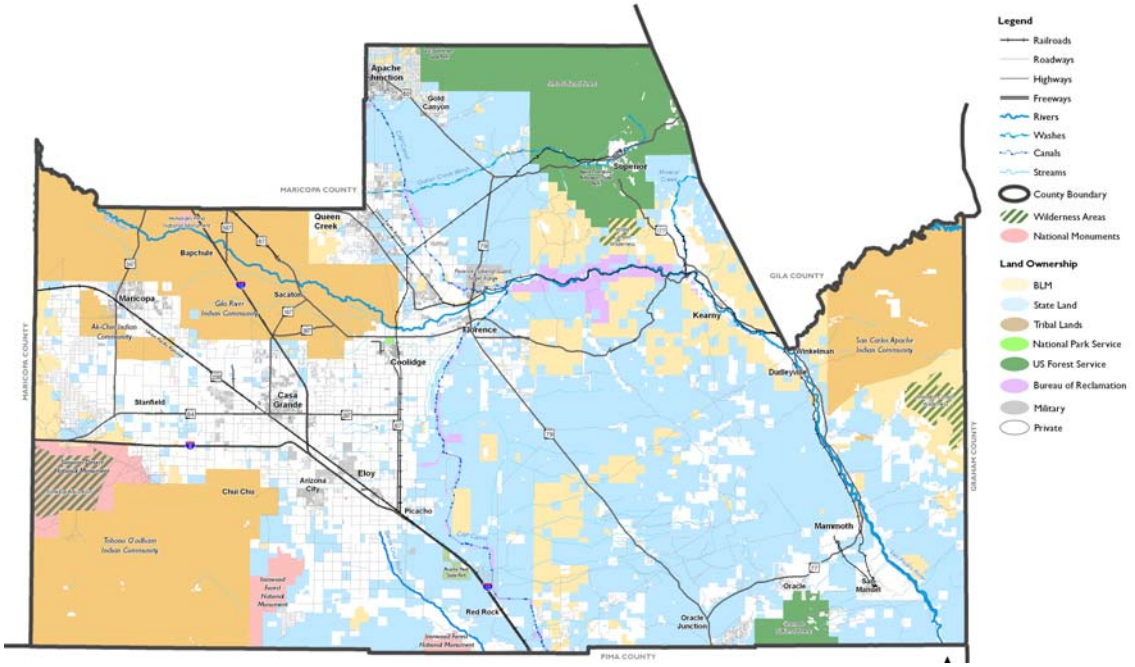
economy and may permit a shift of other land uses in subsequent plan updates.

Before selecting the final site for the Pinal County commercial airport, the size of the airport needs to be defined on the basis of market demand. The market will dictate basic airport facilities, such as number and length of runways, size of terminal buildings, access and parking. The evaluation of potential sites requires a comprehensive analysis of market demand and airport requirements.

The Comprehensive Plan also shows all of the general aviation airports in Pinal County. General aviation airports can be organized into Primary and Secondary airports. Primary airports are those airports that have 10 or more based aircraft and have 2,000 or more annual aircraft operations. Airports that do not qualify for inclusion in the Primary Airport System are called Secondary Airports and are mainly public use airports/heliports.

Additionally, within Pinal County, there is low-level flight training paths for military training routes. These are designated as low level military routes that allow Department of Defense aircraft to conduct flights that may be as low as 100 feet above the ground at speeds above 250 knots. Generally, altitudes for these routes range from 300 feet to 1,000 feet.

3-3: Land Ownership Map



Arizona State Trust Land

Growing Smarter legislation states that counties are required to work closely with the ASLD "for the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the County." A requirement of this legislation is that the ASLD develop conceptual land use plans for urban trust lands. The conceptual plans are intended to be integrated into the comprehensive or general plans of jurisdictions. ASLD works with the County to integrate the ASLD's conceptual land use plans into the Comprehensive Plan. Exhibit 3-3 depicts land ownership in Pinal County. ASLD also works collaboratively with municipalities on lands within cities.

Two additional planning projects that are occurring on state trust lands include areas called the Lost Dutchman Heights (City of Apache Junction) and Superstition Vistas (northern Pinal County). The Lost Dutchman Heights property is being master planned for disposition to potential developers, and the ASLD is also participating in the master planning of Superstition Vistas led by the East Valley Partnership. These parcels are being planned for eventual sale or lease and development. A portion of the Superstition Vistas area has been identified as a Growth Area in the Pinal County Comprehensive Plan, and goals, objectives,

policies and planning guidelines specific to this area are included later in this Chapter (see *Growth Areas*.)

Due to the significant state trust holdings in Pinal County, collaboration and cooperation between the ASLD and Pinal County is crucial. It is hoped that the innovative and cutting-edge smart growth planning being done for Superstition Vistas will serve as the model for future state trust parcels in Pinal County and statewide.

Land Use Plan

The Land Use Plan is intended to encourage smart growth over time. As the County moves toward buildout, growth will occur more slowly at times and more rapidly at others depending on market trends. The Plan's intent is to provide the framework to guide growth and align it with the County's long-term vision. The Vision and ultimate goals should not change dramatically, but the plan must be flexible enough to adjust to changing conditions and economic opportunities. The objective is not to determine specific land uses for every individual property but to provide a general locational framework for land uses to implement Pinal County's vision.

Land use and economic development are closely tied to the Multimodal Circulation Plan included in *Chapter 4: Mobility and Connectivity*. The Land Use Plan (figures 3-4 through 3-9) and Economic Development Plan (figure 3-10) are presented together, as they should both be consulted along with the Multimodal Circulation Plan (figures 4-4 and 4-5) when making decisions.

The Land Use Plan and Economic Development Plan maps depict the general locations where certain categories of land uses are designated to occur and the text describes how these land uses should develop. The maps should be utilized when determining the

land use designations and compatibility, identifying future multimodal transportation improvements to support land use patterns, and determining how the area will be served by mixed use employment and commercial service activity centers.

The approach outlined in the Pinal County Comprehensive Plan moves away from a site-specific focus to an approach that enhances flexibility and encourages quality development in accordance with the Pinal County Vision. It is intended to encourage innovative projects to meet stated goals, objectives, policies and planning guidelines.

Buildout is defined as the ultimate development of land in Pinal County with appropriate land uses based on a series of assumptions, including land ownership patterns, topographic and environmental constraints and opportunities, development potential, infrastructure support, and private property rights.

Buildout Concept Pinal County Comprehensive Plan is a "Vision-based" plan that outlines Pinal County's future desired condition—a dream rooted in reality. The Vision should not change dramatically over time, although projects and strategies to implement the Vision will be modified. The Pinal County Comprehensive Plan focuses on the long-term development opportunities balanced against the Vision. This buildout approach and ten year strategic view embodied in the Growth Areas element are key concepts.

Determining Boundaries The land use designation boundaries shown on the maps are located along significant natural or man-made features whenever possible. These features, including drainageways, washes, and roadways, represent general recommendations for future development. Boundary lines are to be considered approximate and discretion may be used in determining them. Variations, particularly where significant natural or man-made features are present, may be acceptable. It will be the responsibility of the Board of Supervisors, with advice from the Pinal County Planning and Zoning Commission and planning staff, and guidance provided by the Pinal County Comprehensive Plan to establish and more accurately define the boundaries if questions arise. These boundaries do not necessarily reflect currently zoned property.

Calculating Net Acres (NA)

TSA – NRLU = NA

Total Site Acreage (TSA)
Non-Residential Land Uses (NRLU)

Calculating Net Density (ND)

NA / HU = ND

Net Acres (NA)
Housing Units (HU)

Land Use Designations The County has been divided into a number of land use designations. The intent of these categories is to provide direction in determining growth patterns for today and in the future. These designations define the various land uses identified on the Land Use Plan and explain the desired intensity of development.

Land use designations are different from zoning classifications. Changes in zoning have to go through a separate process. The Land Use Plan reflects the desired generalized land use pattern. Existing approved zoning does not change automatically as a result of the Comprehensive Plan.

Calculating Net Densities Densities are described as dwelling units per acre (du/ac). Net acres represent the residential area including: local streets, collector and arterial streets; neighborhood greenbelts; parks and schools. Commercial, office, industrial, etc. are excluded. For example, when a project has a net density of 3.5 du/ac, it refers to the overall density of the project.

The Pinal County Comprehensive Plan is graphically depicted on four maps:

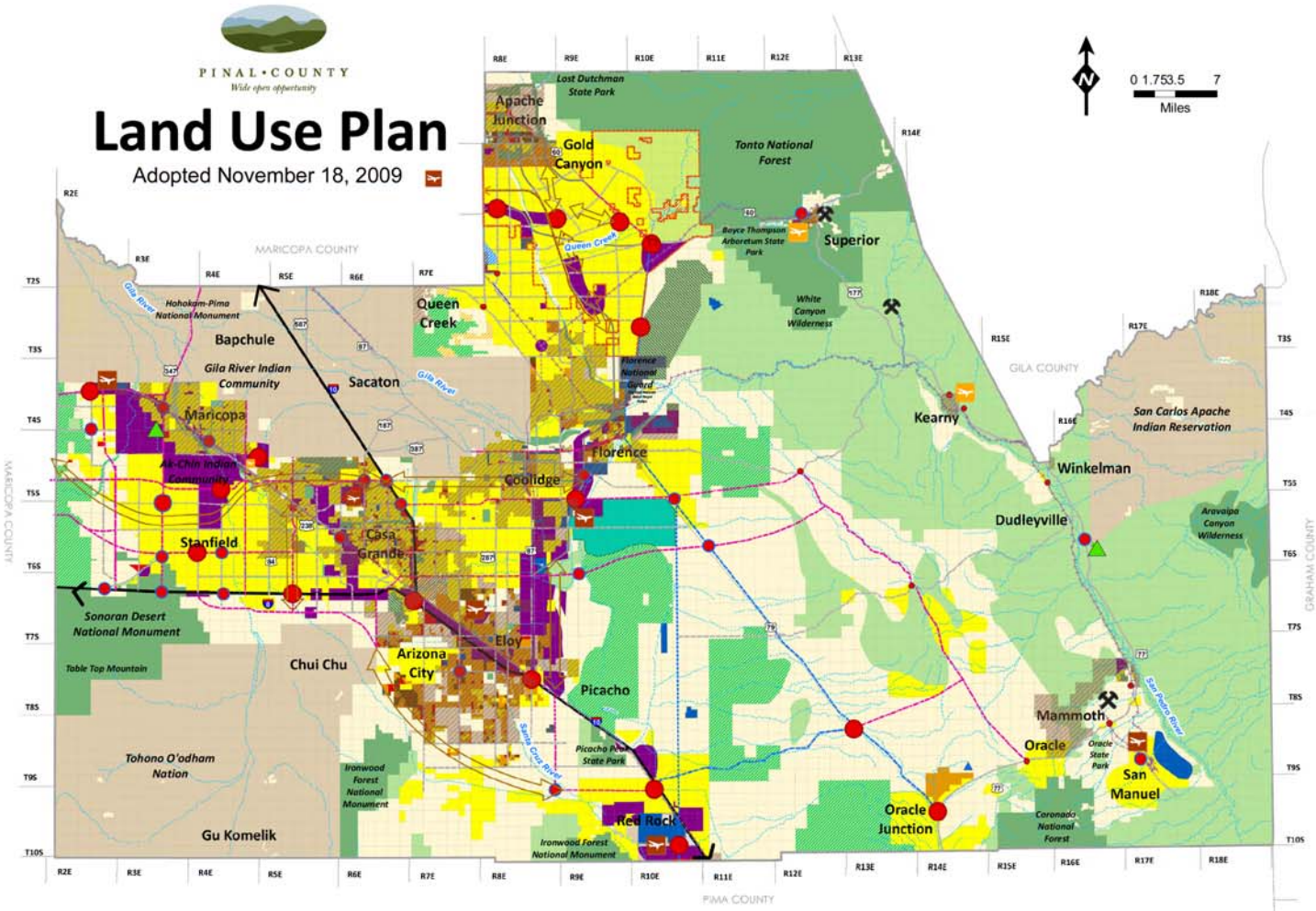
> **Land Use Plan** map (3-4) presents the general layout of land uses throughout the County. The philosophy is to concentrate higher density development in Pinal County's central core while preserving the County's rural character due to topography and environmental assets. The Land Use Plan map identifies large swaths of open space to be preserved by allowing in appropriate areas higher density urban development in exchange. The Land Use Plan promotes a variety of residential housing choices, from large lot ranchette development that continues the agrarian and equestrian heritage to high density urban development that reduces vehicle miles traveled and creates a more efficient development pattern. The Plan encourages collaboration between the County and municipalities by recognizing land uses and adopted general plans to assist in a smooth transition as areas are annexed or incorporated. The Plan also recognizes the master planning

activity of other agencies such as Native American communities and federal agencies. ASLD will be asked to use the Comprehensive Plan amendment process to include their master plans into the Comprehensive Plan.

Multimodal Circulation Plan (depicted in two maps, one focused on roadways and the other on transit) presents the range of multimodal transportation options that are directly linked to the future land use pattern. The *Multimodal Circulation Plan: Roadways* (4-4) proposes a variety of high capacity roadways to complement land uses and serve activity centers. The *Multimodal Circulation Plan: Rail, Transit and Aviation* (4-5) provides methods to develop a multimodal system that may include varying levels of transit, identifies transit center locations, creates a "context sensitive corridor" along SR 79 that encourages preservation of the scenic character, identifies a commuter rail linking Phoenix and Tucson through Pinal County, and adds a commercial airport to the system of municipal airports.

Economic Development Plan (3-10) provides the framework for locating quality employment and encouraging development of mixed use activity centers. The philosophy is to concentrate infrastructure to support employment and produce a competitive jobs per capita ratio throughout Pinal County. The Plan locates a new Aviation-Based Commerce Center that supports the potential development of a commercial airport, which will offer long-term economic potential for Central Arizona. In addition, it identifies an appropriate level of economic development in East County such as eco-tourism and environmentally-sensitive business development that encourages quality employment opportunities.

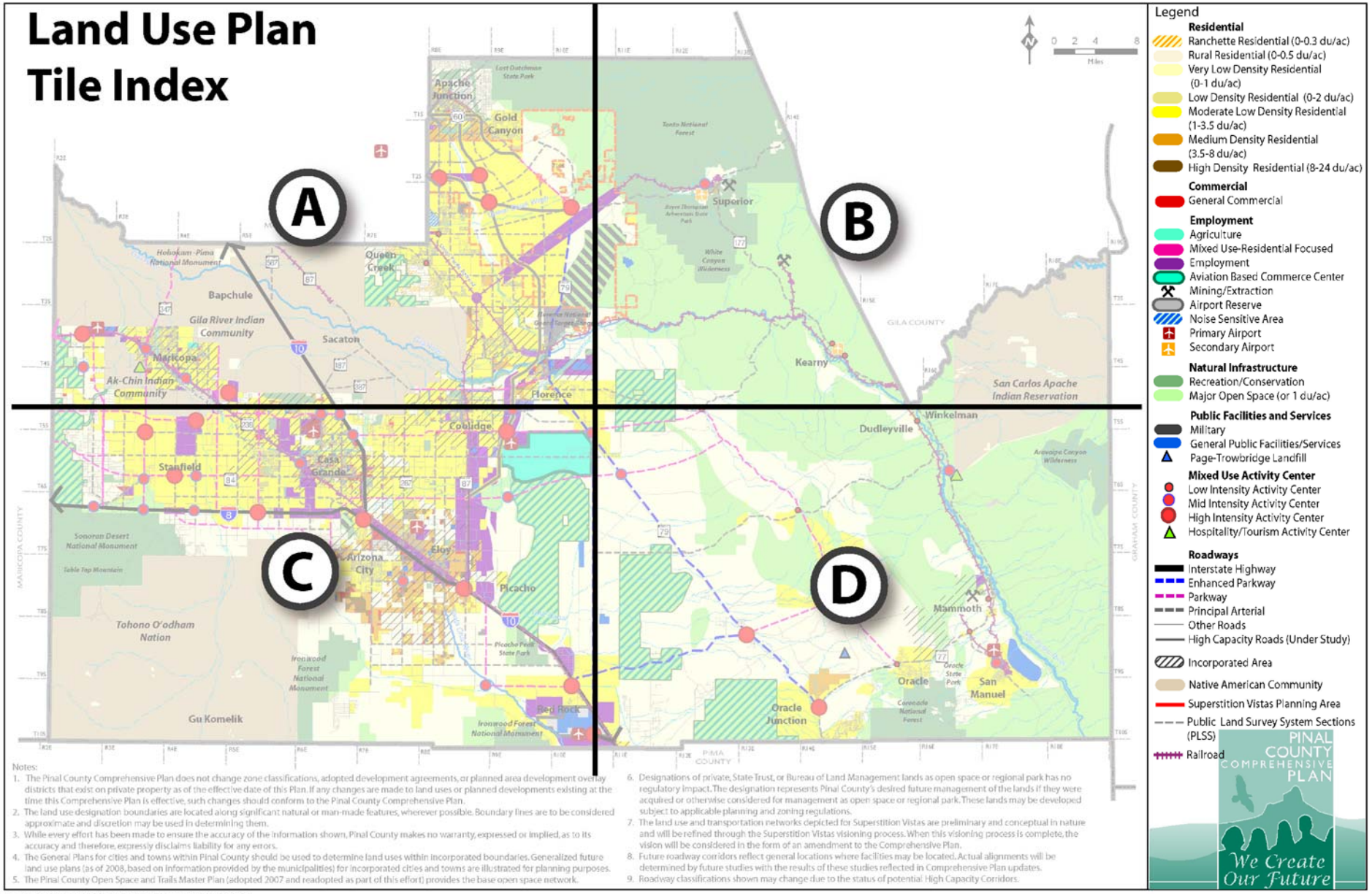
3-4: Land Use Plan



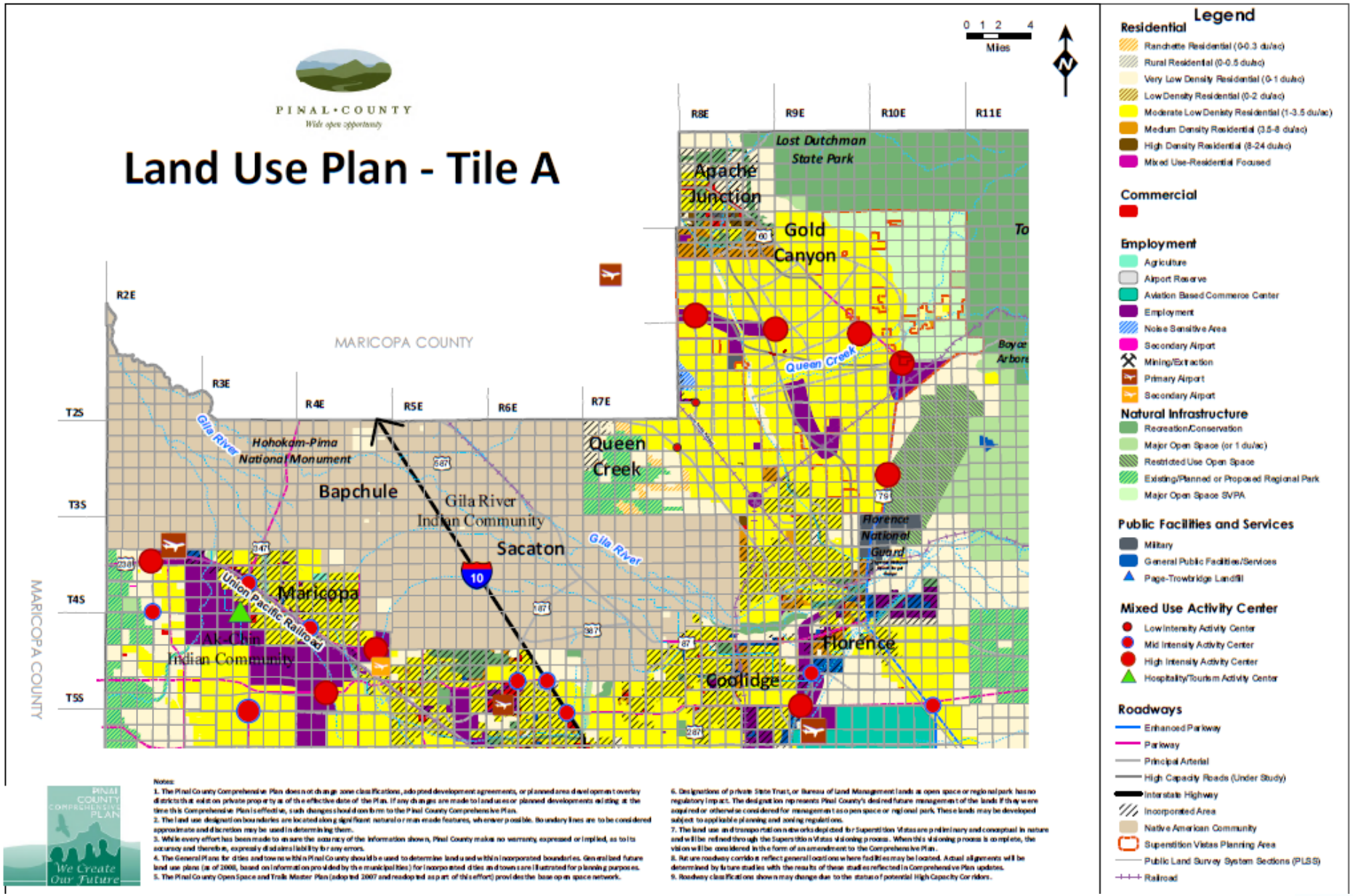
Notes:
1. The Pinal County Comprehensive Plan does not change zone classifications, adopted development agreements, or planned area development overlay districts that exist on private property as of the effective date of the Plan. If any changes are made to land uses or planned developments existing at the time this Comprehensive Plan is effective, such changes should conform to the Pinal County Comprehensive Plan.
2. The land use designation boundaries are located along significant natural or man-made features, wherever possible. Boundary lines are to be considered approximate and discretion may be used in determining them.
3. While every effort has been made to ensure the accuracy of the information shown, Pinal County makes no warranty, expressed or implied, as to its accuracy and therefore, expressly disclaims liability for any errors.
4. The General Plans for cities and towns within Pinal County should be used to determine land used within incorporated boundaries. Generalized future land use plans (as of 2008, based on information provided by the municipalities) for incorporated cities and towns are illustrated for planning purposes.
5. The Pinal County Open Space and Trails Master Plan (adopted 2007 and readopted as part of this effort) provides the base open space network.
6. Designations of private State Trust, or Bureau of Land Management lands as open space or regional park has no regulatory impact. The designation represents Pinal County's desired future management of the lands if they were acquired or otherwise considered for management as open space or regional park. These lands may be developed subject to applicable planning and zoning regulations.
7. The land use and transportation networks depicted for Superstition Vistas are preliminary and conceptual in nature and will be refined through the Superstition Vistas visioning process. When this visioning process is complete, the vision will be considered in the form of an amendment to the Comprehensive Plan.
8. Future roadway corridors reflect general locations where facilities may be located. Actual alignments will be determined by future studies with the results of these studies reflected in Comprehensive Plan updates.
9. Roadway classifications shown may change due to the status of potential High Capacity Corridors.

Source: ALRIS 2008, ADOT 2007, Pinal County 2007, CAAG 2007

3-5: Land Use Plan Tile Index

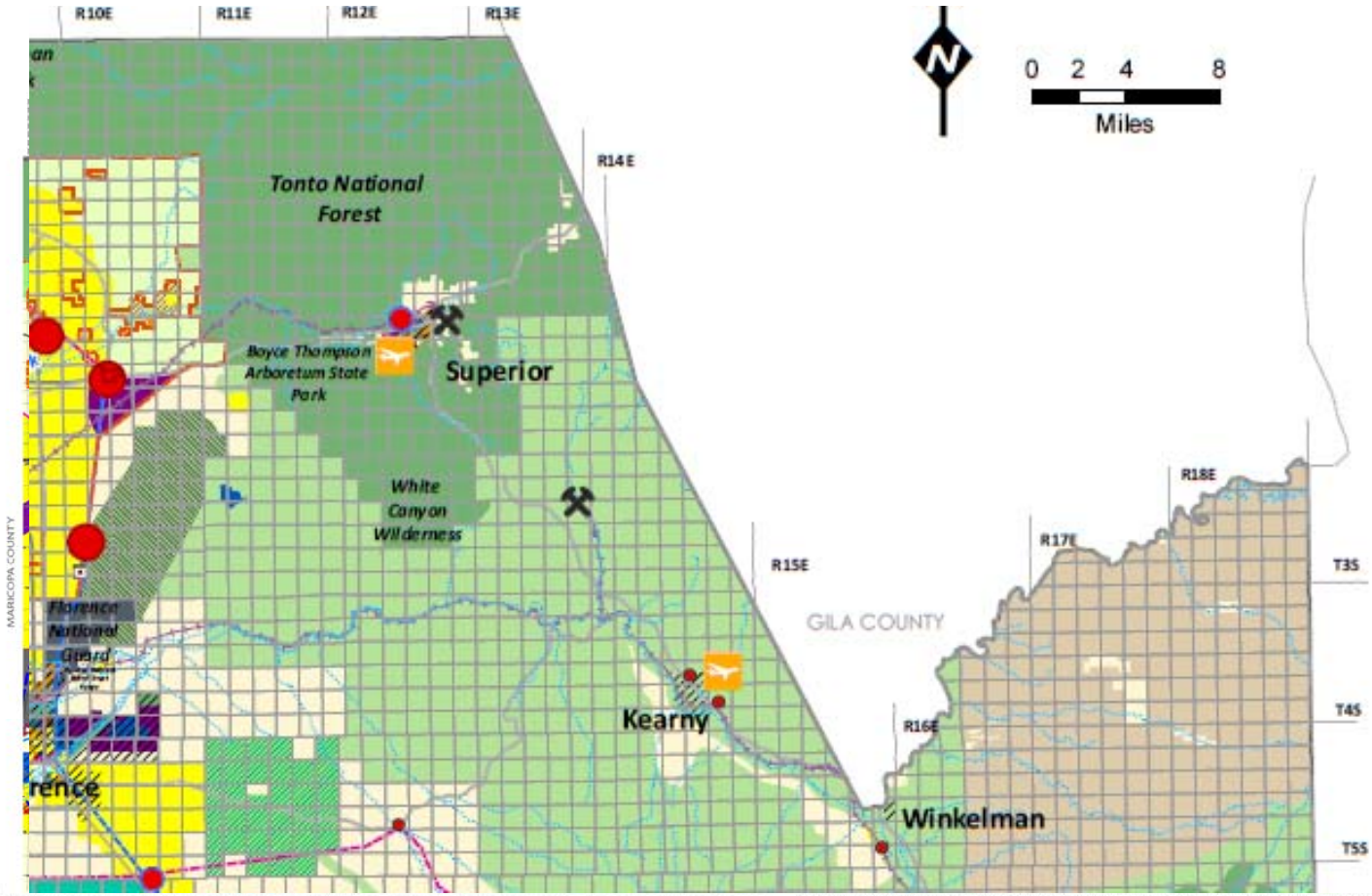


3-6: Land Use Plan – Tile A



3-7: Land Use Plan – Tile B

Land Use Plan-Tile B



Legend

Residential
- Ranchette Residential (0-0.3 du/ac)
- Rural Residential (0-0.5 du/ac)
- Very Low Density Residential (0-1 du/ac)
- Low Density Residential (0-2 du/ac)
- Moderate Low Denisty Residential (1-3.5 du/ac)
- Medium Density Residential (3.5-8 du/ac)
- High Density Residential (8-24 du/ac)
- Mixed Use-Residential Focused

Commercial
- General Commercial

Employment
- Agriculture
- Airport Reserve
- Aviation Based Commerce Center
- Employment
- Noise Sensitive Area
- Secondary Airport
- Mining/Extraction
- Primary Airport
- Secondary Airport

Natural Infrastructure
- Recreation/Conservation
- Major Open Space (or 1 du/ac)
- Restricted Use Open Space
- Existing/Planned or Proposed Regional Park
- Major Open Space SVPA

Public Facilities and Services
- Military
- General Public Facilities/Services
- Page-Trowbridge Landfill

Mixed Use Activity Center
- Low Intensity Activity Center
- Mid Intensity Activity Center
- High Intensity Activity Center
- Hospitality/Tourism Activity Center

Roadways
- Enhanced Parkway
- Parkway
- Principal Arterial
- High Capacity Roads (Under Study)
- Interstate Highway
- Incorporated Area
- Native American Community
- Superstition Vistas Planning Area
- Public Land Survey System Sections (PLSS)
- Railroad

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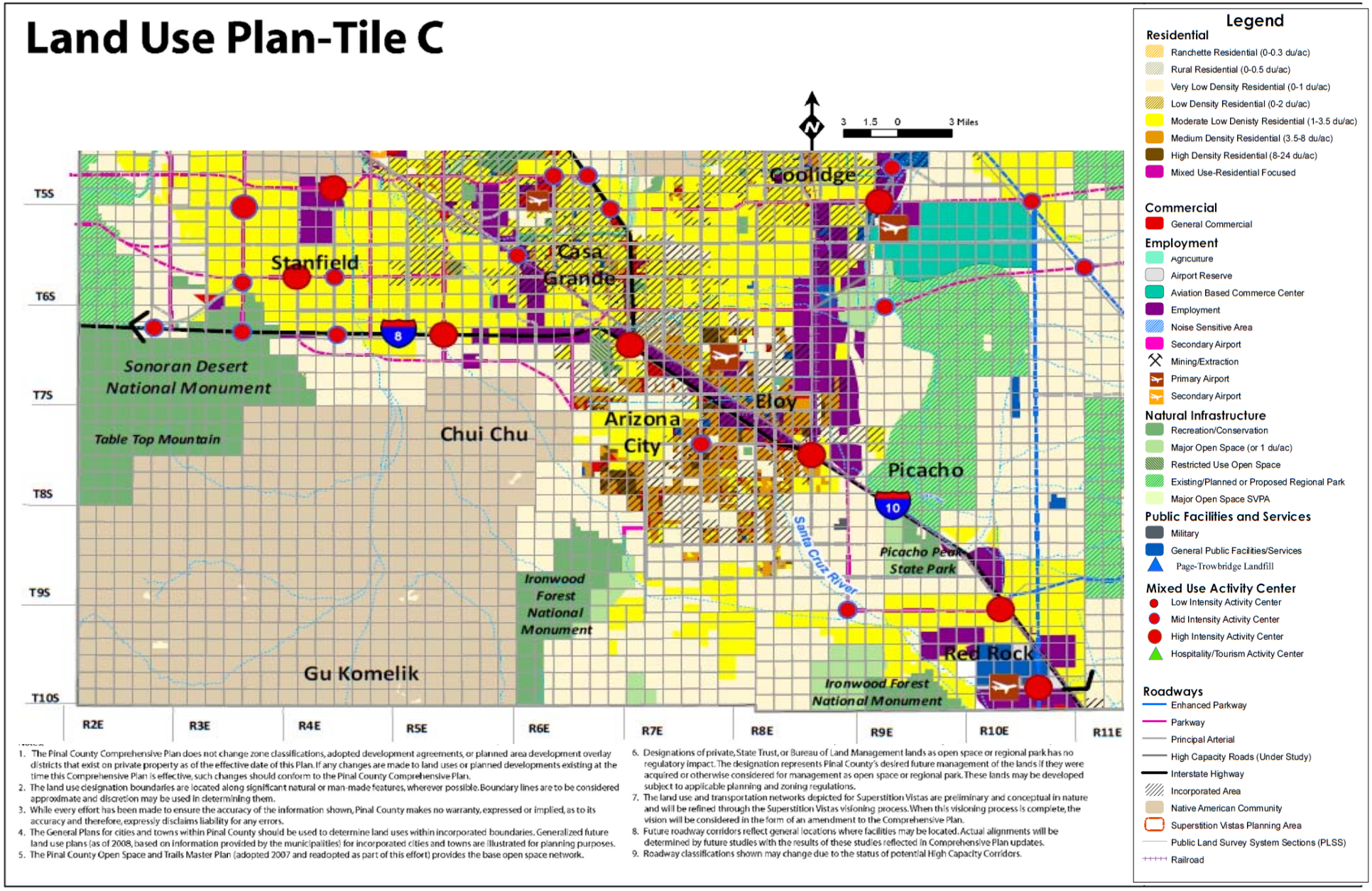
Source: ALRIS 2006, ADOT 2007, Pinal County 2007, CAAG 2007

3-8: Land Use Plan – Tile C



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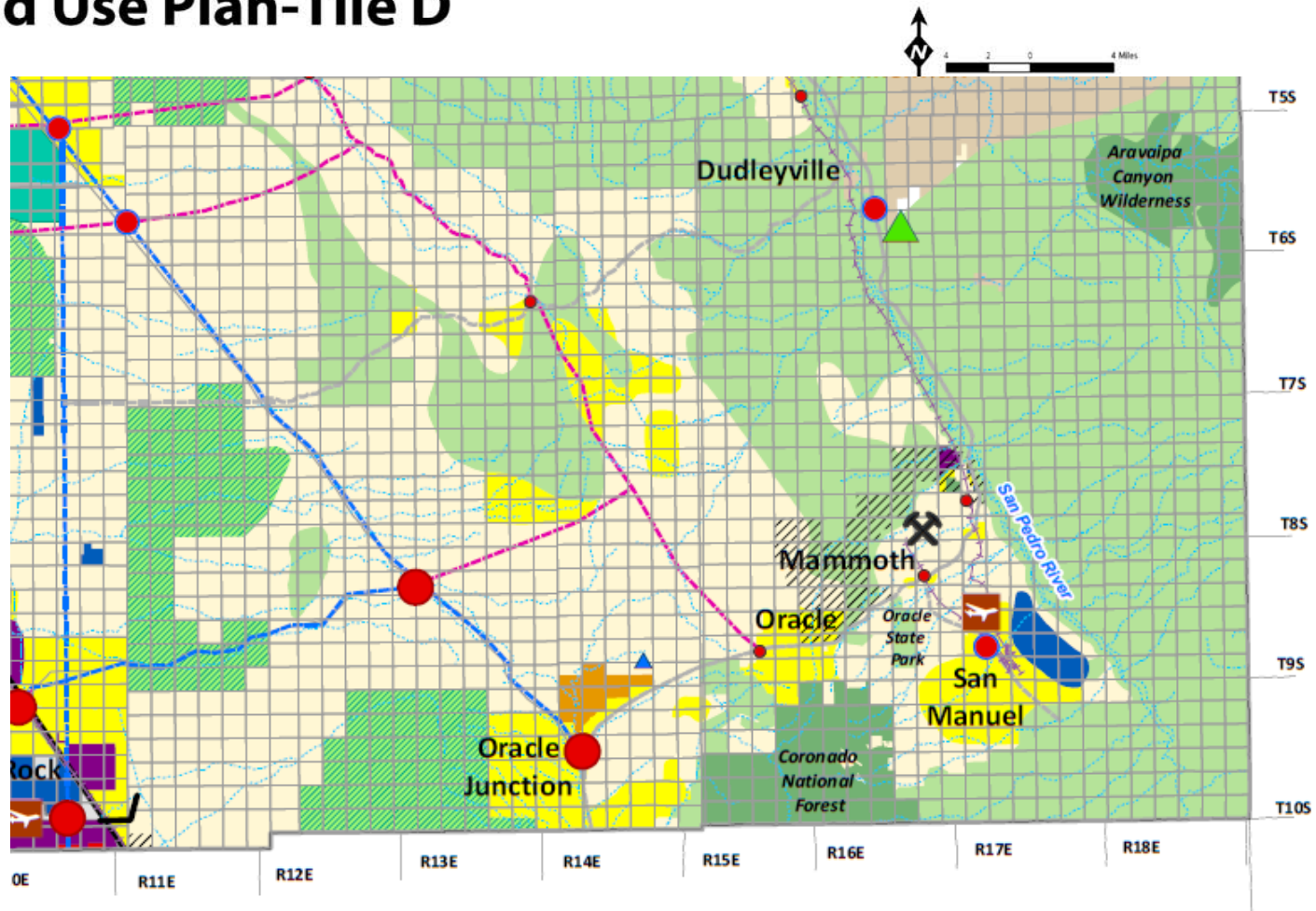
Source: ALRIS 2006, ADOT 2007, Pinal County 2007, CAAG 2007

November 18, 2009

3-9: Land Use Plan – Tile D

Land Use Plan-Tile D



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Legend

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- Rural Residential (0-0.5 du/ac)
- Very Low Density Residential (0-1 du/ac)
- Low Density Residential (0-2 du/ac)
- Moderate Low Denisty Residential (1-3.5 du/ac)
- Medium Density Residential (3.5-8 du/ac)
- High Density Residential (8-24 du/ac)
- Mixed Use-Residential Focused

Commercial
- General Commercial

Employment
- Agriculture
- Airport Reserve
- Aviation Based Commerce Center
- Employment
- Noise Sensitive Area
- Secondary Airport
- Mining/Extraction
- Primary Airport
- Secondary Airport

Natural Infrastructure
- Recreation/Conservation
- Major Open Space (or 1 du/ac)
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- General Public Facilities/Services
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Mixed Use Activity Center
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- Mid Intensity Activity Center
- High Intensity Activity Center
- Hospitality/Tourism Activity Center

Roadways
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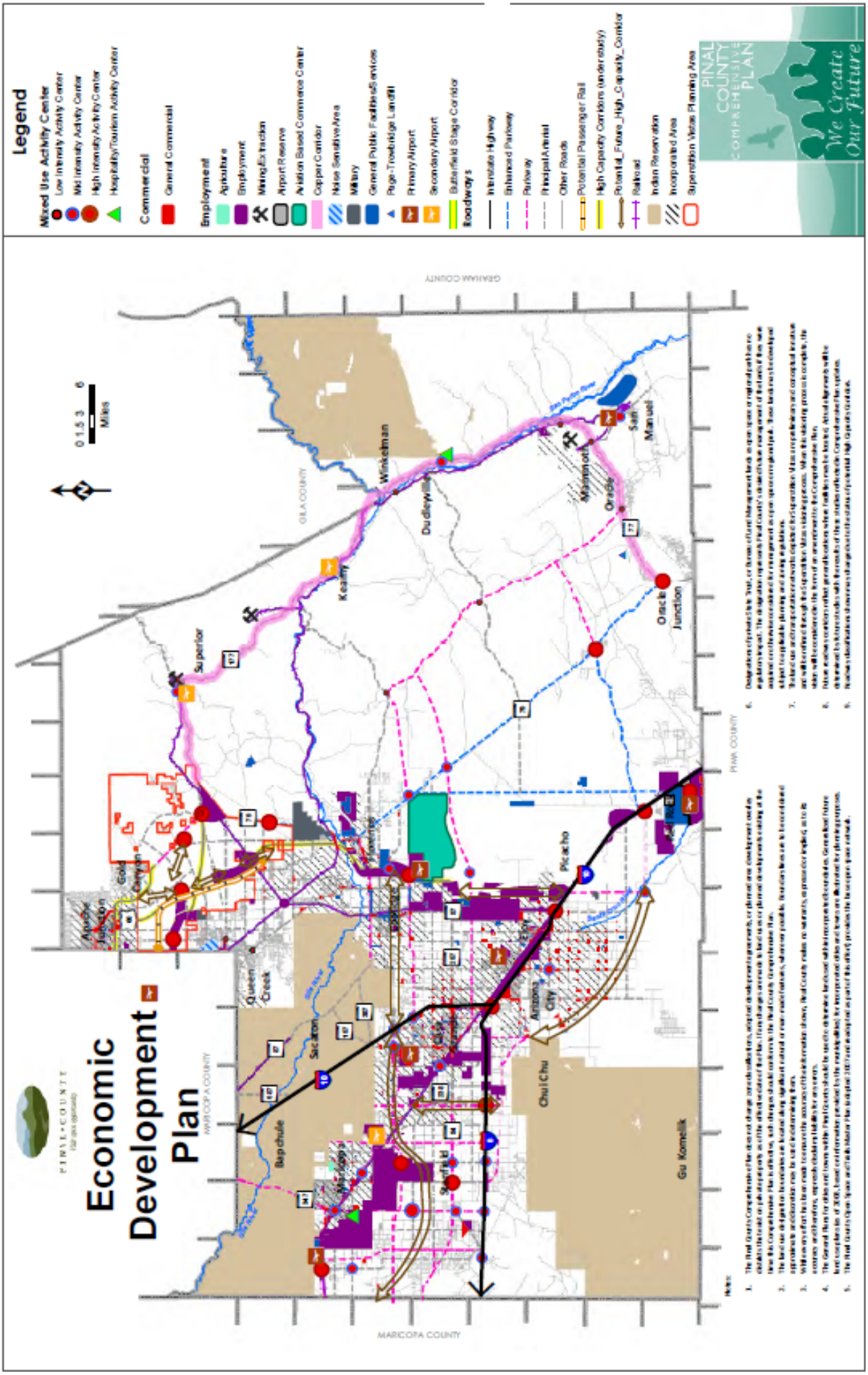
- Parkway
- Principal Arterial
- High Capacity Roads (Under Study)
- Interstate Highway
- Incorporated Area
- Native American Community
- Superstition Vistas Planning Area
- Public Land Survey System Sections (PLSS)
- Railroad

Source: ALRIS 2006, ADOT 2007, Pinal County 2007, CAAG 2007

November 18, 2009


Economic Development Plan
PINAL COUNTY
Legend
Mixed Use Activity Center
Low Intensity Activity Center
Mid Intensity Activity Center
High Intensity Activity Center
Hospitality/Tourism Activity Center
Commercial
General Commercial
Employment
Agriculture
Employment
Mining/Extraction
Airport Reserve
Aviation Based Commerce Center
Copper Corridor
Noise Sensitive Area
Military
General Public Facilities/Services
Page-Troubridge Landfill
Primary Airport
Secondary Airport
Butterfield Stage Corridor
Roadways
Interstate Highway
Enhanced Parkway
Parkway
Principal Arterial
Other Roads
Potential Passenger Rail
High Capacity Corridors (understudy)
Potential_Future_High_Capacity_Corridor
Railroad
Indian Reservation
Incorporated Area
Superstition Vistas Planning Area
PINAL COUNTY COMPREHENSIVE PLAN
We Create Our Future
0 1.5 3 6
Miles
MARICOPA COUNTY
GILA COUNTY
GRAHAM COUNTY
Apache Junction
Gold Canyon
Queen Creek
Superior
Kearny
Winkelman
Dudleyville
Mammoth
Oracle
Oracle Junction
San Manuel
Picacho
Arizona City
Chui Chu
Gu Komelik
Sacaton
Bapchule
Maricopa
Stanfield
Gila River
Salt River
Santa Cruz River
San Pedro River

Residential Land Use

Density is the number of housing units per acre developed or allowed to develop.

Residential development has occurred and will continue to occur in Pinal County because of the region's quality of life and strategic location. The historical rural and suburban development pattern will expand to include a full range of residential options such as higher density neighborhoods in appropriate locations.

Demographers and researchers following current trends report that younger people are choosing residential locations that are very different from those of their parents and grandparents. Lifestyle options are changing with the cost of fuel and the desire of young adults to live closer to work, recreational activities and other amenities.

Residential uses are shown as a range of densities. The level of density should be determined based on the location and appropriateness of the site, relationship to surrounding land uses, and using the planning guidelines. It is important to recognize that low density residential does not always relate to or result in "quality" development. The same can be said about higher density developments.

du/ac = dwelling units per acre for the overall project

Residential Land Use Definitions

Rural Residential

Ranchette Residential (0-0.3 du/ac) includes single-family residential areas with minimum lot sizes of 3.3 acres. The intent is to provide for a rural lifestyle as well as to develop within topographical constraints, such as hillsides, rivers and washes.

Rural Residential (0-0.5 du/ac) includes single-family residential areas with minimum lot sizes of 2.0 acres. The intent is to provide for a rural lifestyle as well as to develop within topographical constraints, such as hillsides, rivers and washes.

Very Low Density Residential (0-1 du/ac) includes areas that allow up to one dwelling unit per acre. The intent is to provide for a rural lifestyle as well as to develop within topographical constraints, such as hillsides, rivers and washes.

Suburban Residential

Low Density Residential (0-2.0 du/ac) includes areas that allow up to two dwelling units per acre. The intent is to provide a rural lifestyle with options for compatible suburban development. Suitability is determined by topography, location, existing land use patterns and natural and man-made constraints.

Moderate Low Density Residential (1-3.5 du/ac) intends to provide for a larger lot development pattern with options for suburban residential pattern. Suitability is determined by location, access, existing land use patterns and natural and man-made constraints. The density shown is for the

overall project. Specific areas in the project may have higher densities.

Medium Density Residential (3.5-8 du/ac) includes suburban-type development that includes attached and detached residential development.

Urban Residential

High Density Residential (8-24 du/ac) provides areas for apartments and condominium complexes ranging from 8 to 24 gross dwelling units per acre. A full range of urban services and infrastructure is required, including an adequate street network.

Mixed Use – Residential Focused (8-24 du/ac) provide areas for apartments and condominium projects as well as a mix of commercial and employment activities. This category also allows residential uses to be placed above commercial and employment activities.

Alternative Land Uses for Moderate Low Density Residential

Roadway Classifications Hierarchy

- Interstate Highway
- Enhanced Parkway
- Parkway
- Principal Arterial
- Other Roads

A large portion of the planning area is designated as Moderate Low Density Residential. Therefore, to provide flexibility and promote mixed use concepts that will result in sustainable developments, alternative land uses may be allowed if certain guidelines are met. Within this land use, Medium and High Density Residential, Commercial, and Employment (office and light industrial) developments are all permitted to some extent without a Comprehensive Plan amendment. The following guide outlines how alternative land uses can be achieved within the Moderate Low Density Residential land use designation. The acreages shown for the various intersection types are designated to show the maximum for the entire intersection.

Land use transition is defined as a gradual change in land use intensities to ensure compatibility.

Medium Density Residential Uses

Up to 25 acres

- Allowed at the intersection of two proposed or existing principle arterials or higher roadway classification (see *Roadway Classification Hierarchy*), or
- Allowed as part of a 150 acre or larger master planned community

25 to 50 acres

- Allowed at the intersection of a proposed or existing principle arterial and a proposed or existing parkway or higher roadway classification, or
- Allowed as part of a 250 acre or larger master planned community

50 to 100 acres

- Allowed at the intersection of two proposed or existing parkways or higher roadway classification, or
- Allowed as part of a 400 acre or larger master planned community

100 acres and above

- Allowed at the intersection of two proposed or existing enhanced parkways or higher roadway classification, or
- Allowed as part of a 500 acre or larger master planned community

All other proposals for Medium Density Residential within the Moderate Low Density Residential land use category will use the criteria in *Chapter 10: Implementation* to determine which type of amendment will be required.

High Density Residential Uses

Up to 25 acres

- Allowed at the intersection of a proposed or existing principle arterials and a proposed or existing parkway or higher roadway classification, or
- Allowed as part of a 150 acre or larger master planned community with a land use transition to adjacent properties

25 to 50 acres

- Allowed at the intersection of two proposed or existing parkways or higher roadway classification, or
- Allowed as part of a 250 acre or larger master planned community with a land use transition to adjacent properties

50 to 100 acres

- Allowed at the intersection of a proposed or existing parkway and a proposed or existing enhanced parkway or higher roadway classification, or
- Allowed as part of a 500 acre or larger master planned community with a land use transition to adjacent properties

100 acres and above

- Allowed at the intersection of two proposed or existing enhanced parkways or higher roadway classification, or
- Allowed as part of a 750 acre or larger master planned community with a land use transition to adjacent properties

All other proposals for High Density Residential within the Moderate Low Density Residential land use category will use the criteria in *Chapter 10: Implementation* to determine which type of amendment will be required.

Commercial Uses

Up to 25 acres

- Allowed anywhere (with consideration of compatibility with surrounding land uses)

25 to 50 acres

- Allowed at the intersection of a proposed or existing principle arterial or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 250 acre or larger master planned community with a land use transition to adjacent properties

50 to 100 acres

- Allowed at the intersection of a proposed or existing principal arterial and a proposed or existing parkway or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 500 acre or larger master planned community with a land use transition to adjacent properties

100 acres and above

- Allowed at the intersection of two proposed or existing enhanced parkways or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 750 acre or larger master planned community with a land use transition to adjacent properties

All other proposals for Commercial within the Moderate Low Density Residential land use category will use the criteria in *Chapter 10: Implementation* to determine which type of amendment will be required.

Employment Uses (office)

Up to 25 acres

- Allowed at the intersection of two proposed or existing principle arterials or higher roadway classification, or at a freeway interchange, or
- Allowed as part of a 150 acre or larger master planned community

25 to 50 acres

- Allowed at the intersection of a proposed or existing parkway and a proposed or existing principle arterial or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 250 acre or larger master planned community with a land use transition to adjacent properties

50 to 100 acres

- Allowed at the intersection of two proposed or existing parkways or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 500 acre or larger master planned community with a land use transition to adjacent properties

100 acres and above

- Allowed at the intersection of two proposed or existing enhanced parkways or higher roadway classification, or at a freeway interchange at least ¼ mile from platted or existing single family residential development, or
- Allowed as part of a 750 acre or larger master planned community with a land use transition to adjacent properties

All other proposals for Employment (office) within the Moderate Low Density Residential land use category will use the criteria in *Chapter 10: Implementation* to determine which type of amendment will be required.

Employment Uses (light industrial)
Up to 25 acres

- Allowed within ½ mile of a railroad, at least ¼ mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification, or
- Allowed within 1 mile of a proposed or existing enhanced parkway or higher roadway classification, at least ¼ mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification
- Allowed as part of a 250 acre or larger master planned community with a land use transition to adjacent properties

25 to 50 acres

- Allowed within ½ mile of a railroad, within 4 miles of a proposed or existing high capacity roadway interchange or higher roadway classification, at least ½ mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification, or
- Allowed within ¾ mile of a proposed or existing high capacity roadway or higher roadway classification, at least ½ mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification, or
- Allowed within ½ mile of a proposed or existing enhanced parkways or higher roadway classification, at least ¼ mile from platted or existing single family residential

development and with direct access to a principle arterial or higher roadway classification
- Allowed as part of a 500 acre or larger master planned community with a land use transition to adjacent properties

50 to 100 acres
- Allowed within ½ mile of a railroad, within 2 miles of a proposed or existing high capacity roadway interchange or higher roadway classification, at least 1 mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification, or
- Allowed within ½ mile of a proposed or existing high capacity roadway interchange or higher roadway classification, at least 1 mile from platted or existing single family residential development and with direct access to a principle arterial or higher roadway classification
- Allowed as part of a 750 acre or larger master planned community with a land use transition to adjacent properties

All others proposals for Employment (light industrial) within the Moderate Low Density Residential land use category will use the criteria in *Chapter 10: Implementation* to determine which type of amendment will be required.

Heavy Industrial uses are not allowed within the Moderate Low Density land use category but are encouraged to locate in the employment designated areas throughout the County and municipalities.

Planning Guidelines

The following "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff

and elected or appointed officials in developing or reviewing a residential project. Strong, healthy residential neighborhoods are important to Pinal County's quality of life and long-term vitality. The County's character is reflected in its neighborhoods and the Comprehensive Plan encourages residential variety and diversity.

General Planning Guidelines for Residential Categories

- ✓ Encourage new development that is compatible with existing adjacent neighborhoods.
- ✓ Design new neighborhoods to be safe, well-maintained and attractive places to live.
- ✓ Residential development should include natural open space where appropriate as well as high quality improved open space.
- ✓ Compatibility and transition of residential land use intensity is important.
- ✓ Consider residential neighborhood enhancements where neighborhoods may be impacted by freeways or parkways such as noise walls, landscaping or other types of buffering.

Rural Residential Planning Guidelines

- ✓ Rural residential may be oriented toward lifestyles such as equestrian, agriculture, or keeping animals.
- ✓ Rural residential may occur in areas where terrain or environmental characteristics do not allow smaller lot product.
- ✓ Consider providing linkages from rural residential areas to adjacent public lands if appropriate.
- ✓ This type of residential development tends to emphasize privacy over convenience though some types of appropriate land uses such as commercial may be compatible.
- ✓ Landowners may develop large lot, single-family rural residential, or cluster development on smaller lots to conserve open space, views, and other natural features.

- ✓ Preservation of larger, connected open space and preservation of sensitive land areas is encouraged.

Suburban Residential Planning Guidelines

- ✓ Future suburban residential areas are intended to consider compatibility and relationship to existing and proposed neighborhoods.
- ✓ Projects must be able to provide adequate water and infrastructure to support the proposed densities.
- ✓ Development impact on the transportation system should be addressed.
- ✓ Accessibility to schools and availability of community facilities/services will be evaluated.
- ✓ Integration of open space, parks, trails and recreational amenities to support the neighborhood should be addressed.
- ✓ Access to employment opportunities (to reduce vehicle miles traveled) is a consideration.
- ✓ Neighborhood design should encourage pedestrian orientation and connections.
- ✓ Project density will be subject to review and recommendation by the Planning and Zoning Commission and approval by the Board of Supervisors.

Urban Residential Planning Guidelines

- ✓ Future urban residential areas are intended to consider compatibility and relationship to existing and proposed neighborhoods.
- ✓ A mix of densities, lot sizes, housing types, and home sizes that are well integrated and compatible with one another is encouraged.
- ✓ Where urban residential is located adjacent to lower density residential projects, densities and building heights should step down to minimize impact and provide an adequate transition to adjacent buildings.

- ✓ Urban residential neighborhoods should be designed around some type of "center" or focus, such as a school complex, cultural amenities, community parks or urban green space or commercial services/town.
- ✓ Higher densities could be considered in appropriate locations closer to major mixed use activity centers or employment centers.
- ✓ Urban density residential should be served by collector or arterial streets where direct access to transit corridors or transit centers are available or will be provided over time.
- ✓ Neighborhood design should encourage pedestrian orientation and connections.
- ✓ Projects must be able to provide adequate water and infrastructure to support the proposed densities.
- ✓ Development impact on roads, accessibility, transit, and non-motorized options must be planned for and coordinated.
- ✓ Accessibility to schools and availability of community facilities/services must also be planned for and coordinated.
- ✓ Integration of open space, parks, trails, and recreational amenities should support the neighborhood.
- ✓ Access to employment opportunities to reduce vehicle miles traveled is important.
- ✓ Urban residential should be located in close proximity to neighborhood retail centers and professional services.
- ✓ Project density will be subject to review and recommendation by the Planning and Zoning Commission and approval by the Board of Supervisors.

Mixed Use Activity Centers

The Urban Land Institute (largest international organization representing the development industry) and the National Home Builders Association have promoted the advantages of mixed use development over the last 20 years and this concept has more recently been embraced as a "smart growth" strategy. Mixed use developments incorporate residential units, commercial properties, and employment uses. These areas may also contain cultural amenities such as performing arts centers, entertainment venues, museums, education and training centers, and community gathering places. Mixed use developments allow residents to minimize and shorten trips by clustering multiple services and activities and by supporting alternatives to automobile transportation. Focusing development on activity centers can reduce sprawl, conserve open space and protect irreplaceable natural resources on the urban fringe. Compact community and building design means less land required for construction. This approach also reduces energy needed for transportation, transporting water and providing other services, while reducing the carbon footprint, urban heat island effect and environmental impact.

Mixed Use Activity Center Definitions

Low Intensity Activity Centers are approximately 100 acres with a mix of professional office, commercial, tourism and hospitality uses, as well as medium to high density residential.

Mid Intensity Activity Centers are approximately 500 acres with a mix of clustered professional office, commercial, tourism and hospitality uses, medical, and medium to high density residential.

High Intensity Activity Centers are approximately 1,000 or more acres with a mix of professional office, business parks, and industrial often in a campus-like setting, as well as high and medium density residential.

3-11: Low Intensity Activity Center Characteristics
(Approximately 100 Acres Illustrated)

	Activity Center Development Zone Suggested Land Use Mix	Approximate Area of Activity Center	Suggested Land Use Mix	Primary Means of Mobility	General Activity Center Characteristics
Low Intensity Core Zone	• 10% Basic Employment • 25% Service Employment • 65% Residential	• 100 acres • 1,000-1,300' radius from center core	• Garden Office • Business Parks in Campus Setting • Community and Convenience Retail • Mix of Mid and Low Density Residential	• Neighborhood Electric Vehicles • Bicycling • Fixed Route Bus • Private Automobile	• Garden Scale Character • All Horizontal Mixed Use • All Surface Parking

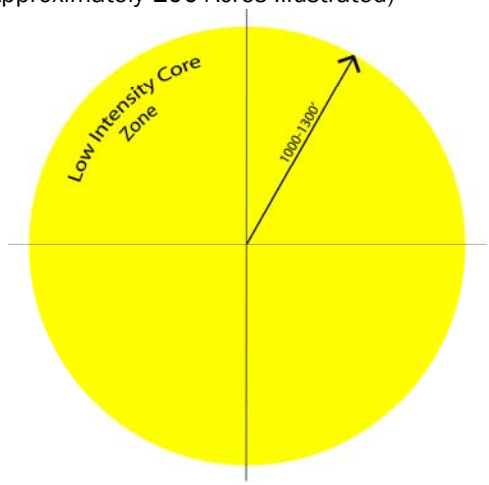
Source: Pinal County Comprehensive Plan, 2009

Mixed Use Activity Center Characteristics

Mixed Use Activity Centers have different characteristics that include approximate size, suggested land uses, mobility, and general purpose. Each of the three types of mixed use activity centers are described separately.

Table 3-11 is a matrix that illustrates how a Low Intensity Activity Center might develop. It reflects a single zone, and indicates the suggested land use mix, desired acreage targets, mobility options and general characteristics. Figure 3-12 graphically depicts this development.

3-12: Low Intensity Activity Center Development
(Approximately 100 Acres Illustrated)



3-13: Mid Intensity Activity Center Characteristics
(Approximately 500 Acres Illustrated)

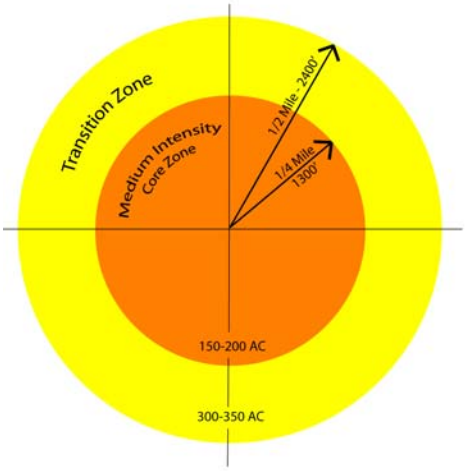
Activity Center Development Zone	Suggested Land Use Mix	Approximate Area of Activity Center	Suggested Land Use Mix	Primary Means of Mobility	General Activity Center Characteristics
Medium Intensity Core Zone	• 25% Basic Employment • 35% Service Employment • 40% Residential	• 30-40% • 150-200 acres • 1,000-1,300' radius from center	• Regional and Lifestyle Retail • Mid Density Professional Office • Entertainment • Office/Research Park • Mix of High and Mid Density Housing • High School, Vocational School and Small Governmental Campus	• Transit Circulator • Neighborhood Electric Vehicles • Walking • "Car Share" Program • Bicycling • Private Automobile	• Mid-rise Character • Vertical and Horizontal Mixed Use • Mix of Structured and Surface Parking
Transition Zone	• 15% Basic Employment • 25% Service Employment • 60% Residential	• 60-70% • 300-350 acres • 2,400' radius from center core	• Garden Office • Business Parks and Light Industrial in Campus Setting • Community and Convenience Retail • Mix of Mid and Low Density Residential	• Transit Circulator • Neighborhood Electric Vehicles • Bicycling • Fixed Route Bus • Private Automobile	• Garden Scale Character • Mostly Horizontal Mixed Use • Mostly Surface Parking

Source: Pinal County Comprehensive Plan, 2009

Table 3-13 is a matrix that illustrates how a Mid Intensity Activity Center might develop. It reflects the activity center in two zones: Transitional and Medium Intensity Core. It also indicates the suggested land use mix, desired acreage targets, mobility option and general characteristics.

Figure 3-14 graphically depicts this development.

3-14: Mid Intensity Activity Center Development
(Approximately 500 Acres Illustrated)



3-15: High Intensity Activity Center Characteristics
(Approximately 1,000 Acres Illustrated)

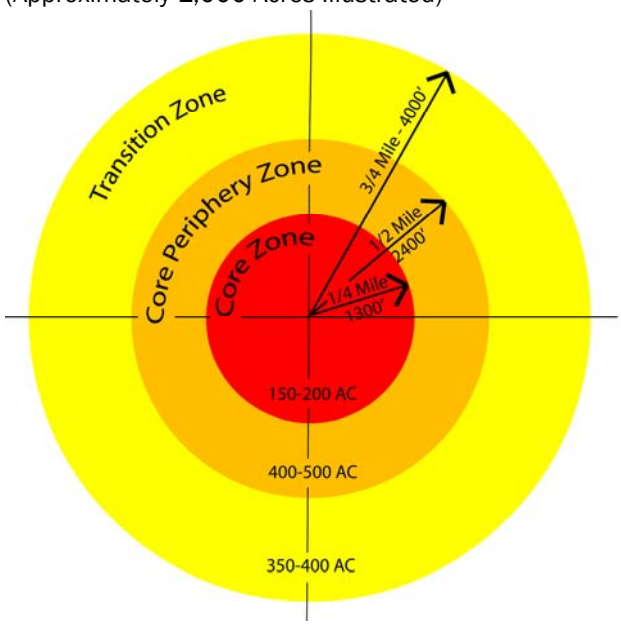
	Activity Center Development Zone Suggested Land Use Mix	Approximate Area of Activity Center	Suggested Land Use Mix	Primary Means of Mobility	General Activity Center Characteristics
Core Zone	• 50% Basic Employment • 20% Service Employment • 30% Residential	• 15-20% • 150-200 acres • 1,300' radius from center core	• Corporate Offices • Medical, Educational, Governmental Campus • High Density Hospitality and Entertainment • High Density Residential	• Transit Circulator • Neighborhood Electric Vehicles • Walking • Bicycling	• Most Height Ranging to High-rise • Most Vertical Mixed Use • Structured Parking
Core Periphery Zone	• 40% Basic Employment • 35% Service Employment • 25% Residential	• 40-50% • 400-500 acres • 2,400' radius from center core	• Mid Density Professional Office • Regional Retail • Hospitality and Entertainment • Office/Research Park • Mix of High and Mid Density Housing	• Transit Circulator • Neighborhood Electric Vehicles • "Car Share" Program • Bicycling	• Mid-rise to High-rise Character • Vertical and Horizontal Mixed Use • Mix of Structured and Surface Parking
Transition Zone	• 50% Basic Employment • 15% Service Employment • 35% Residential	• 35-40% • 350-400 acres • 3,800' radius from center core	• Garden Office • Business and Light Industrial Parks in Campus Setting • Lifestyle Retail • Mid Density Residential	• Transit Circulator • Neighborhood Electric Vehicles • Bicycling • Fixed Route Bus • Private Automobile	• Mid-rise to Garden Scale Character • Mostly Horizontal Mixed Use • Mostly Surface Parking

Source: Pinal County Comprehensive Plan, 2009

Table 3-15 is a matrix that illustrates how a High Intensity Activity Center might develop. It reflects the activity center in three zones: Core, Core Periphery, and Transition. It indicates the suggested land use mix, desired acreage targets, mobility options, and general characteristics.

Figure 3-16 graphically depicts this development.

3-16: High Intensity Activity Center Development
(Approximately 1,000 Acres Illustrated)



Mixed Use Activity Centers shown within incorporated municipal boundaries are recommendations only, based upon information contained in existing municipal general plans and/or opportunities identified during the Pinal County Comprehensive Plan development process.

Mixed Use Activity Centers located in areas under Pinal County jurisdiction shall be implemented using the following criteria:

Target sizes for Activity Center types:

Low Intensity Activity Center:	100 acres
Mid Intensity Activity Center:	500 acres
High Intensity Activity Center:	1,000 acres

No Comprehensive Plan amendment is required if the Activity Center proposed meets all of the following criteria:

- The Activity Center is located where indicated on the Pinal County Land Use Plan
- The area included in the proposal is within 25% (above or below) of the size of the Mixed Use Activity Center target size (100 acres for Low Intensity, 500 acres for Mid Intensity and 1,000 acres for High Intensity)

A non-major Comprehensive Plan amendment is required if the Activity Center proposed is not located where indicated on the Pinal County Land Use Plan, but is within five miles of the location shown on the Plan.

The Mixed Use Activity Center parameters described in this section supersede all other Major and Non-Major Amendment requirements outlined in *Chapter 10: Implementation*. Proposed text changes regarding Mixed Use Activity Centers that conflict with or alter the

Plan's goals and policies and all other proposals require a Major Amendment.

Planning Guidelines

The following "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff and elected or appointed officials in developing or reviewing a Mixed Use Activity Center project.

- ✓ Mixed Use Activity Centers are located where there is good access to appropriate transportation corridors that can accommodate the projected traffic.
- ✓ Mixed Use Activity Centers integrate the different uses such as residential, commercial or employment as part of a coherent master plan.
- ✓ Mid and High Intensity Mixed Use Activity Centers can be either vertically or horizontally mixed.
- ✓ Encourage economic uses within Mixed Use Activity Centers that offer a range of quality jobs.
- ✓ Locate housing near activity cores that include jobs, transit, schools, shopping and recreation so that shorter commutes are encouraged and congestion reduced.
- ✓ Concentrate commercial and higher density residential development in areas adjacent to existing or potential transit corridors and with infrastructure support.
- ✓ Encourage transit-oriented development near future multimodal corridors and transit centers.
- ✓ Encourage pedestrian- and transit-oriented developments that de-emphasize auto-oriented land uses.
- ✓ Encourage context sensitive development that addresses environmental characteristics, surrounding land uses, and scale.

Vertical Mixed Use is typified by residential use over commercial uses in the same building or any other potential diversity of land uses within a building.

Horizontal Mixed Use combines residential, commercial and employment-type uses on the same site, but in separate buildings.

Transit-Oriented Development is pedestrian-oriented development designed to facilitate access and use of transit facilities including buses, bus stops and light rail stations.

- ✓ Building heights should be evaluated during the development review process and established based on the location and area context. Where appropriate, building heights should transition or step down to ensure compatibility with adjacent development.
- ✓ Discourage strip commercial development along roadways.
- ✓ Mixed Use Activity Centers are encouraged to provide internally connected streets and pedestrian amenities that provide direct access to land uses and adjacent development.
- ✓ Support the continuation and expansion of historic downtown areas because they define community character and often have smaller scale mixed use development.
- ✓ Encourage urban development in already urbanized areas that are better equipped to provide water, sewer, police, and fire protection services efficiently.
- ✓ Encourage underground, understructure and multi-level parking structures.

Commerce-Related Land Uses

Job creation is critical to sustain a healthy economy and enhance the County's quality of life. The increase in jobs in Pinal County will occur through creating places attractive for business development and job creation. It is critical to the County's livability to reduce average commute lengths and long distance commuting to the Phoenix and Tucson metropolitan areas; this will reduce environmental impacts and congestion while increasing productivity and residents' quality of life.

Many successful master planned communities throughout Arizona and around the U.S. market their development as places where people can both live and work. It is a good selling point and a

worthy goal. At the master planned community scale (e.g., hundreds or thousands of acres) reaching an acceptable jobs to population ratio becomes achievable. For smaller scale projects, it becomes more difficult to match jobs to housing. Pinal County's goal is to emphasize jobs to population balance in the larger sub region of which a project is part, rather than striving for balance in every project. Developments that strive to bring jobs and housing into better balance help to reduce commute lengths resulting in a reduction in vehicle miles traveled.

Basic activities bring new dollars into the community.

Land uses within this category include both basic and non-basic economic activities. Both basic and non-basic activities create jobs, but basic activities (such as manufacturing) tend to create higher wage jobs than non-basic activities (such as services and retail.)

Non-basic activities, in most cases, circulate existing dollars within the community.

The Land Use Plan (3-4) identifies areas for employment-generating economic activity and the Economic Development Plan (3-10) outlines how Pinal County will attract quality jobs to the region. The employment target for Pinal County is closer to the economically healthy 500 jobs per 1,000 residents. When choosing a location for employment, the following business location factors are considered by a company or its hired site locator:

- Access to a skilled and/or unskilled workforce.
- Good transportation access to support the movement of goods and services as well as customer access.
- Adequate infrastructure (water, sewer, transportation, telecommunications, energy, fire suppression, etc.) to support existing and future activity.
- Proximity and access to market, for goods and services.
- Availability and affordability of sites and buildings are critical in making location decisions.
- Affordable and stable business climate (taxes and regulations).

- Proximity to affordable housing.
- Proximity to business amenities such as services, hotel accommodations, meeting room space, and restaurants.
- Quality of life factors (education, housing availability and affordability, recreation, open space, cultural resources, healthcare, crime, etc.) are critical.

Retail commercial development is intended to be located throughout the County to support residential development and create jobs. Most of the current commercial development occurring within unincorporated Pinal County is "neighborhood commercial." However, a full range of commercial development is encouraged.

Commerce-Related Definitions (Commercial and Employment)

General Commercial provides locations for commercial development included in adopted municipal general plans. The Pinal County Comprehensive Plan does not make any changes to these locations. This category allows uses in unincorporated areas.

Neighborhood Commercial is defined as less than 20 acres and is not shown on the Land Use Plan, but may be included in all land use designations if it addresses the Comprehensive Plan planning guidelines. Neighborhood commercial includes commercial goods and services and typically serves a surrounding residential population.

Community Commercial is intended to be mid-scale (approximately 20 to 40 acres) of retail, service, and professional office.

Regional Commercial is intended to be large-scale (over 40 acre) retail centers that draw from a large regional

market area. These centers might include malls, power centers, big box retail centers, and auto dealerships.

Agriculture includes areas where agri-business activities are permitted, including traditional farming and ranching operations.

Employment is defined as areas that can support a variety of employment-generating business activities such as industrial, office, business park, and warehousing and distribution. Power plants are also included in this category.

Aviation-Based Commerce Center is a facility served by passenger service and air freight providers; it should be buffered from incompatible uses and may have surrounding employment-related uses that take advantage of aviation services and allow for expansion of airport operations and facilities. Commercial uses that support the employment may also be allowed.

Mining/Extraction identifies those areas where mineral resources have been identified or are likely to be identified in the future. The intent of this designation is to protect the mineral resources by minimizing conflicts with surrounding land uses. This designation recognizes the rights of exploration, mining, and processing of mineral resources. Copper mining is currently occurring around Superior and Kearny. All mining operations conducted by whatever techniques and technologies employed are required to comply with all applicable federal, state, and local laws providing for the protection of environmental resources.

Airport Reserve surrounds existing airports to allow for adequate buffering of surrounding land uses, buffering of surrounding land uses, expansion of airport operations and facilities and employment uses compatible with the airport.

Noise Sensitive areas include properties that are adjacent to or within the flight path of airports, including Casa Grande, Eloy, Superior, San Manuel, and Coolidge Airports, Pinal Air Park, and Phoenix-Mesa Gateway Airport. The area is subject to high noise levels resulting from aircraft arrival and departures. The intent is to encourage land use compatibility with airport activities. The Noise Sensitive Area designation is an overlay designation with additional stipulations to the underlying designations.

Primary Airport are those airports that have 10 or more based aircraft and have 2,000 or more annual aircraft operations. These airports offer future economic development opportunities as they grow and expand.

Secondary Airport is an airport that does not qualify as a Primary Airport. These airports offer future economic development opportunities as they grow and expand.

Planning Guidelines

The following "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff and elected or appointed officials in developing or reviewing a Commerce-Related project.

General Commercial Planning Guidelines

- ✓ Encourage the pedestrian scale of commercial development so visitors are enticed to walk to and between shops.
- ✓ Commercial development should be compatible with surrounding land uses, provide a proper transition or buffer and minimize negative impacts of on-site activities to adjacent uses, which may include architectural relief.
- ✓ Mitigate negative visual impacts arising from the scale, bulk, and mass of large commercial buildings and centers.

- ✓ Promote building designs and construction practices that are sustainable and adapted to Central Arizona's climate.
- ✓ Allow for needed flexibility to respond to conditions and constraints inherent to specific sites and areas in Pinal County.
- ✓ Concentrate commercial development in cohesively planned centers or districts rather than individual commercial uses or parcels in a linear strip along roadways, where possible.
- ✓ Impacts of commercial development on the surrounding local and regional roadway network must be determined by the County.

Neighborhood Commercial Planning Guidelines

- ✓ Neighborhood commercial typically serves a zero to three mile radius market area.
- ✓ Neighborhood commercial development should include adequate access, buffering between different land uses, and compatibility with surrounding land uses.
- ✓ Neighborhood commercial is located in close proximity to residential to reduce travel time and distance (e.g. to encourage walking, biking and other non-auto related travel modes).
- ✓ The size of neighborhood commercial centers should be compatible with surrounding or potential residential uses.
- ✓ Neighborhood commercial is best located on collector or arterial streets.
- ✓ Neighborhood commercial development should minimize negative impacts of on-site activities to adjacent uses.
- ✓ Mitigate negative visual impacts arising from the scale, bulk, and mass of large commercial buildings and centers.
- ✓ Promote building designs and construction practices that are sustainable and adapted to Central Arizona's climate.
- ✓ Allow for needed flexibility to respond to conditions and constraints inherent to specific sites and areas in Pinal County.

Community Commercial Planning Guidelines

- ✓ Provide good transportation access to community commercial that typically serves a three to eight mile radius market area.
- ✓ Community commercial should have direct access to parkway, principal arterial or above that can handle the projected travel demand.
- ✓ Community commercial should incorporate and/or have easy access to transit corridors and transit centers.
- ✓ Community commercial development should minimize negative impacts of on-site activities to adjacent uses.
- ✓ Mitigate negative visual impacts arising from the scale, bulk, and mass of large commercial buildings and centers.
- ✓ Promote building designs and construction practices that are sustainable and adapted to Central Arizona's climate.

Regional Commercial Planning Guidelines

- ✓ Regional commercial may include supportive land uses such as (but not limited to) hotels, theaters, and restaurants.
- ✓ Regional commercial typically serves a large market area of eight to 12 mile radius.
- ✓ Regional commercial is located on parkways or above to ensure good accessibility and encourage support of multimodal transportation. Ideally, regional commercial is located at the intersection of major high capacity corridors (systems interchanges), with a full circulation system of arterial and collector streets linking it to the nearest service interchanges.
- ✓ Regional commercial centers may also include supportive professional office employment and business parks.
- ✓ Regional commercial should incorporate or have easy access to transit corridors and transit centers.

- ✓ Regional commercial development should minimize negative impacts of on-site activities to adjacent uses.
- ✓ Mitigate negative visual impacts arising from the scale, bulk, and mass of large commercial buildings and centers.
- ✓ Promote building designs and construction practices that are sustainable and adapted to central Arizona's climate.

Agriculture Planning Guidelines

- ✓ Buffers should minimize the impact on agriculture and equestrian areas from surrounding land uses.
- ✓ Encourage appropriate setbacks, and place structures that do not negatively impact the continuation of adjacent agriculture or equestrian uses.
- ✓ Approve appropriate development adjacent to Native American communities' agricultural operations to maintain the long-term continuation of farming in Pinal County.
- ✓ Develop a connected, County-wide trail system that encourages the continuation of an equestrian lifestyle.
- ✓ Agricultural-related business and alternative crop production are encouraged. Solar and wind energy generation and other renewable energy production are compatible with the farming heritage.
- ✓ Outdoor storage and heavy industrial equipment may be appropriate in certain areas and will be evaluated as part of the development review process.

Employment Planning Guidelines

- ✓ Maintain land designated for employment to place Pinal County in a position to take advantage of future economic development opportunities.
- ✓ Encourage quality design particularly in highly visible locations, and ensure appropriate buffers when transitioning land uses (e.g. business park use to residential).

- ✓ Employment designated land uses should be located where access to major transportation corridors exist or can be provided.
- ✓ High intensity employment is encouraged in campus or urbanized areas that are adjacent to collector or arterial roadways with access to transit and an integrated pedestrian environment where possible.
- ✓ Building heights should be evaluated during the review process in relationship to the location and surrounding land uses and fire suppression. Where appropriate, building height transitions and step-down in height could be provided to enhance compatibility.
- ✓ Retail and services as well as civic uses could be included in high intensity employment campus areas but not as the primary land use.

Aviation-Based Commerce Center Planning Guidelines

- ✓ Providing adequate land area to support the use may be considered by examining two factors – what is needed for construction of facilities (including runway protection zones) and what is needed to avoid encroachment of incompatible land uses within noise-impacted areas.
- ✓ Site preparation for development of airside and landside facilities should be considered. Key factors include topography, geology, ground access, land values and utility system availability.
- ✓ Regional weather characteristics can produce local variations depending upon terrain and other factors should be considered. Local conditions related to prevailing winds are needed to identify runway alignments. Higher temperatures, such as those experienced in the southwest, require longer runways.
- ✓ The airspace environmental factor deals with interactions with other existing airports, military training routes and special use airspace, and the ability of the Federal Aviation

Administration (FAA) to develop a terminal airspace structure to support an airport, and establishment of navigational aids to guide arriving and departing aircraft. A large part of the County is overlain by Special Use Airspace (Restricted Areas and Military Operations Areas). A commercial airport must not be located within these areas.

- ✓ Federal Aviation Regulations (FAR) Part 77, Objects Affecting Navigable Airspace, should form the basis of an obstruction-free site. No man-made or natural object should penetrate any imaginary surfaces specified in FAR Part 77.
- ✓ A preliminary environmental screening should be conducted as part of the site selection process. The purpose is to eliminate areas with obvious environmental problems.
- ✓ Airport accessibility is an important consideration in how well an airport serves the public's air transportation needs. It is difficult to locate a site for a new airport that is convenient to all users, especially in a large metropolitan region. However, knowledge of existing and future community development patterns will provide some indication of the direction from population centers where the airport should be located. Convenience should be measured in travel time rather than distance.
- ✓ Airport development and expansion should address safety and compatibility with surrounding land uses.
- ✓ Adequate land to support commercial airport operations, development of aviation support facilities, and airport-related business development should be considered.
- ✓ Adequate land to allow planes to taxi from adjacent industrial areas should be considered.
- ✓ Locate airports with the ability to expand or provide supportive land uses that have good transportation access and transit systems connections to minimize congestion in and around the airport.

- ✓ Land use planning should discourage residential uses under flight paths and high-impact areas.
- ✓ Enforce height restrictions of buildings adjacent to airports.

Mining/Extraction Planning Guidelines

- ✓ Special consideration for transitioning of land uses and addressing compatibility should be evaluated.
- ✓ Noise impacts should be evaluated and mitigation may be required.
- ✓ Availability of adequate water resources and impact on water quality should be considered.
- ✓ Air quality implications should be determined.
- ✓ Impact of mine-generated traffic on local and regional roadways should be evaluated.

Airport Reserve Planning Guidelines

- ✓ As airport development or expansion occurs, land use compatibility should be considered.
- ✓ Aircraft noise impacts should be analyzed and minimized, through land use controls and adequate buffers.
- ✓ Maximize the economic development potential of airport development.
- ✓ Land uses allowed in the Noise Sensitive Area designation include industrial and commercial uses. Residential land uses are discouraged.
- ✓ All uses within Noise Sensitive Areas will be required to reduce interior noise levels to 45 DNL (decibel noise level), day-night average sound level, or lower.
- ✓ Mobile homes, recreational vehicles, and sensitive outdoor activities whose noise exposure cannot be reduced, are discouraged. Schools, churches, assembly halls, hotels and other land uses allowing large gathering of people are discouraged in Noise Sensitive Areas.

- ✓ Aggregate mines should use the Goals, Objectives and Policies shown in the Aggregate Mining section in this chapter

Noise Sensitive Planning Guidelines

- ✓ Where decibel levels are 65 DNL or greater, residential uses are not recommended.

Primary and Secondary Airport Planning Guidelines

- ✓ As airport development or expansion occurs, land use compatibility should be considered.
- ✓ Aircraft noise impacts should be analyzed and minimized, through land use controls and adequate buffers.
- ✓ Maximize the economic development potential of airport development.
- ✓ Land uses allowed in the Noise Sensitive Area designation include industrial and commercial uses. Residential land uses are discouraged.
- ✓ All uses within Noise Sensitive Areas will be required to reduce interior noise levels to 45 DNL, day-night average sound level, or lower.
- ✓ Mobile homes, recreational vehicles, and sensitive outdoor activities whose noise exposure cannot be reduced, are discouraged. Schools, churches, assembly halls, hotels and other land uses allowing large gathering of people are discouraged in Noise Sensitive Areas.

Natural Infrastructure

Throughout the planning process, residents of Pinal County stressed the importance of balancing the needs of existing citizens and future residents, natural and built environment, and housing and

business development. When looking to the future, residents have expressed their concern about losing the wide open areas that currently are prevalent throughout the County.

Within Pinal County, approximately 40% of land is designated open space. These lands are designated on the Land Use Map, and include lands managed by the USFS, National Park Service (NPS), BLM, BOR, and ASLD. Lands managed by ASLD are not considered public lands but lands held in trust for the benefit of the beneficiaries of the state trust. Considerable open space is designated on lands that are environmentally sensitive due to biological diversity of plants and wildlife, cultural resources, watersheds, floodplains, terrain or habitat areas.

A.R.S. §11-824F states:

> "In applying an open space element or a growth element of a comprehensive plan a county shall not designate private or state land as open space, recreation, conservation or agriculture unless the county receives the written consent of the landowner or provides an alternative, economically viable designation in the comprehensive plan or zoning ordinance, allowing at least one residential dwelling per acre. If the landowner is the prevailing party in any action brought to enforce this subsection, a court shall award fees and other expenses to the landowner. Each county shall incorporate this subsection into its comprehensive plan and provide a process for a landowner to resolve discrepancies relating to this subsection."

Natural Infrastructure Definitions

Recreation/Conservation identifies areas under an extra layer of federal protection, meaning that any infrastructure planned to traverse these lands will have to go through a federal permitting process and environmental review.

Major Open Space (or 1 du/ac) indicates lands the County is interested in preserving for recreation purposes or for cultural or ecological reasons. Further study is necessary to determine the most appropriate configuration of open space and to develop a strategy for preserving it. Staff will work closely with owners of development projects to implement Regional Trail Corridors, wildlife and wash corridors as shown in the *Open Space and Trails Plan* and refined through future studies. The owners of development projects will have the opportunity to propose corridor widths that meet the intent of the Comprehensive Plan, while minimizing impacts on the proposed projects. In conformance with State Law, these lands have the right to develop at one residential dwelling per acre.

Planning Guidelines

The following "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff and elected or appointed officials in developing or reviewing the Natural Infrastructure as part of a project.

- ✓ Recreational amenities, parks, trails and open space should be designed as an integral part of the project.
- ✓ Open space, parks and recreational areas must be large enough to be usable for the intended purpose.
- ✓ Open space is encouraged to be part of and connected to a larger, integrated regional system.
- ✓ The County-wide trails system should be integrated into developments where appropriate.
- ✓ Integrate the natural terrain, habitats, drainageways, foothills and other natural features into project design where possible.
- ✓ Protect and/or minimize impact to historic sites or landmarks, including distinguishable natural features.

- ✓ Provide appropriate amenities in relationship to the natural infrastructure (e.g., benches and trash receptacles in parks).
- ✓ Where appropriate, recreational activities should be explored throughout the County, including off-road vehicle parks and other active recreational opportunities to reduce environmental degradation of other areas.

Additional Land Use Designations

The following are additional land use designations indicated on the Pinal County Land Use Plan (3-4).

Military represents the Florence Military Reservation, Silver Bell Army Heliport (SBAH) and other ancillary facilities.

General Public Facilities/Services includes large public and quasi-public facilities that require significant space such as power plants, landfills, solid waste transfer stations, wastewater facilities, water campuses, and concentrations of public buildings.

Page-Trowbridge Landfill is owned by the University of Arizona and was used for disposal of radioactive and hazardous waste produced from University research activities. The facility closed in 1986 and is now in Post-Closure status with ADEQ.

Native American Community indicates a sovereign nation, operating under its own tribal government laws.

Planning Guidelines

The following additional "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff and elected or appointed officials in developing or reviewing the various topics discussed below.

Transfer of Development Rights Open space can be preserved in a variety of ways. One concept that is encouraged is the transfer of development rights (TDR). This concept refers to the transfer of the right to develop or build from one property to another property. Allowing the transfer of development rights may result in an increase in density on one property, in order to preserve large swaths of sensitive land or to preserve open space on another property. It is not the intent of Pinal County to use this technique to just increase densities but to preserve large areas of open space in accordance with the Vision. This technique is commonly used to transfer development rights from one piece of property to another.

Transfer of Development Rights Planning Guidelines

- ✓ Pinal County encourages landowners to transfer density from environmentally-sensitive areas to land more suitable for development.

Conservation Easements Another technique to preserve open space is to encourage "conservation easements." Conservation easements allow landowners to retain their property while limiting development in perpetuity. A portion of a piece of property is purchased at fair market value and a governmental entity, non-profit organization (such as The Nature Conservancy) or land trust holds the conservation easement. To achieve its open space goals, Pinal County encourages the establishment of conservation easements.

Conservation Easements Planning Guidelines

- ✓ Pinal County encourages landowners and/or non profit entities to pursue the creation of conservation easements to preserve environmentally-sensitive lands.

Rural Planning Areas According to A.R.S. §11-806, rural planning areas may be formed in counties with a population under 400,000. Currently there are no formally designated "rural planning areas" within Pinal County. The purpose of such areas is to allow unincorporated communities to voluntarily assist in formulating a sound factual and policy basis for planning in the planning area. These areas are created by petition to the County by owners of real property in any portion of the county outside corporate boundaries. According to state statutes, rural planning areas shall emphasize voluntary non-regulatory incentives for compliance and accommodation of continuing traditional and agricultural enterprises. Rural planning area representatives will transmit their recommendations to the Board of Supervisors for consideration for inclusion in the Pinal County Comprehensive Plan.

Rural Planning Areas Planning Guidelines

- ✓ Pinal County encourages residents that desire to preserve their rural character to petition to establish Rural Planning Areas.

Character/Planning Areas Pinal County residents have stated that one of the unique County features is the collection of small towns and communities each with its own character. Maintaining and promoting these character areas is very important as Pinal County continues to grow.

San Tan Foothills Area covers approximately 10 square miles within the Town of Queen Creek's planning area, of which approximately 35% is within the Queen Creek town limits. The area is an important community and regional asset that includes the San Tan Mountains, slopes and environmentally-sensitive

areas. The area primarily includes large lot housing surrounding the San Tan foothills. Protecting the San Tan Mountains Regional Park (a Maricopa County park located in Pinal County) and access to it is important. In 2007, the Town of Queen Creek adopted the San Tan Foothills Specific Area Plan for this area.

San Tan Foothills Area Planning Guidelines

- ✓ Minimize hillside disturbance.
- ✓ Encourage the preservation of the natural character and aesthetic value of the desert.
- ✓ Preserve rural values and lifestyles.
- ✓ Address building types and elevations, lighting, walls and fences, drainage, slope development (discouraged on slopes greater than 15%) and vegetation.

Oracle is a unique high desert unincorporated community located on the SR 77 Corridor north of Tucson. It is located in the Santa Catalina Mountain foothills at 4,500 feet elevation and has approximately 4,000 residents. The western heritage, desert character, flora and fauna are cherished by residents and visitors.

Oracle Planning Guidelines

- ✓ Encourage efficient transportation access.
- ✓ Preserve mountain vistas and views.
- ✓ Encourage the preservation of the natural character and aesthetic value of the desert.
- ✓ Expand economic opportunities.

Arizona City is a planned community established 1960. The community is surrounded by productive agricultural land.

Arizona City Planning Guidelines

- ✓ Implement design guidelines tailored to the community.

- ✓ Encourage the creation of destination locations within the area.
- ✓ Promote balance between conservation of natural areas and development.
- ✓ Foster community and economic growth.
- ✓ Create a sense of place.

State Route 79 Context Sensitive Corridor The Pinal County Comprehensive Plan identifies the SR 79 Corridor as an area that requires specific design and development strategies to preserve its character. The corridor from just south of the Town of Florence to Oracle Junction is known for its beautiful Sonoran Desert environment. Residents have stressed the importance of preserving the area and protecting the mountain vistas. The corridor has experienced limited development to date and is primarily managed by the ASLD. However, the corridor will develop over time. The Comprehensive Plan has identified SR 79 as an "Enhanced Parkway." These roadways are designed for relatively uninterrupted, high-volume mobility between urbanized areas. Access to adjacent properties is limited and may include a mix of at-grade intersections and grade-separated interchanges. Six to eight lanes, three or four lanes in each direction, are typical and right of way will generally be 300 feet, (*see Chapter 4: Mobility and Connectivity for more information*), including adjacent natural buffers.

SR 79 Context Sensitive Corridor Planning Guidelines

- ✓ Encourage development to cluster along the corridor and integrate the natural environment to preserve the environmental aesthetics along the roadway.
- ✓ Limit building heights, decrease building massing, and stair step building heights away from the corridor to preserve the scenic vistas.
- ✓ Implement access management along the corridor, encourage internal access roads behind buildings, and

A **scenic vista** is a view of an area that is visually or aesthetically pleasing.

consider roundabouts as an option to manage traffic flow.

- ✓ Develop a view corridor protection plan to prioritize and implement strategies to protect high-priority vistas.
- ✓ Preserve native and sensitive vegetation along the corridor.
- ✓ Use the utility corridor on the east side of SR 79 to promote a large setback to save the open space between the roadway and development.
- ✓ Encourage walking and bicycling pathways the full length of the roadway, enabling multimodal circulation, and further enhancing the scenic and natural interpretive aspects of the corridor.
- ✓ Preserve the Tom Mix monument and develop other historical markers, attractions, and sites that celebrate Pinal County's heritage.

US 60/SR 177/SR 77 Hospitality/Tourism Corridor The Hospitality/Tourism Corridor stretches from the Gold Canyon area in northern Pinal County through Superior, Kearny, Hayden/Winkelman, Dudleyville, Mammoth, San Manual, and Oracle, terminating at Oracle Junction (SR 79). The corridor is approximately 80 miles in length. Eastern Pinal County is recognized for its natural beauty and sensitive land areas among the mountains and along the San Pedro River. Residents of Eastern Pinal County recognize the need for economic development, tourism, recreation, and eco-tourism which offer opportunities for economic expansion while promoting conservation. Development along the corridor should enhance rather than detract from the natural environment. It is critical that sensitive design and context sensitive development create an authentic Arizona experience. Environmental preservation in this area is an important economic development strategy for the region.

Eco-tourism is about creating and satisfying a hunger for nature, about exploiting tourism's potential for conservation and development, and about averting its negative impact on ecology, culture and aesthetics.

US 60/SR 177/SR 77 Hospitality/Tourism Corridor Planning Guidelines

- ✓ Encourage development to cluster along the corridor and integrate the natural environment to preserve the environmental aesthetic along the roadway.
- ✓ Incorporate consideration for wildlife movements by preserving migration corridors between habitats and building safe crossing areas across transportation corridors.
- ✓ Support strategies for contextual economic development such as the recognition of the sensitivity of development near the San Pedro River.
- ✓ Work with Arizona Department of Transportation (ADOT) to identify areas for scenic viewpoints along the corridor.
- ✓ Promote bicycling along the corridor by acquiring right of way for bike facilities.
- ✓ Preserve parcels for hospitality-related uses such as resorts and hotels, and encourage high-quality tourism development.
- ✓ Promote eco-tourism development and activities in East Pinal County.
- ✓ The natural environment and historic character of this area are the "products." Efforts must be made to protect them, including preservation of mountain vistas, waterways, riparian areas, native vegetation, night skies, air quality and wildlife.

Land Use Plan Summary

Land Use Assumptions are presented in table 3-17 to assist in the analysis of the Land Use Plan.

Residential Assumptions For residential development projections, a 75% efficiency factor was used to accommodate land used for transportation, utilities, and other infrastructure. An additional 15% has been deducted from developable residential land for other uses (neighborhood commercial, parks, trails and trail connections). The result is a net 60% available for actual residential dwelling development.

Mixed Use-Residential Focused Assumptions This land use designation is assumed to include 80% residential, 15% retail, and 5% office uses.

Commercial and Employment Assumptions Employment land uses have been calculated on the basis of 70% general employment (manufacturing, warehousing, and distribution), 25% garden office, and 5% general office uses. Floor Area Ratio (FAR) illustrates the amount of property that is built upon.

Floor Area Ratio (FAR) is a formula for determining volume of building as a multiple of the lot area.

3-17: Land Use Assumptions

	Land Use	Square Feet/ Employee	FAR	Jobs/Acre
1	Office	300	1.50	175.00
2	Garden Office	300	0.35	40.00
3	Business Park	400	0.50	44.00
4	Industrial	700	0.50	25.00
5	Commercial -Regional Mall	400	0.27	24.00
6	Commercial-Big Box	400	0.25	22.00
7	Tourism/Hospitality/Resorts	350	0.20	20.00
8	Mining			5.00
9	Railroad			0.50
10	Hospital*	1600 (total)		
11	Medical Office		0.35	40.00
12	Community College (12,000 students)**			1.75
13	University (25,000 students)****	3900 (total)		
14	General Commercial ***	400	0.25	22.00
15	Supportive Commercial#		0.25	27.00

Notes: **Employment is calculated at four employees/bed based on research of Banner Gateway Medical Center and Mercy Gilbert Medical Center. The average size of hospital for this study is being estimated at 400 beds on a 60-acre site*

***These standards are taken from the Central Arizona College, Coolidge*

****The General Commercial category includes services like grocery stores, gas stations, etc. located at intersections of major arterials. It is estimated at 50 acres/15,000 DUs at 0.25 FAR and 1 employee/400 square feet of development.*

*****These standards were developed using research on Northern Arizona University and the Illinois State University statistics*

#Supportive Commercial includes retail commercial and support office. This is usually 3% of the total area of a community

Source: Pinal County Comprehensive Plan, 2009

Employment and Population Summary Based on the land uses identified in the Land Use Plan, table 3-18 summarizes the jobs and population estimates based on buildout:

3-18: Employment and Population Summary (in millions)*	
Projected population capacity	4.1 to 5.2
Projected employment capacity	3.3 to 4.1

**Calculated using Comprehensive Plan and land use assumptions*

Source: Pinal County Comprehensive Plan, 2009

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

3.1 Goal: Carefully manage and guide growth in a manner that promotes economic development, integrates current and future multimodal transportation systems and is sensitive to the natural environment.

3.1.1 Objective: Promote diverse employment opportunities near population base.

Policies:

3.1.1.1 Encourage local organizations, both public and private, to promote community and economic development throughout the County.

3.1.1.2 Encourage, coordinate and support commercial and industrial land uses in appropriate areas to maximize adequate services including transportation, water, sewer, fire suppression and utilities.

3.1.1.3 Encourage retention of existing and creation of new (and diverse) employment opportunities, including mining, agriculture and farming, tourism, high-technology industries, services and retail in appropriate areas.

3.1.1.4 Encourage the provision of buffers in the form of walls, berms, or landscaping, to protect residential, agricultural, and commercial/industrial areas and open space from conflicting land uses.

3.1.1.5 Locate more impactful commercial and industrial uses in areas away from homes where negative impacts can be mitigated.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.1.1.6 Encourage a suitable balance between employment opportunities and available housing, taking into consideration the labor force and other demographic and economic characteristics of the County.

3.1.2 Objective: Provide for the coexistence of urban and rural land uses.

Policies:
3.1.2.1 Encourage the protection, preservation, and maintenance of existing rural land uses and rural character.

3.1.2.2 Encourage the preservation and protection of rural areas by safeguarding horse privileges and buffering from higher-density areas.

3.1.2.3 Support the continuation of farming and farming-related uses through adequate buffering and other planning or regulatory techniques.

3.1.2.4 Encourage adequate buffering between intensive urban and rural land uses.

3.1.2.5 Encourage new developments to locate where amenities and infrastructure already exist, are planned or will be provided.

3.1.3 Objective: Promote mixed use activity centers, planned area developments, and cluster development that provide a mix of housing types and land uses.

Policies:
3.1.3.1 Encourage the creation of master planned communities that provide a diversity of land uses.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.1.3.2 Encourage residential development to include a variety of distinctive neighborhoods offering a choice of housing types, sizes and designs.

3.1.3.3 Encourage residential development that provides opportunities for a variety of income levels, including affordable housing.

3.1.3.4 Encourage future development to be located near existing developed areas minimizing sprawl and strip development in order to assure the provision of adequate services, preserve agriculture and open space, and maximize the utility of funds invested in public facilities and services.

3.1.4 Objective: Promote a balance between conservation of the natural environment and development.

Policies:

3.1.4.1 Encourage the protection of ridgelines, foothills, significant mountainous areas, wildlife habitat and riparian areas.

3.1.4.2 Encourage less development intensity, site coverage and vegetation removal as slopes steepness increase, to mitigate problems of drainage, erosion, siltation, landslides and visual impacts. Encourage the protection of hillsides and slopes greater than 15%.

3.1.4.3 Encourage protection of wildlife movements and mitigate habitat fragmentation.

3.1.4.4 Encourage and support techniques for acquisition and maintenance of open space.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.1.4.5 Encourage development that sensitively integrates natural environment and maintains healthy ecosystems, including the consideration of adjacent parcels, connectivity and wildlife linkages.

3.1.4.6 Encourage new development projects to preserve significant desert habitats, natural resources, landscapes and cultural resources where feasible.

3.1.5 Objective: Coordinate and cooperate with the ASLD planning of state trust lands within Pinal County.

Policies:

3.1.5.1 Encourage an inclusive planning process to ensure the best possible projects on state trust lands in Pinal County.

3.1.5.2 Encourage meaningful state trust land reform so that ASLD will be able to dedicate rights of way, preserve open space in appropriate areas, and participate more in the development process, just as developers could, to increase the value of trust lands and achieve Pinal County's vision.

3.1.5.3 Preserve in perpetuity unique and sensitive lands as open space to protect wildlife and the natural environment through acquisition or other techniques such as the transfer of development rights to other ASLD holdings.

3.1.6 Objective: Protect Pinal County residents from military and aviation related hazards and nuances.

Policy:

3.1.6.1 Discourage residential and other noise-sensitive developments within airport approach and departure zones where increased noise levels will be present as a result of aircraft over flight. Where residential development is

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

permitted, provide aviation easements, public notification of the potential for aircraft over flight and appropriate measures for noise attenuation in the construction of the dwellings.

3.1.7 Objective: Communicate and collaborate with Native American communities on planning and development issues of joint concern.

Policies:
3.1.7.1 Encourage comments by and dialogue with Native American communities on projects adjacent to or in close proximity to borderlands.

3.1.7.2 Encourage involvement and joint planning opportunities between Pinal County and Native American communities.

Character/Planning Areas Goals, Objectives, and Policies

Oracle Area
3.2 Goal: Maintain the Oracle area's unique character and improve sustainability.

3.2.1 Objective: Promote balanced land use while preserving the natural environment.

Policies:
3.2.1.1 Encourage the opportunity for Dudleyville, San Manuel, and Oracle to be economically self-sufficient and accommodate diversified economic development.

3.2.1.2 Encourage limiting access to SR 77 and SR 79 to ensure their continuance as high speed transportation corridors.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.2.1.3 Be cognizant of linear or strip commercial developments along SR 77 and SR 79 frontages, to minimize negative visual impacts and promote efficient vehicular circulation.

3.2.1.4 Encourage new developments to contain or be near a village/neighborhood center that accommodates the commercial needs of the residents and other community services, such as medical, fire and police protection facilities.

3.2.1.5 Encourage the preservation or relocation of vegetation in graded development areas.

3.2.1.6 Development planning in San Manuel and Mammoth need to consider potential impacts on groundwater and surface water, and consideration of the importance of preserving the watershed, open spaces and wildlife corridors, as well as the opportunity for eco-tourism along the San Pedro River.

San Tan Foothills Area

3.3 Goal: Maintain the San Tan Foothills Area as a rural enclave.

3.3.1 Objective: Coordinate development to preserve the unique character of the San Tan Foothills Area.

Policies:

3.3.1.1 Encourage diverse building types and building elevations.

3.3.1.2 Encourage environmentally sensitive entry features for new developments.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.3.1.3 Encourage preservation of dark skies. If street lighting is required, it should be accomplished through small, indirect, "bollard-style" light standards.

3.3.1.4 Allow for the modification of County street standards to protect existing topographic features such as washes, boulders, and rock out-croppings, and established native vegetation that cannot be moved or salvaged.

3.3.1.5 Identify building envelopes that occupy no more than 40% of the total lot area, and provide a 10-foot setback from any property line for the building envelope that should be cordoned off in the field prior to any grading or construction, with the areas outside of the cordoned building envelope remaining in a natural state, both during and after construction. Disturbed areas should be re-vegetated.

3.3.1.6 Encourage walls and fences to be low or open (pipe, rail, iron, stonework, etc.), except immediately around the dwelling or pool area, where a wall or privacy fence six feet high may be built within the building envelope.

3.3.1.7 Encourage washes and new drainage channels to maintain a "natural" desert character, with little or no disturbance, except for driveways, roadways, and utility crossings.

3.3.1.8 Discourage development above the 15% slope (contour) and ridge line.

3.3.1.9 Encourage the use of native drought-tolerant plants for re-vegetation within the building envelope.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.3.1.10 Encourage all areas designated as park land to remain intact for park uses.

3.3.1.11 Encourage continuation of horse privileges.

3.3.1.12 Encourage new development to use a water provider with an assured 100-year water supply as opposed to individual wells.

Arizona City

3.4 Goal: Create a self-sufficient, attractive community.

3.4.1 Objective: Prepare and implement design guidelines that will enhance Arizona City.

Policies:

3.4.1.1 Improve the visual quality of the built environment.

3.4.1.2 Create a sense of place, in both the commercial and residential zones, by implementing design guidelines.

3.4.2 Objective: Create focus areas of commercial and industrial development to create destination locations.

Policies:

3.4.2.1 Target the limited commercial and industrial zones that exist in Arizona City and promote key social businesses such as coffee shops, and small book stores and music stores that may build and support existing and future local business.

3.4.2.2 Encourage a linkage between commercial and non-commercial uses to create a sense of place and connection.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.4.3 Objective: Promote a balance between conservation of the natural environment, open space and development.

Policies:
3.4.3.1 Pinal County intends to be the provider of Regional Parks and Recreation opportunities for Pinal County residents. Local and neighborhood recreational opportunities, such as open space and public parks for the residents of Arizona City, are intended to be provided through the Open Space and Recreation Area Design Manual.

3.4.3.2 Secure parcels for recreational facilities for the residents of Arizona City.

3.4.3.3 Plan for access to Paradise Lake.

3.4.4 Objective: Promote community development and economic growth through alternative land use and development.

Policies:
3.4.4.1 Promote the development of mixed use developments.

3.4.4.2 Minimize the impact of new development.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

Growth Areas

Introduction

Pinal County is within the center of the Megapolitan region designated as the Sun Corridor and will experience a tremendous amount of growth and development over the next decade. Pinal County represents the central core. According to The Morrison Institute for Public Policy *Megapolitan Arizona's Sun Corridor,* there are special characteristics that distinguish these Megapolitan regions (table 3-19):

3-19: Megapolitan Characteristics

Compact	Connected	Complex	Corridors
2 or more metropolitan areas with principal anchor cities 50-200 miles apart. Population of at least 5 million by 2040.	Census-driven employment interchange measure (EIM) of 15% by 2040. EIM refers to commuting patterns and is often a measure of "interconnectedness."	Megapolitans and metros make megaregions. Virginia Tech's Metropolitan Institute identified 20 U.S. megapolitans and 10 megaregions.	Urban form is often linear with multiple centers.

Source: *Megapolitan Arizona's Sun Corridor*, 2008; Morrison Institute for Public Policy ASU.

Purpose The Pinal County Comprehensive Plan is based on a "buildout" philosophy as discussed in the previous Land Use element. However, while focusing on the long-term vision, the Plan must address a shorter-term development timeframe. The purpose of the Pinal County Growth Areas element is to define areas where development will occur or be encouraged to develop over the next decade. The intent is to encourage a comprehensive development form that promotes pedestrian-orientation that supports transit opportunities. This does not mean that this element will be used to discourage growth located outside the Growth Areas.

Arizona Growing Smarter legislation defines the Growth Areas element as the:

> Identification of those areas suitable for planning multimodal transportation, infrastructure expansion, and improvements designed to support a variety of land uses.
>
> This mixed use planning shall also include policies and implementation strategies that:
>
> a) Make automobile, transit and other modes of circulation more efficient, make infrastructure expansion more economical, and provide for a rational pattern of land development.
> b) Conserve significant natural resources and open space in the growth area and coordinate the location to similar areas outside the growth area.
> c) Coordinate development activity with public and private infrastructure construction.

Relationship to Pinal County's Vision The Growth Areas element provides the strategic implementation of the County's long-term Vision. It outlines the specific steps the County can take to encourage growth and development over the near term that is aligned with the Vision components as noted in *Vision Statement Framework* in *Chapter 1: Introduction*. The Growth Areas element should address all of the seven Vision components. Pinal County's Vision provides the long-term framework for which shorter-term development is measured against.

Strategic Areas

The Pinal County Growth Areas are:

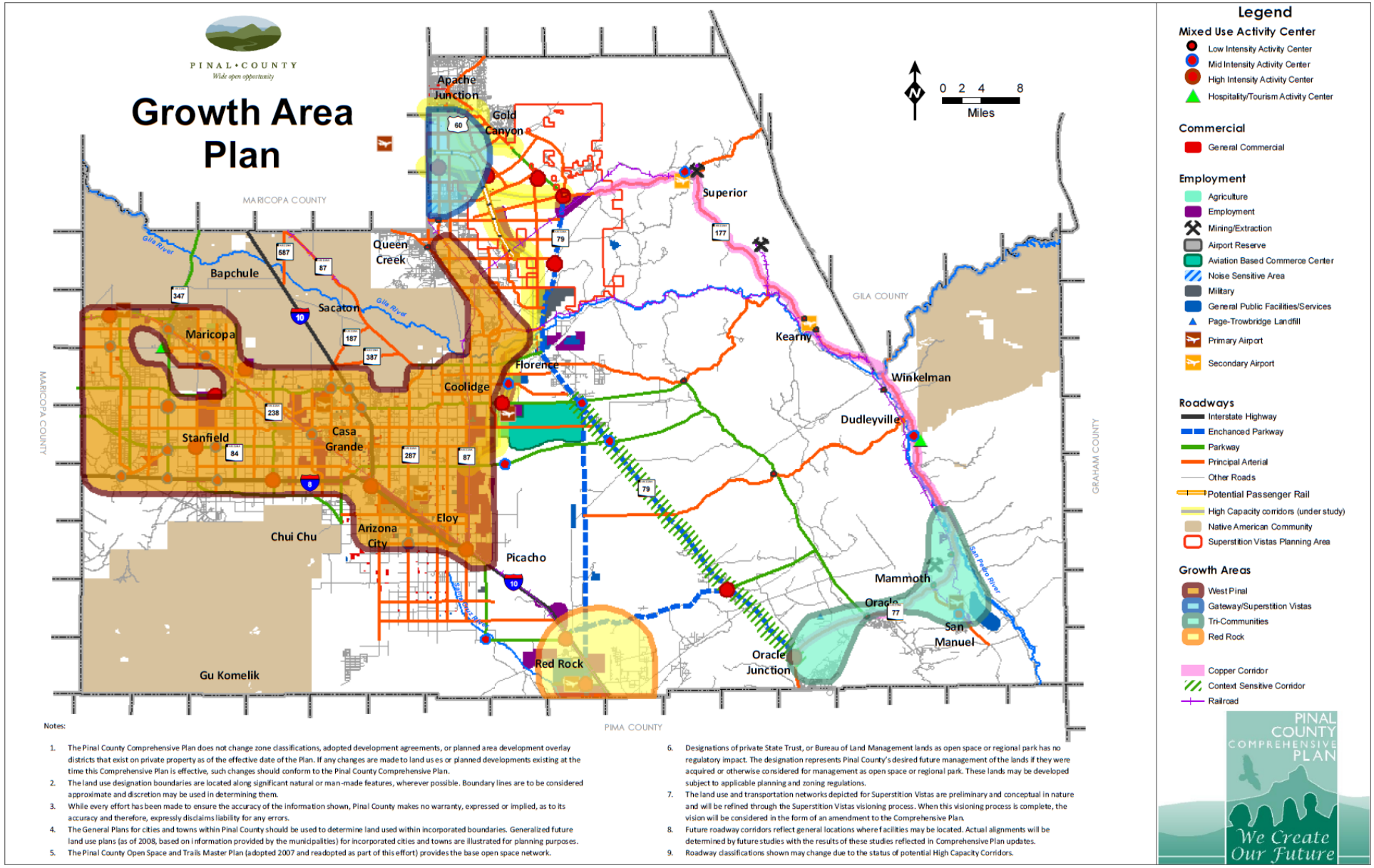
- Gateway/Superstition Vistas

- West Pinal
- Red Rock
- Tri-Communities

The four Growth Areas are shown on exhibit 3-20. The character of each of the Growth Areas is different and the rate of anticipated development will vary. Growth Area boundary lines are to be considered approximate for planning purposes and discretion may be used in determining them. The boundaries will be fine-tuned through more detailed specific area planning that will be conducted in collaboration with stakeholders.

There are challenges facing the development of these Growth Areas. Water availability and market trends impact the timing of development that will occur within these Growth Areas. Pinal County wants to protect the long-term vision from short-term development trends that are constantly changing. The County strives to guide and manage these areas to encourage appropriate development served by adequate public facilities and infrastructure in an efficient smart growth pattern. The four Growth Areas, individually and collectively, are crucial to the overall sustainability of Pinal County. Guiding and managing development within these areas is a top priority.

3-20: Growth Area Plan



Notes:

1. The Pinal County Comprehensive Plan does not change zone classifications, adopted development agreements, or planned area development overlay districts that exist on private property as of the effective date of the Plan. If any changes are made to land us es or planned developments existing at the time this Comprehensive Plan is effective, such changes should conform to the Pinal County Comprehensive Plan.
2. The land use designation boundaries are located along significant natural or man-made features, wherever possible. Boundary lines are to be considered approximate and discretion may be used in determining them.
3. While every effort has been made to ensure the accuracy of the information shown, Pinal County makes no warranty, expressed or implied, as to its accuracy and therefore, expressly disclaims liability for any errors.
4. The General Plans for cities and towns within Pinal County should be used to determine land used within incorporated boundaries. Generalized future land use plans (as of 2008, based on information provided by the municipalities) for incorporated cities and towns are illustrated for planning purposes.
5. The Pinal County Open Space and Trails Master Plan (adopted 2007 and readopted as part of this effort) provides the base open space network.
6. Designations of private State Trust, or Bureau of Land Management lands as open space or regional park has no regulatory impact. The designation represents Pinal County's desired future management of the lands if they were acquired or otherwise considered for management as open space or regional park. These lands may be developed subject to applicable planning and zoning regulations.
7. The land use and transportation networks depicted for Superstition Vistas are preliminary and conceptual in nature and will be refined through the Superstition Vistas visioning process. When this visioning process is complete, the vision will be considered in the form of an amendment to the Comprehensive Plan.
8. Future roadway corridors reflect general locations where facilities may be located. Actual alignments will be determined by future studies with the results of these studies reflected in Comprehensive Plan updates.
9. Roadway classifications shown may change due to the status of potential High Capacity Corridors.

Source: ALRIS 2007, ADOT 2007, Pinal County 2007, CAAG 2007, Open Space and Trails Master Plan 2007

November 18, 2009

Joint Area Studies

Regional cooperation has been one of the most important guiding principles of this plan update process. A challenge to regional cooperation is inconsistent land use designations between municipal General Plans and the County's Comprehensive Plan within MPAs. MPAs allow municipalities to use their General Plans to plan for future land uses in areas outside of their incorporated boundaries. The conflict is that these areas are still governed by the County Comprehensive Plan and Zoning Ordinance until they are annexed. Municipalities are often frustrated by the lack of authority in their MPAs.

To create cohesive, well planned development and to allow municipalities, and Indian Communities to participate in planning for areas outside of their incorporated boundaries, Pinal County will be offering a Joint Area Study process. These Joint Studies will be open to any municipality or Indian Community, and can be done with multiple municipalities and Indian Communities.

Joint Area Studies will allow for greater focus on specific areas than can be accomplished in the overall Comprehensive Plan update. They will also allow for much more interaction with property owners, so the County, municipalities and Indian Communities can better understand the owners ideas and goals for their lands.

In order for Joint Area Studies to take effect, the County, Indian Community, city and/or town would need to amend their General or Comprehensive Plans. The County would process these as Area Plans. Approving these amendments will be at the discretion of the Board of Supervisors and the councils of the communities that are participating. If these amendments are approved by all parties they will create opportunities for coordinated reviews of development proposals.

Joint Area Studies can focus on the following areas:

- Land uses, proposed and existing
- Existing zoning and platting
- Transportation planning
- Cost of development
- Provision of infrastructure
- Provision of services
- Schedules of development
- Growth management goals
- Any other municipal or County goals

The City of Casa Grande is planning rural and agricultural land uses primarily at the outskirts of their community. The City would like Pinal County to reflect their goals for these areas. The County proposes one or more Joint Area Studies for these areas. The Joint Studies will allow for participation between the County, Casa Grande, and other nearby municipalities and Indian Communities. These Studies will also allow property owners and other interested parties to become integral parts of the process.

Gateway/Superstition Vistas Growth Area

Gateway/Superstition Vistas is located in the north portion of Pinal County where the East Valley and Phoenix-Mesa Gateway Airport area meet Pinal County. The 275-mile area is entirely in Pinal County and is managed by ASLD on behalf of the state trust beneficiaries. The entire area is very dynamic and undergoing varying degrees of planning by many different jurisdictions and entities.

Superstition Vistas is currently going through a visioning process to determine development goals which should be completed in 2009. Additionally, a more detailed master planning project is being

completed for a 12-square mile area called Lost Dutchman Heights; this is located just north of Superstition Vistas within the City of Apache Junction. The developer of Lost Dutchman Heights is conducting the study through an agreement with ASLD. The community of Gold Canyon, a primarily suburban residential area with some local commercial development, adjoins the area to the north. In Maricopa County, immediately to the west, the City of Mesa is working to encourage economic development at the Phoenix-Mesa Gateway Airport and private interests are moving forward in developing a mixed use master plan for the previous General Motors Proving Grounds area. Expansion of airport operations, continued development of the Arizona State University Polytechnic Campus, and employment development in the area will continue over the next decade in the airport's vicinity. Future planning in the towns of Florence and Queen Creek will impact development in the area. All of this planning within the region will set the tone for future development.

ADOT is continuing to study potential major freeway corridors that provide improved regional transportation access. With the extension of the SR 802 (Williams Gateway Freeway) into Pinal County linking Superstition Vistas to Loop 202, this Growth Area will become economically viable to develop.

Superstition Vistas has been described as the jewel among Arizona's trust lands. Its strategic location in the path of metropolitan Phoenix growth, and its environmental assets within and adjacent to these areas, make it a highly marketable piece of property. The area is bordered by thousands of acres of public land managed by the Tonto National Forest and U.S. Bureau of Land Management. Superstition Vistas lies immediately south of the Superstition Mountains Wilderness Area.

Superstition Vistas is extremely large and offers an opportunity to develop in a more sustainable pattern and serve as a model for

large-scale master planned communities statewide. Superstition Vistas is approximately the size of California's San Fernando Valley and twice as large as Irvine Ranch in southern California's Orange County. If it were overlaid on the East Valley, it would cover nearly all the cities of Mesa, Gilbert, Tempe and Chandler.

Physically, Superstition Vistas provides a wide range of natural assets from craggy cliffs and deep canyons to lush desert with Creosote bushes, Palo Verde trees and Saguaro cacti. Superstition Vistas includes areas that are very developable and other areas that include more development challenges due to topographic constraints. Due to the vast alluvial plains present, the area is host to a network of washes. Many of these washes are of sufficient size to be regarded by the U.S. Army Corp of Engineers as "waters of the U.S. or jurisdictional waters." Designation of "jurisdictional waters" means that before such washes can be disturbed for development, the U.S. Army Corps of Engineers must issue a permit under the "Section 404" process. In recent years, the Corps of Engineers and the U.S. Environmental Protection Agency have become active in reviewing development proposals. Tribes under the Clean Water Act are allowed to develop Water Quality Standards and apply for "Treatment as a State," therefore, Native American communities should be consulted when washes are "distributed for development" especially if these areas are upstream. It is likely that numerous washes in the Superstition Vistas area will affect what is developed and how it is developed.

An **alluvial plain** is fairly flat, gently sloping landform found at the base of mountain ranges. The geography requires careful planning so that drainage patterns are preserved.

The Gateway/Superstition Vistas Growth Area offers development opportunity for Pinal County to showcase a new approach to sustainable development that integrates the environment, multimodal transportation, economic development, and an efficient land use pattern. It is anticipated that more than 800,000 or even more than one million people will one day live within Superstition Vistas. Population, urban living trends and water resources are all forces that will shape the future of Superstition Vistas. Additional

trends are likely to shape future urban lifestyles: aging of the baby boomers; more diversity; rising transportation costs; more technology and telecommuting; and embracing new ways of designing communities.

The land use and transportation networks depicted in the Comprehensive Plan for Superstition Vistas should be considered preliminary and conceptual in nature. It is intended that substantial flexibility be retained for the ongoing Superstition Vistas visioning process to establish more refined land use and transportation networks for the area. For example, areas identified in this Plan as vast expanses of residential housing are not intended to be uniform single-use districts (*see Alternative Land Uses – Moderate Low Density Residential in this Chapter*). The outcome of the Superstition Vistas visioning process will be adopted as an amendment to this Plan when completed. It is important to note that the Superstition Vistas vision could take well over a half century to realize and will need to be flexible to respond to changing circumstances.

The land use and Activity Centers currently identified for Superstition Vistas in this Plan are conceptual placeholders for a more refined breadth of neighborhood, village, town and urban centers. The Plan currently identifies four High Intensity Mixed Use Activity Centers and significant employment areas along the proposed SR 802 corridor and Magma railroad. Superstition Vistas Activity Centers are generally described as follows:

1. The Williams Gateway Freeway Activity Center, located in Township T1S-R8E close to the Maricopa County border, is a high-intensity activity center that includes medium and high density residential development. Buildout population associated with this residential development could accommodate approximately 21,000 people. Approximately 300 acres of various employment types are

also identified for planning purposes that could result in the potential for 29,000 jobs in this Growth Area.

2. The North Pinal Junction Activity Center, located approximately four miles east of the Williams Gateway Freeway Activity Center, could include a diverse high-intensity mixed use development area containing a regional shopping mall, big box commercial, industrial, business park and office development, a hospital with medical offices, and a medium and high density residential component. Approximately, 16,000 jobs could be accommodated with a residential population estimated at 11,000.

3. The Central Vistas Activity Center, located approximately three miles southeast of the North Pinal Junction Activity Center, features employment areas that could accommodate 6,300 jobs, a regional mall, big box retail, medical center, and community college with medium and high density residential that could one day accommodate 10,900 residents.

4. The Florence Junction Activity Center, located nine miles east of Central Vistas Activity Center, is anticipated to be focused on employment development due to its strategic location. This high intensity activity center could include a mix of industrial, business park, low intensity office, regional commercial and big box development that could create approximately 28,000 jobs. The residential component of medium and high density residential could accommodate a population of approximately 11,000.

The Plan identifies many miles of new freeways and miles of principal arterials in the Gateway/Superstition Vistas Growth Area at buildout. Typically the principal arterials are spaced two miles apart from one another. Corridor preservation should occur so

that the roadways needed to serve the development remain designated for roadway construction. Regionally significant routes and regional transit service initiation and/or upgrades should be completed in the Growth Area at the same pace as development occurs.

Planning Guidelines

The following "Planning Guidelines" are intended to provide direction and guidance to potential landowners or developers, staff and elected or appointed officials in developing Superstition Vistas.

Urban Form Planning Guidelines

- ✓ Encourage a mixture of land use, densities, and intensities at an appropriate scale.
- ✓ Incorporate buffers or transitions where needed to encourage compatibility with surrounding land uses.
- ✓ A wide variety of housing types, sizes, designs, and densities in an appropriate and complimentary fashion within neighborhoods and urban centers are encouraged.
- ✓ Discourage incompatible land uses or intensities of developments that are not compatible with surrounding land uses.
- ✓ Develop mid and high intensity mixed use activity centers that support a pedestrian-oriented urban environment, supports alternative vehicles and promotes transit-oriented development.
- ✓ Design of mixed use activity centers, employment, and residential areas to be linked through inter – and intra-multimodal transportation corridors.
- ✓ Encourage the integration of public facilities and civic spaces within the Growth Area.
- ✓ Place higher density housing near commercial centers, job centers, and along multimodal corridors.

- ✓ Concentrate urban mixed use development in compact centers or districts (rather than letting it spread out in strips).
- ✓ Incorporate transit-oriented design features.
- ✓ Locate compatible land uses and buffers along major transportation corridors (e.g. U.S. 60, SR 79, SR 802, the railroad, and potential future roadways or commuter rail) and protect the viability of these as economic development opportunities.

Environment Planning Guidelines

- ✓ Integrate the natural environment with the built.
- ✓ Utilize a comprehensive approach to environmental planning within Superstition Vistas.
- ✓ Encourage development in areas where impacts can be mitigated or in less sensitive land areas to minimize impact to the environment.
- ✓ Conserve the environmentally-sensitive land areas through innovative site planning or preservation as open space.
- ✓ Develop a comprehensive network of trails, open space, parks, and recreational facilities and amenities that connects to a regional system.
- ✓ Preserve wildlife corridors and prevent excessive habitat fragmentation.

Energy Efficiency Planning Guidelines

- ✓ Seek to reduce vehicle miles of travel (VMT).
- ✓ Align streets to encourage energy efficiency.
- ✓ Orient buildings and encourage energy efficient site design.

Transportation Planning Guidelines

- ✓ A full range of multimodal transportation options that include pedestrian, bicycle, equestrian, rail and motorized transportation facilities should be included to provide local and regional connectivity.

- ✓ Promote walkable built environments with safe, comfortable and convenient pedestrian-oriented facilities within the core areas.
- ✓ Incorporate a range of multimodal transportation options supported by appropriate land uses.

Economic Sustainability Planning Guidelines

- ✓ Encourage employment generating land uses that create high quality jobs that will provide a higher wage with benefits than the current County-wide average wage.
- ✓ Superstition Vistas should be an important contributor to the County's jobs to population balance.

Growing Smarter legislation requires that counties confer with the State Land Department "for the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the county." ASLD in collaboration with public and private partners is engaged in an extensive visioning and planning process that when completed may result in an amendment to the Pinal County Comprehensive Plan.

West Pinal Growth Area

The West Pinal Growth Area is described as the area south of the Gila River Indian Community, excluding the Ak-Chin Indian Community, encompassing much of the MPAs of the cities of Casa Grande, Eloy, Coolidge, Florence and Maricopa. It is the heart of the aforementioned Sun Corridor Megapolitan area.

West Pinal includes the urbanizing area bordering the Native American communities. Over the past five years, the growth in this area has been significant. The City of Casa Grande has seen the expansion of new housing and commercial development. Additional growth is anticipated in this area due to its major transportation

assets including I-8 and I-10 as well as good rail access. Current development trends are moving southward from Maricopa County and substantial development has been approved in this Growth Area.

The junction of I-8 and I-10 is an extremely important cross-road for Pinal County. This junction is a focal point for moving goods through Central Arizona from the ports at Long Beach and Los Angeles and destinations beyond. This Growth Area will see more economic and community development or redevelopment over the next decade.

Large quantities of employment and commercial land uses have been designated within municipal planning areas and additional mixed use activity centers have been identified in the Plan. As municipalities expand, the West Pinal Growth Area will require a collaborative, strategic growth strategy to plan for the maximization of economic opportunities, minimizing congestion, and enhancement of the area's quality of life. The Native American communities (Gila River Indian Community, Ak-Chin Indian Community, and Tohono O'odham Nation) have expressed concerns about the impact surrounding growth has upon their borderlands and areas designated as Traditional Cultural Places (TCP) of the Hohokam. Trespassing, dumping, cut-through traffic, and safety concerns need to be addressed regionally as growth occurs. This Growth Area also includes the existing unincorporated communities of Arizona City and Stanfield that will continue to be impacted by surrounding growth and land use changes.

Within the West Pinal Growth Area, the Plan identifies a mix of High and Mid Intensity Mixed Use Activity Centers and numerous large parcels of employment land identified by the municipalities within the West Pinal Growth Area. The development of these activity centers and employment areas will significantly add to the job base of Pinal County. The residential development planned

within the activity centers, will also change the development pattern considerably within this Growth Area.

Red Rock Growth Area

The Red Rock Growth Area is comprised of an area from the Pima County line north along I-10 to south of the Picacho Peak State Park. This Growth Area is designed as a true mixed use residential and employment node that will serve as a critical link between Southern Pinal County and Northern Pima County, in the heart of the Sun Corridor.

Development is already making its way up the I-10 corridor out of the metropolitan Tucson area, accelerated by the UPRR switching yard, Pinal Airpark, and economic development efforts by the Town of Marana. However, one of the major catalysts for economic development within the Red Rock area is the construction of the new UP freight classification yard and other rail and infrastructure improvements planned by UP. This development is anticipated to foster and spin off other rail- and non-rail related business and industrial development in Southern Pinal County for many years to come. Housing development is already occurring in the Red Rock area and will continue. Potential impact to the surrounding land uses is the commercial airliner take-offs and landings from Pinal Airpark.

Corridor preservation should occur so that the roadways needed to serve the development remain designated for roadway construction. Regionally significant routes and regional transit service initiation and/or upgrades should be completed in the Growth Area at the same pace as development occurs.

The mountains, recreation opportunities and proximity to a large metropolitan area will make this an attractive place to live. The Land Use Plan identifies High Intensity Mixed Use Activity Centers

and large parcels of employment land within the Red Rock Growth Area. Additionally, the Growth Area offers opportunities for post secondary education and health care facilities.

Tri-Communities Growth Area

The SR 77 corridor extending from the Tucson metropolitan area through Oracle Junction to the Town of Mammoth is the spine of the Tri-Communities Growth Area. Growth is anticipated to occur in this area due to its proximity to Tucson, state highway access and environmental resources. However, careful planning is encouraged to balance growth with the watershed concerns, wildlife values and eco-tourism economic development potential of the San Pedro River area.

A large master planned community is already being developed at SaddleBrooke Ranch in the western part of the Growth Area, and BHP mining company has completed a significant planning process for the development of San Manuel. The Town of Mammoth implemented a large annexation for the Cielo Master Planned Community that could include 3,500 homes located on the north side of SR 77. This large annexation allows the Town to proactively manage future growth in the region.

In Pima County, adjacent to the Growth Area, a 9,106-acre master plan called Arroyo Grande is being conceptually planned on Arizona state trust lands. This area is immediately north and west of the unincorporated community of Catalina and the Town of Oro Valley.

This Growth Area is also home to the Biosphere 2 Facility. The 40-acre campus includes the 3.14-acre Biosphere structure. The University of Arizona assumed management of Biosphere 2 in June 2007. The mission is to serve as a center for research, outreach, teaching and life-long learning about Earth, its living systems, and

its place in the universe. The enclosure serves as a laboratory to support research aimed at quantifying some of the consequences of global climate change.

The Tri-Communities Growth Area is also the gateway to the Copper Corridor (Hospitality/Tourism Corridor). This corridor includes tremendous environmental assets and sensitive land areas such as the San Pedro River, Oracle State Park and Coronado National Forest. The area offers eco-tourism and outdoor recreation opportunities, while affording a very rural lifestyle for its residents. Employment opportunities are needed here as many current residents are commuting to Tucson for work. This long commute is getting more costly and difficult as fuel prices and traffic volumes continue to rise.

Corridor preservation should occur so that ADOT and the County will be able to upgrade SR 77 to principal arterial standards.

The Tri-Communities Growth Area identifies High and Mid Intensity Mixed Use Activity Centers at Oracle Junction, a Mid Intensity Activity Center in San Manuel and Low Intensity Activity Centers in Oracle and Mammoth.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

3.5 Goal: Concentrate development and encourage an appropriate range of land uses within Growth Areas in collaboration with and compatible to surrounding communities.

3.5.1 Objective: Encourage development within Growth Areas to occur in a coordinated and balanced fashion.

Policies:

3.5.1.1 Develop and approve specific plans for each of the Growth Areas that identifies the vision and provides a more detailed study and analysis of the area including specific recommendations on land use, circulation, open space, design guidelines and infrastructure. If Growth Areas are located in municipal planning areas, develop these plans with the municipalities whenever possible.

3.5.1.2 Encourage the municipalities to adopt the County's jobs per capita goal of 500 jobs per 1000 residents to promote the County's economic viability.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.5.1.3 Maintain and monitor public facilities and service levels and capabilities within Growth Areas.

3.5.1.4 Evaluate within Growth Areas the cost and benefits of all major projects to assist in decision-making.

3.5.1.5 Encourage Growth Areas to be a major component of any overarching economic development plan of current and future organizations such as Central Arizona Regional Economic Development Foundation or Economic Development Group of Eloy.

3.5.1.6 Identify and protect potential employment land within the Growth Areas.

3.5.1.7 Within each Growth Area, specific plans should encourage an economic development framework compatible with the Growth Area and aligned with the County's overall vision.

3.5.1.8 Continue the growth of regional economic opportunities to encourage distribution of quality jobs and investment within Growth Areas.

3.5.1.9 Support economic vitality throughout Growth Areas, by monitoring economic vitality indicators, such as the balance of jobs, job compensation, and housing mix.

3.5.1.10 Encourage the consideration of the natural environment including wildlife habitat, washes, surface and groundwater quality and quantity, and air quality as an integral component of planning within Growth Areas.

3.5.1.11 Encourage the integration of the built and natural environment.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.5.1.12 Preserve existing stable and distinct neighborhoods by buffering and transitioning land uses.

3.5.1.13 Encourage the creation of a balanced multimodal transportation system, less dependent on the private automobile, supported by both the use of emerging technology and smart growth planning principles that encourage the location of jobs, housing, commercial activity, parks, and open space in close proximity.

3.5.1.14 Facilitate collaborative planning and economic development within each Growth Area.

3.5.1.15 Update the Capital Improvements Plan (CIP) every two years to address Growth Area infrastructure to facilitate timely and efficient development.

3.5.1.16 Coordinate the delivery of critical infrastructure with municipalities and the private sector in order to provide for the timely development of the Growth Area.

3.5.1.17 Support higher density residential development and land use intensity within Growth Areas where the physical infrastructure (water, sewer, etc.) and public facilities/services can be provided.

3.5.1.18 Encourage Growth Area infill development to minimize sprawl and maximize the investment that has been made in infrastructure and public facilities.

3.5.1.19 Encourage preservation of open space and land acquisition through land exchanges, purchase or transfer of development rights to protect habitat areas to avoid fragmentation.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

Gateway/Superstition Vistas Growth Area

3.6 Goal: The Gateway/Superstition Vistas Growth Area will be a demonstration model for sustainable master planning in Arizona that maximizes the area's strategic location and integrates the natural environment.

3.6.1 Objective: Promote a sustainable mixed use development pattern that strengthens the linkage between land use and multimodal transportation.

Policies:

3.6.1.1 Contribute to a vibrant and successful economy recognizing that the quality of life, natural beauty, environmental diversity and the uniqueness of the Superstition Mountains are important elements to attract and keep business.

3.6.1.2 Cooperate with Pinal County, Maricopa County and neighboring jurisdictions to coordinate infrastructure planning and development which is critical to economic development.

3.6.1.3 Support the following: job and housing balance be maintained over time to the extent feasible; good quality jobs are created for people of all ages; economic catalysts are developed to spark job growth in advance of housing growth; the provision of infrastructure is timed with development needs.

3.6.1.4 Cooperate with regional economic development efforts to achieve economic success and prosperity for Superstition Vistas and the region.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.6.1.5 Support the development of an educational system that results in an educated workforce in all segments of the community and includes training for a wide range of job skills and recognizes that the development of one or more universities could be a major economic catalyst.

3.6.1.6 An employment land use connection between the two proposed employment centers along the Magma Arizona Railroad may be considered once the alignment for the north/south freeway is selected and the need for additional rail served industrial in the area is determined. The employment centers within Superstition Vistas were located based on multi modal access required to service employment uses. Additional employment along the rail corridor and elsewhere will be based on multi modal access or specific demand as determined by future studies.

3.6.1.7 Recognize the need for a broad range of housing choices, in location (both suburban and urban), style and size, and to allow residents of all incomes and ages to live in Superstition Vistas in order to meet market demand and make Superstition Vistas a desirable place to live.

3.6.1.8 Encourage a variety of suburban and urban environments that offer healthy and vibrant lifestyles from quiet low density neighborhoods to high density urban cores offering round-the-clock activity.

3.6.1.9 Recognize that quality housing, jobs, education and health care improve the quality of life and increase project marketability.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.6.1.10 Arizona State Land Department determined that it is appropriate that residential development north of Highway 60 designated as 1-3.5 du/ac land use category shall be limited to an average gross density of 2 du/ac per project and shall develop in consideration of the Environmental Planning Guidelines.

3.6.1.11: Through transportation planning, support multi-modal regional and local travel in an effort to reduce auto use and increase the use of alternative modes of transportation.

3.6.1.12 Cooperate with surrounding jurisdictions and address long term financing strategies for transportation systems early on in planning for transit and multi modal transportation systems necessary to meet future needs.

3.6.1.13 Plan for a coordinated transportation system with the land uses so that people can choose to reduce their reliance on the automobile by living closer to work in walkable neighborhoods, living or working close to transit and living in pedestrian and bicycle friendly areas.

3.6.1.14 Work with ADOT to plan for regional connectivity and coordinate planning for rail, freight, major roads and transit facilities connecting Tucson to Phoenix, and identify transportation corridors in advance of development to support a variety of transportation options for future residents.

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Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.6.1.15 Support comprehensive trail systems for walkability and a green infrastructure network that provides connectivity to schools, shopping and community facilities as well as environmental benefits.

3.6.1.16 Support efficient urban design aimed at conserving, protecting, and enhancing natural and environmental resources.

3.6.1.17 Support balanced development, water conservation and capture, and energy efficient buildings.

3.6.1.18 Recognize the importance of significant wash corridors, threatened and endangered species, the value of the Superstition Mountains and the possibility of incorporating wildlife migration corridors into the community (such as connecting the Gila River to the Superstition Mountains) to contribute to the broader landscape sustainability of the region.

3.6.1.19 Support the development of renewable energy sources, the reduction of high peak demands for electricity and water as well as the reduction of annual water consumption, and recognizes the benefit of reduced net carbon emissions.

3.6.1.20 Recognize the importance of addressing the impact of development on night time temperatures and encourages the preservation and incorporation of native vegetation and the use of current and future best practices in neighborhood and building design to reduce heat islands.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.6.1.21 Recognize that residential buildings built with cost effective energy conservation materials reduces energy consumption and the carbon footprint.

3.6.1.22 Recognize that open space is an essential component of Superstition Vistas, and that parks and natural open space should be connected and easily accessible to all residents.

3.6.1.23 Support the protection of dark skies through lighting standards and practice.

3.6.1.24 For lands to the northeast of the Florence National Guard site that were used for military purposes: when the military relinquishes any portion of the Special Land Use Permit (SLUP) an environmental study should be done to determine if the site requires environmental cleanup due to military or other uses.

3.6.1.25 Support water conservation, water quality protection and current and future best practices to minimize water use and maximize reuse.

3.6.1.26 Strive to minimize the impact on water resources and natural processes as a result of development; support the development of a water conservation program including domestic water supply, storm water management, groundwater recharge, and flood protection; identify and protect groundwater recharge areas; support the development of storm water mitigation strategies.

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3.6.1.27 Encourage the collection and treatment of wastewater for reuse within or outside the project, storm water harvesting, grey water collection for reuse, and groundwater recharge and reuse. These water management efforts can be integrated within the overall community design (urban fabric) to enhance natural washes and community amenities while improving water management efficiency.

3.6.1.28 Provide flood protection in conformance with the regulations in the applicable jurisdiction or county.

3.6.1.29 Analyze and consider the impacts of groundwater subsidence and fissures during the development process.

West Pinal Growth Area

3.7 Goal: The West Pinal Growth Area should become a sustainable, well planned Growth Area in the heart of Pinal County.

3.7.1 Objective: Create a cohesive regional development pattern that results in economic sustainability and compatibility of land uses based upon a regional multimodal transportation system.

Policies:

3.7.1.1 Collaborate with municipalities and private landowners on a West Pinal Growth Area plan that knits together all of the public and private efforts and infrastructure development.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.7.1.2 Explore a regional funding approach to address a comprehensive multimodal transportation system to maximize the Growth Area's strategic location.

3.7.1.3 Encourage development within or adjacent to existing approved service areas to maximize existing investment in infrastructure and public services.

3.7.1.4 Implement a multimodal circulation system that connects the activity centers and employment areas within the Growth Area.

3.7.1.5 Locate compatible land uses along major transportation corridors and protect the viability of these as economic development opportunities.

3.7.1.6 Locate compatible land uses in and around existing and future municipal airports to protect the long-term economic viability.

3.7.1.7 Communicate, coordinate and collaborate with neighboring Native American communities to explore Growth Area economic opportunities and regional transportation linkages while encouraging compatible land uses along borderlands.

Red Rock Growth Area

3.8 Goal: The Red Rock Growth Area will develop as the Southern Pinal County economic center.

3.8.1 Objective: Develop the area as a sustainable employment center that maximizes the strategic multimodal location.

Policies:

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3.8.1.1 Work closely with the UPRR, Town of Marana, City of Eloy, Arizona State Land Department, Pima County and Pinal Airpark to facilitate mixed use development and a diverse economic center.

3.8.1.2 Integrate a range of residential development compatible with surrounding employment uses.

3.8.1.3 Capitalize on the multimodal infrastructure and identify and plan for suitable transit-oriented developments where possible.

3.8.1.4 Buffer and plan for an appropriate transition of development uses from the Picacho Peak State Park and Picacho Mountains.

3.8.1.5 Preserve wildlife linkages and mitigate habitat fragmentation.

3.8.1.6 Promote improvements to Park Link Road and other regionally-significant routes.

Tri-Communities Growth Area

3.9 Goal: Promote compatible development within the Tri-Communities Growth Area that compliments the area's historic pattern and environmental character.

3.9.1 Objective: Preserve the unique natural environment within the Growth Area while enhancing the economic diversification.

Policies:

3.9.1.1 Continue to support economic diversification along the Copper Corridor which is defined as the area along US 60/SR 177/SR 77 from Oracle Junction to Superior that

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compliments the unique environment along the San Pedro River corridor.

3.9.1.2 Establish the Growth Area as the southern gateway to the hospitality and tourism proposed for the Copper Corridor (described in this Chapter).

3.9.1.3 Implement strategies to protect scenic viewsheds and dark skies.

3.9.1.4 Encourage compatible development in environmentally-sensitive areas and minimize impact to the native desert, grasslands and riparian areas.

3.9.1.5 Identify and preserve wildlife corridors and prevent habitat fragmentation, particularly near the San Pedro River.

3.9.1.6 Implement strategies to develop the mixed use activity center in San Manuel recognizing and addressing potential impacts of development near the San Pedro River or to the San Pedro watershed, groundwater and surface water resources.

3.9.1.7 Work closely with BHP to coordinate effective implementation of the BHP San Manuel Property – Conceptual Master Development Plan.

3.9.1.8 Work with the Town of Mammoth in the orderly development of the Cielo Master Planned Community and other developments to promote compatible development.

3.9.1.9 Maintain access to SR 77 to promote safe and efficient movement of traffic.

A **viewshed** is the entire area an individual can see from a given point.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

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3.9.1.10 Consider the development and implementation of a river corridor management plan along the entire length of the San Pedro River in Pinal County.

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Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

Cultural Resources

Introduction

Cultural resources are the nonrenewable items and places that remain from our prehistoric and historic past. They reflect our traditional and cultural heritage. Pinal County has a long history of human presence. Human association with this area began when nomadic groups hunted Pleistocene large animals over ten thousand years ago. Pinal County remained a home for prehistoric peoples for thousands of years.

The presence of the San Pedro and Gila River systems made what is now Pinal County a persistent place of human habitation. The existence of these reliable water sources also made this area an important corridor for travel by people moving between regions, both north-south, and east-west. The San Pedro River Valley is a nationally significant cultural landscape and is noteworthy for the extent and intact-nature of its prehistoric resources.

In recent prehistory, the area was home to extensive farming and trading communities of a people that have come to be known as the "Hohokam." The Hohokam civilization lasted over a thousand years, leaving a very significant number of archaeological resources in this region.

Hohokam is a term derived from an O'odham word "Huhugam" that is often used to reference people and things that have gone before.

Casa Grande Ruins National Monument, in Coolidge, exemplifies one of the largest and best preserved, prehistoric structures ever built in North America. What archaeologists refer to as the Casa Grande "Great House" was constructed during the Classic Period of Hohokam occupation. Archeological resources within Casa Grande Ruins National Park date from AD 775-1460, but the best

preserved examples of Hohokam culture date to the 13th to 16th centuries.

The modern name for this structure reflects another important element in the fabric of Pinal County's history. Padre Eusebio Francisco Kino recorded the earliest written reference to the structure using the name "Casa Grande" in his journal when he visited the ruins in 1694. The City of Casa Grande takes its name from this important cultural resource. Hispanic culture, from Spanish colonial times through the present, is another unique and fundamental element in the identity of modern Pinal County.

Many cultural groups reside within Pinal County, including the Tohono O'odham Nation, Akimel O'odham, Pee-posh, Ak-Chin Indian Community, Salt River Pima-Maricopa Indian Community, Gila River Indian Community, Pima, Apache, Hispanic, Anglo, African American and Asian communities, and all have connections with cultural resources and historic places located here. Even cultural groups that traditionally reside outside Pinal County, such as the Yaqui, Hopi and Zuni have acknowledged ties to the history and cultural resources of Pinal County. In many ways, it is the interconnection between cultural groups that is provided by our existing cultural resources that help define who we are as a community. A sense of place is integral to maintaining a sense of cultural identity and for preserving the cultural heritage of the citizens of Pinal County.

Cultural resources are finite and non-renewable and include: archaeological sites, historic buildings, historic structures, shrines, monuments, trails, rock circles, historic roadways, and other cultural objects. Examples include rock art sites, prehistoric canal features, pottery, projectile points, and archeological refuse sites. Traditional cultural places and traditional cultural landscapes contain places and areas holding significance meaning to one or more cultural

groups, and often incorporate significant aspects of both the natural and human made worlds.

The City of Coolidge bears not only the name of a President, but a reference to Coolidge Dam. This registered historic structure was constructed between 1924 and 1928, lies partly within Pinal County. The name of the City of Apache Junction contains a reference to the Apache Trail. Originally a foot and horse trail of the Apache Indians, the Apache Trail became a stagecoach route and later a haul and service route for the construction and maintenance of Roosevelt Dam. The Apache Trail was designated Arizona's first historic highway in 1987.

The cultural heritage of Pinal County consists of overlapping layers of history that have evolved over time into a rich and dramatic tapestry. Each layer contributes a link to the collective identity we all share. For example, as tangible links to its past, a community's historic buildings provide us with a sense of place, a sense of community and interaction with our past. Outside our urban areas, the spectrum of archaeological sites, mines and mining communities, farming and ranch lands and rural communities illustrate the history of human labor and production that contributes to our sense of place.

Purpose The Comprehensive Plan acknowledges the rich historic legacy inherent to the region and supports policies and recommendations acknowledging that cultural resources are extremely valuable for scientific, historic and environmental research, and as educational opportunities. Cultural resources are also a tremendous asset to expand the tourism industry. This Plan also recognizes the importance of research providing new and more complete information about the lives of ancient Native Americans and their sustainable relationships with desert ecosystems, and the fact that information contained within our

cultural resources could be relevant to solving current and future challenges of living in a desert environment.

Relationship to Pinal County's Vision Heritage and cultural resources within Pinal County have been recognized as a key component of the vision. Cultural resources contribute to the area's uniqueness as well as being an asset for residents and visitors alike.

Strategic Areas

Economic Assets

Economic benefits resulting from cultural resource protection efforts already exist within Pinal County. Examples include Casa Grande Ruins National Monument which attracts more than 75,000 visitors every year, the majority coming from outside of Pinal County. Another example is historic downtown Florence which has been publicized in many tour guides for Arizona. Both tourists and local populations benefit from the protection and preservation of cultural resources. Heritage tourism is also an environmentally clean industry.

The **Certified Local Government Program** is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level.

To coordinate management goals and strategies, an advisory board consisting of professionals in the fields of archaeology, architecture, and historic preservation should be formed consisting of representatives of each government and agency with responsibilities for protecting cultural resources in Pinal County. Pinal County may seek to become a member of the Certified Local Government Program, as this too could enhance the County's capabilities to share information with other preservation organizations on the state and national level. This program could also assist with obtaining federal funding, establishing standards and responsibilities and in garnering community support.

Federal and State Agencies

The National Historic Preservation Act of 1966 establishes the role of the Federal government in partnership with state agencies, local governments, Native American communities, and federal agencies in preserving significant prehistoric and historic cultural resources within the United States. The Secretary of the Interior has established standards and guidelines for the documentation and preservation of resources that are significant in American history architecture, archaeology, engineering, and cultural affiliations. Federal agencies assist with the management of cultural resources through a series of Historic Preservation Programs.

Within Arizona, the State Historic Preservation Office (SHPO) and the Arizona State Museum (ASM) assist individuals and groups in the identification, evaluation, protection, and enhancement of historic and archaeological properties. SHPO is responsible for nomination of eligible historic and archaeological properties to the National Register of Historic Places, for performing statewide surveys to identify and evaluate historic structures and archaeological sites, and for reviewing federal and state actions that may affect historic and archaeological properties. They present public education and awareness programs and offer technical assistance to owners of historic properties, local governments and local preservations commissions. The Arizona Register of Historic Places adopted the National Register criteria for evaluating eligibility of the state's districts, sites, buildings, structures, and objects worthy of preservation.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

3.10 Goal: Conserve cultural resources throughout Pinal County.

3.10.1 Objective: Compile a list of highly significant Pinal County cultural resources and encourage the protection of significant concentrations of archeological, historical and other cultural resources.

Policies:

3.10.1.1 Encourage nominations to the National Register of Historic Places.

3.10.1.2 Encourage the conservation, restoration and preservation of those properties already listed.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.10.1.3 Encourage intergovernmental cooperation in cultural resources management.

3.10.1.4 Seek adaptive uses of cultural resources as an alternative to demolishing or significantly altering historic structures.

3.10.1.5 Explore the possibility of adopting a comprehensive cultural resource conservation ordinance.

3.10.1.6 Conduct surveys and evaluations for cultural resources as required by the Arizona Antiquities Act, the State Historic Preservation Act, the National Historic Preservation Act and other applicable laws, regulations and guidelines.

3.10.1.7 Encourage property owners to conduct cultural resource surveys on significantly sized projects, or projects which are located in proximity to areas identified as having cultural resources.

3.10.1.8 Implement mitigation measures for cultural resources as required by the Arizona Antiquities Act, the State Historic Preservation Act, the National Historic Preservation Act and other applicable laws, regulations and guidelines.

3.10.1.9 Work with owners of properties with significant cultural resources to identify alternative funding sources to avoid, reduce or mitigate impacts to the resources.

3.10.1.10 Identify appropriate treatment measures to be taken when significant prehistoric, historic or archaeological

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sites, buildings, structures and objects may be adversely impacted.

3.11 Goal: Inform the citizens of Pinal County about our rich and diverse cultural history.

3.11.1 Objective: Foster education and outreach partnerships with public agencies and private organizations whose goals and objectives promote preservation of the region's heritage.

Policies:

3.11.1.1 Identify and encourage the development of specific cultural heritage sites within the County as public education and outreach projects.

3.11.1.2 Encourage education and outreach partnerships with public agencies and private organizations whose goals and objectives promote preservation of the region's heritage resources.

Aggregate Mining

"Aggregate" means cinder, crushed rock or stone, decomposed granite, gravel, pumice, pumicite, and sand. (A.R.S. §11-801) "Aggregate mining" means clearing, covering or moving land using mechanized earth-moving equipment on privately owned property for aggregate development and production purposes, including ancillary aggregate finished product activities. Aggregate mining includes an operation that mixes or recycles rock, sand, gravel or similar aggregate materials with water and cement or with asphalt. Aggregate mining does not include surveying, seismic work, exploration or maintenance activities that create a de minimis land disturbance. (ARS § 27-441)

Aggregate material is typically extracted from dry river beds and washes, although it can also be found in other locations. All aggregate excavations located in flood or erosion hazard zones must meet the County's Flood Plain Ordinance. While aggregate mining is an important and necessary part of our economy; noise, light, dust, and traffic from aggregate mines can affect the quality of life of nearby residents.

As of October 1, 2011, A.R.S. §11-804 (e) mandates the County to include the following information on aggregate mining in the Comprehensive Plan:

"Currently identified sources of aggregates from maps that are available from State Agencies, policies to preserve currently identified aggregates sufficient for future development and policies to avoid incompatible land uses, except that this subdivision should not be construed to affect any permitted underground storage

facility or limit any person's right to obtain a permit for an underground storage facility pursuant to Title 45, Chapter 3.1."

Maps of currently identified sources of aggregates are not yet available from State Agencies, and the following text is a good faith effort to follow these mandates:

Goals, Objectives and Policies

3.12 Goal: Identify sources of aggregates in the Comprehensive Plan when maps identifying such resources become available from State Agencies.

3.13 Goal: Once aggregate resource maps become available from State Agencies, identify policies to preserve the resources to the extent that the aggregates will be needed for future development.

3.14 Goal: Protect aggregate mining opportunities while also safeguarding residents' quality of life.

3.14.1 Objective: Use open space, land use transitions, and other techniques to provide appropriate buffers between aggregate mining and residential land use.

Policies:
3.14.1.1 Encourage appropriate buffers to mitigate conflicts between aggregate mining and residential land use except that, as specified in State Law, this does not affect any permitted underground storage facility or limit any person's right to obtain a permit for an underground storage facility pursuant to Title 45, Chapter 3.1.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibility of implementing these Policies and these policies appear in **plain text**.

3.14.1.2 Encourage mines to identify and protect key open spaces, corridors and linkages during mine planning.

3.14.1.3 Encourage mining operations to adopt noise reduction programs.

3.15 Goal: Encourage mine reclamations that support the Comprehensive Plan.

3.15.1 Objective: Promote appropriate post-mining land uses.

Policy:
3.15.1.1 Encourage the use of closed aggregate mines for parks, trails and open spaces where appropriate.

Public Responsibilities, those that are primarily incumbent on the County to implement through its policy development and planning, appear ***italicized***.

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Chapter 4: Mobility and Connectivity

Multimodal Circulation

Introduction

Strategically located between the metropolitan Phoenix and Tucson areas, Pinal County is traversed by I-10 and the Union Pacific Railroad's (UPRR) "Sunset Route" main line. Other key transportation corridors include I-8 from San Diego and Yuma, which joins I-10 at Casa Grande; US 60, which connects Apache Junction with Gold Canyon and Superior; SR 347, which connects I-10 near Phoenix with the City of Maricopa; SR 287 and 387, which connect Casa Grande, Coolidge, Eloy, and Florence with each other and with I-10; SR 77, which connects the communities of eastern Pinal County with Tucson; and SR 79, which ties Florence, the county seat, to both US 60, SR 77 and SR 238. Pinal County roadways are essential to the mobility of County residents and serve as corridors by which Arizonans and other motorists travel.

Both I-10 and the UPRR are major freight corridors and routes by which Southern California ports distribute vast amounts of goods from Asian markets to the Southwestern and Southern United States. Up to 50 percent of the vehicle traffic on I-10 consists of commercial trucks; UPRR's mostly single-track Sunset line is saturated with over 50 trains per day. The Phoenix Subdivision of the UPRR passes through Coolidge before joining the UPRR main line at Picacho. Nine public, general aviation airports are located within Pinal County.

Substantial and ongoing growth within the County presents a significant transportation challenge—not only within the County, but throughout the region and state. Providing safe and efficient multimodal transportation that links Pinal County communities and also connects with the Phoenix and Tucson metropolitan areas, is

critical to the County's quality of life and continued economic growth.

Purpose The Multimodal Circulation element explains how Pinal County, in partnership with other governments, residents, and the business community, will work to provide a multimodal transportation system to serve the County's needs at buildout and to be continuously improved after buildout. The transportation system moves goods and people among the economic activity centers and other areas. Implementation of the circulation element will provide a robust network that will adapt and perform well as demographics shift, technology advances, and energy sources change, while the natural environment is sustained.

The transportation facilities envisioned for Pinal County are depicted on the Multimodal Circulation maps. These facilities include a roadway hierarchy that comprises Interstate highways, high capacity roadways, parkways, and arterials. Many of the roadways will be multimodal with transit, freight, and passenger traffic sharing the travel lanes. Other roadways and transitways could share multimodal corridors with separate lanes dedicated to various modes. Both potential demand and a suitable location for a commercial airport exist in the central portion of Pinal County at a location that will more than likely develop into a high intensity activity center whether or not it eventually includes an airport.

Relationship to Pinal County's Vision Pinal County should strive to serve persons with multimodal transportation options in transportation corridors at appropriate locations. Multiple mobility and communication options throughout Pinal County will reduce congestion and improve air quality while enhancing the area's quality of life. The history and culture of Pinal County will be honored by providing a transportation system that strengthens traditional activity centers. The journey will be part of a memorable experience along the hospitality/tourism and Pinal Parkway

corridors. The transportation network will be located to avoid or mitigate effects on environmentally sensitive areas.

An urban transportation system in much of western Pinal County will mesh with a more rural system in the East and in the Ak-Chin Indian Community, Gila River Indian Community, Tohono O'odham Nation, and San Carlos Apache Indian Reservation, in order to support and maintain the Vision, in terms of both the desired quality of life and economic sustainability.

A transportation system to serve the residential densities expected in the western part of the County calls for roads of at least regionally significant (principal arterial or higher) class to be spaced typically at two-mile intervals. These roadways will carry people as they travel, shop and go about other activities. Travel should be smooth and safe with as little traffic congestion as possible.

All regionally significant routes will be suitable for regional transit. As fuel costs fluctuate over the next several decades, the network will accommodate adjustments in travel behavior associated with fuel cost changes. Wireless communications networks will facilitate telecommuting. Future transportation technology will likely offer vehicles that emit little pollution or greenhouse gases. The location and character of Pinal County's roadway network will be as suitable for these vehicles as the existing fleet. There will be a much larger number of elderly persons in the County and transit will be the most suitable option for many of them.

While a major freight corridor already exists via I-10 and the UPRR Railroad, other roadways are not now optimal for freight transportation within or through the County. Once additional major roadways are built, the distribution of freight over routes that are reasonably direct will be an economic advantage for Pinal County.

A portion of the transportation system that is more rural, to serve lower population densities in parts of Pinal County, will benefit the entire County. There will be less redundancy in the eastern County network than in the west. Many residents will have chosen eastern Pinal County because of their preference for a less altered natural landscape. The San Pedro River is a sensitive area requiring special care in transportation corridor planning. In Pinal County, telecommuting may become common enough to reduce commuting travel demand.

Limiting disruption of the landscape by roadway corridors is compatible with the County's decision to set ambitious goals for open space preservation. The *Pinal County Open Space and Trails Master Plan, 2007* included extensive inventories of the natural elements in Eastern Pinal County. The Plan defines an open space system in the following manner: "An open space system conserves elements of existing resources such as natural scenic beauty, view corridors, wildlife habitat, agricultural resources, and cultural heritage for the benefit of present and future generations." Air quality, low levels of ambient noise, and other environmental resources are supported by this Plan.

Strategic Areas

Roadways

Three classes of regionally significant roadways are part of the existing Pinal County road network. The classes are defined below and the characteristics of the roadways in each class are described in the subsequent section.

Interstates provide a high level of mobility and safety for people and goods for interstate and interregional trips. Interstate highways

have fully controlled access provided only at grade-separated traffic interchanges. No direct access is permitted from adjacent properties. The primary characteristics of the Interstate highways are the following:

- Provide mobility for through traffic
- Connect the County with Phoenix, Tucson and other destinations
- Provide connections to major cities in other states
- Connect County urban areas with high- and mid-intensity activity centers
- Connect to high capacity roadways and significant routes
- Provide access to other roadways via grade-separated interchanges
- Provide a high level of safety

High Capacity Roadways are designed to serve residents and economic activity centers in the more densely populated portions of the County. Their primary characteristics are the following:

- Provide mobility for through traffic
- Meet the high capacity travel demand where there are no Interstate highways
- Foster development of High and Mid Intensity Activity Centers
- Support the development and operation of a commercial airport
- Provide access to other roadways via grade-separated interchanges
- Provide a high level of safety

Principal Arterials are provided throughout the County. The Pinal County principal arterials are generally spaced at two-mile intervals and are designed for the safe and efficient movement of people and goods at a high level of service. Safety and mobility

are maximized, in part, by managing access to principal arterials. The primary characteristics of all types of principal arterials are:

- Provide a high level of service for automobiles and transit, reducing travel times
- Provide a high degree of access management
- Provide a high level of safety
- Provide connectivity between urban areas and High, Mid, and Low Intensity Activity Centers
- Provide connectivity to the state highway system and major urban arterials
- Provide continuity across the County and through urban areas

Current Situation, Deficiencies, and Issues

Many government officials and the public have recognized two related transportation system challenges in Pinal County: how to meet travel demand on major routes that cross the County, and how to meet travel demand from growth within the County. Many studies have addressed these challenges at various scales, and their results were considered in devising this Plan, including:

- Casa Grande Small Area Transportation Study
- City of Maricopa Small Area Transportation Study
- Coolidge-Florence Regional Transportation Study
- Eloy Small Area Transportation Study
- High Speed Rail Study Update Phase I and Draft Phase II
- I-10 Corridor Study for I-8 to Tangerine
- I-10 Phoenix-Tucson Bypass Study
- I-10 Widening Study – Loop 202 to I-8
- I-10 Widening Study Design Concept Report/Environmental Assessment
- I-8/I-10 Hidden Valley Roadway Framework Study
- Maricopa-Casa Grande Highway Project Assessment
- Maricopa Regional Transportation Plan

- Maricopa Transit Study
- Pinal County Corridors Definition Studies
- Pinal County Regionally Significant Routes for Safety and Mobility Plan
- Rural Transit Needs Study Report
- Southern Pinal Co./Northern Pima Co. Corridor Definition Study
- SR 347 UPRR Grade Separation Feasibility Study

The studies' observations and additional analysis tailored to the County-wide Comprehensive Plan are discussed for each major type of roadway below.

Interstate I-10 crosses the County from northwest to southeast, while I-8 enters the County from the west and ends at I-10 south of Casa Grande. Major cities served by I-10 in neighboring states include Los Angeles and El Paso. I-8 continues west to San Diego.

- Currently, no limited-access routes serve as alternatives to either I-8 or I-10.
- Keeping traffic interchanges widely spaced on the two Interstates enhances mobility. The current lack of connectivity in the remainder of the County system, however, leads to pressure to add interchanges.
- Currently, I-10 carries a great deal of truck freight traffic. Freight transportation is currently being enhanced by coordinating the development of the Interstates with development of intermodal freight hubs.
- Congestion along I-10 often slows long-distance travelers in the County. When crashes or other incidents occur along I-10, many travelers experience unexpected delays—this is a reliability issue.
- Widening of I-10 in Pinal County from four lanes to six lanes is under construction in 2008 between Picacho and the Pinal/Pima county line. Widening from four to six lanes

between the Gila River Indian Community boundary and Picacho Peak is programmed for completion in 2010-2012. Continued growth of the megapolitan area would result in unacceptable congestion a few years later, long before Pinal County's buildout.

- Additional widening of I-10 will be required. I-10 is currently being planned for an ultimate width of five lanes in each direction between Maricopa and Pima counties. Funding for the widening of I-10 is not presently committed. The widening of I-10, high capacity regional transit on the corridor, and commuter rail and medium-capacity regional transit may be needed to meet travel demand before Pinal County reaches buildout. Currently, not enough transportation funding exists in the state to address all of the needs.
- Currently, there are few capacity deficiencies on I-8 in Pinal County.

High Capacity Roadway US 60 from the Maricopa County line to Mountain View Road is the only non-Interstate high capacity roadway in Pinal County. US 60 is an east-west freeway in Maricopa County which extends from the county line east into Pinal County for four miles.

- Implementing measures to ease congestion until more high capacity roadways can meet travel demand is a challenge.
- Implementing the tools needed to preserve the corridors now is a challenge, as is funding the acquisition of right of way in time to build roadways in appropriate locations to meet travel demand. Initially constructing new roadways to freeway standards may be more cost-effective than retrofitting them later.

Additional proposed high capacity roadways identified in other plans and incorporated into this Multimodal Circulation element include the following. All of the alignments are tentative and subject

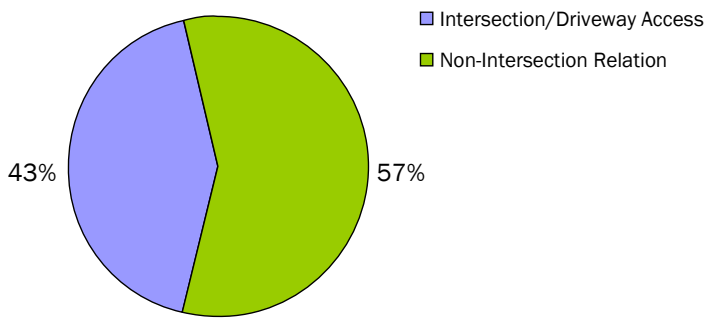
to change during those future studies whose purpose is to set more specific alignments.

- Proposed North-South Freeway connecting US 60 to I-10
- US 60 Bypass around the Gold Canyon area which includes an option to connect to the future east-west SR 802 alignment
- Williams Gateway Freeway beginning at SR 202 in Mesa, connecting to the Phoenix-Mesa Gateway Airport, and continuing east to the east end of the US 60
- The east-west potential high capacity corridor, entering Pinal County from far eastern Maricopa County and proceeding east in the vicinity of the Val Vista, Barnes, McCartney, and Bartlett Road alignments, connecting to the North-South Freeway
- The north-south potential high capacity corridor connecting I-8 with the previously described corridor
- A potential high capacity corridor beginning in the Casa Grande-Eloy area and proceeding south, then east to the I-10/Park Link Road interchange

Principal Arterials The need for a regional network of principal arterials in Pinal County has been demonstrated by the continuing growth. The lack of a system of principal arterials has led to the following situation:

- An existing roadway system with limited capacity that lacks continuity and connectivity between activity centers; cities/towns/Native American communities; and state, US, and Interstate routes
- A significant increase in traffic congestion throughout much of the County. A continuous stream of slow-moving traffic along SR 347 between the City of Maricopa and I-10 is common during peak hours. A similar situation exists on Hunt Highway entering and leaving the Johnson Ranch and Florence areas.

4-1: Pinal County Intersection/Driveway Related Crashes, June 2001 – July 2006



Source: Accident System Identification Surveillance System (ALISS) Database

- Safety impacts as congestion levels increase

The *2006 Pinal County Small Area Transportation Study* identified the need for regionally significant routes based on 2025 traffic forecasts on a two-mile arterial grid system. The Ironwood Drive-Gantzel Road project is the first significant route (principal arterial) project to be constructed in the County to the standards outlined in this circulation element. As of early 2008, the project was complete from US 60 south to Combs Road.

System-wide Deficiencies The County has experienced an increase in crashes with population growth. The five-year crash history (mid-2001 to mid-2006) on the current roadway system in Pinal County includes over 17,300 crashes. Figure 4-1 illustrates intersection and driveway crashes. Beyond the impact on those directly involved in a crash, there are effects upon other travelers. For example, SR 347 in the City of Maricopa is often closed due to a crash, resulting in traffic backups of a mile or more. The lack of alternative routes to SR 347 further aggravates congestion during these events.

Multimodal Circulation Plan: Roadways

The transportation system has been planned as an integral component of the land use and economic development elements. Figures 4-4 and 4-5 on the following pages illustrate the overall Multimodal Circulation Plan, a balanced transportation system incorporating the transportation modes of roadways, rail, transit, and aviation. This section describes the Roadways (4-4) component of the Multimodal Circulation element. The Rail, Transit and Aviation (4-5) components of the Multimodal Circulation element are described in detail later.

The types of regional roadways include Interstates/high capacity corridors, enhanced parkways, parkways, and principal arterials. Standards for principal arterials are in the RSRSM Access Mobility Management Manual (October 2008) and the same document

includes some standards for parkways that are to be determined by Pinal County in reference to the Final Arizona Parkway Guideline. The Plan makes recommendations concerning roadways on the State Highway System, while final designations of State Highway System roadways are made by the Arizona State Transportation Board. A system of minor arterials, collectors, and local streets will connect to the regional roadways and serve trips within activity centers and residential areas.

4-2: Regional Functional Classification System

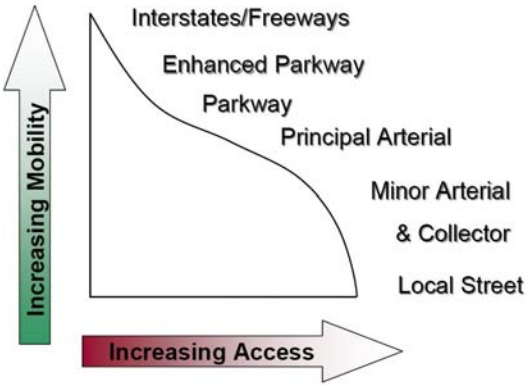


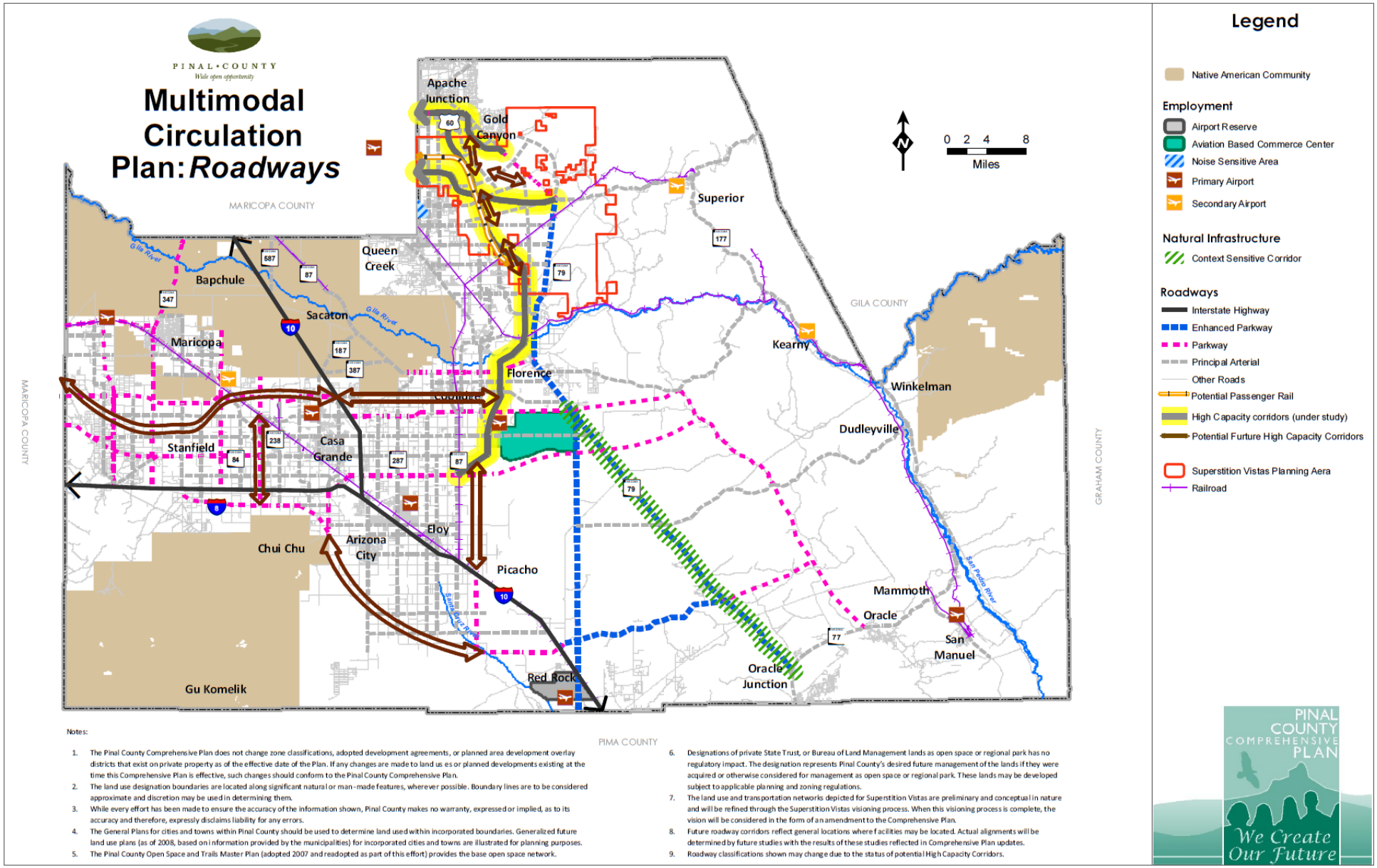
Figure 4-2, relates the roadway classifications to mobility and access, and table 4-3 presents the standards for each classification. Following an illustration of the Multimodal Transportation Plans (4-4 and 4-5) are brief descriptions of each type of regional roadway facility.

4-3: Roadway Classification Standards

Classification	Public Access	Private Access	Design Speed	Right of Way
Interstates/High Capacity Roadway	Traffic interchanges at 1 mile spacing Suburban traffic interchanges at 2-3 mile spacing	None	65 – 75 mph	300 – 400 feet
Enhanced Parkway	To be determined by Pinal County in reference to the Final Arizona Parkway Guideline	To be determined by Pinal County in reference to the Final Arizona Parkway Guideline	50 – 65 mph	300 feet
Parkway	To be determined by Pinal County in reference to the Final Arizona Parkway Guideline	To be determined by Pinal County in reference to the Final Arizona Parkway Guideline	50 – 65 mph	200 feet
Principal Arterial	At-grade intersections at ¼ - ½ mile spacing	Restricted driveway access. Full access driveway at least 660 feet from signal. Right-in/Right-out driveway at least 330 feet from signal. Right-in/Right-out driveway at least 330 feet apart.	35 – 50 mph	130 – 150 feet

Source: Pinal County Comprehensive Plan, 2009

4-4: Multimodal Circulation Plan: Roadways



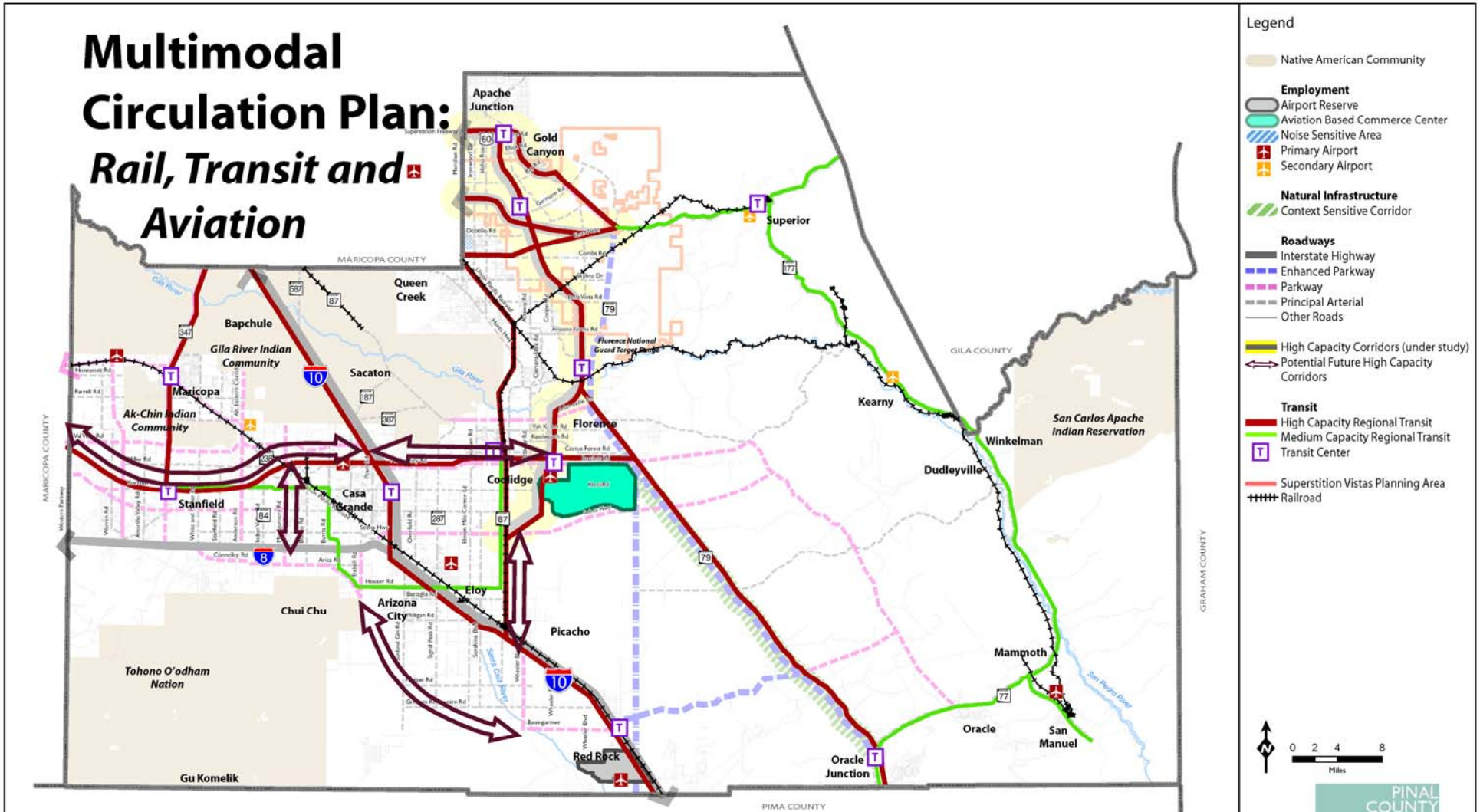
Notes:

1. The Pinal County Comprehensive Plan does not change zone classifications, adopted development agreements, or planned area development overlay districts that exist on private property as of the effective date of the Plan. If any changes are made to land us es or planned developments existing at the time this Comprehensive Plan is effective, such changes should conform to the Pinal County Comprehensive Plan.
2. The land use designation boundaries are located along significant natural or man-made features, wherever possible. Boundary lines are to be considered approximate and discretion may be used in determining them.
3. While every effort has been made to ensure the accuracy of the information shown, Pinal County makes no warranty, expressed or implied, as to its accuracy and therefore, expressly disclaims liability for any errors.
4. The General Plans for cities and towns within Pinal County should be used to determine land used within incorporated boundaries. Generalized future land use plans (as of 2008, based on i nformation provided by the municipalities) for incorporated cities and towns are illustrated for planning purposes.
5. The Pinal County Open Space and Trails Master Plan (adopted 2007 and readopted as part of this effort) provides the base open space network.
6. Designations of private State Trust, or Bureau of Land Management lands as open space or regional park has no regulatory impact. The designation represents Pinal County's desired future management of the lands if they were acquired or otherwise considered for management as open space or regional park. These lands may be developed subject to applicable planning and zoning regulations.
7. The land use and transportation networks depicted for Superstition Vistas are preliminary and conceptual in nature and will be refined through the Superstition Vistas visioning process. When this visioning process is complete, the vision will be considered in the form of a n amendment to the Comprehensive Plan.
8. Future roadway corridors reflect general locations where f acilities may be located. Actual alignments will be determined by future studies with the results of these studies reflected in Comprehensive Plan updates.
9. Roadway classifications shown may change due to the status of potential High Capacity Corridors.

Source: ALRIS 2007, ADOT 2007, Pinal County 2007, CAAG 2007, Open Space and Trails Master Plan 2007

November 18, 2009

4-5: Multimodal Circulation Plan: Rail, Transit and Aviation



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9. Roadway classifications shown may change due to the status of potential High Capacity Corridors.

Source: ALRIS 2006, ADOT 2007, Pinal County 2007, CAAG 2007

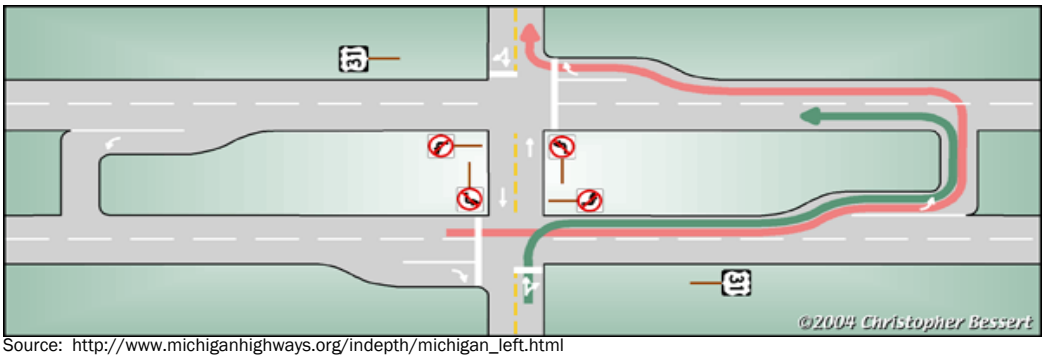
November 18, 2009

Interstates and High Capacity Corridors Under Study provide the highest level of traffic mobility and controlled access; the standard is the same as a freeway. Access to a high capacity roadway is limited to traffic interchanges that are spaced a minimum of one mile apart in dense urban areas and more widely spaced in rural and suburban areas. I-10 and I-8 as well as US 60 (Superstition Freeway) are the existing roadways of these types.

Enhanced Parkways are roadways designed for relatively uninterrupted, high-volume mobility between areas. Access to adjacent areas is limited, and may include a mixture of intersections (at-grade) and interchanges (grade-separated). Access to parkways is permitted only at one-half mile or one-mile spacing. An enhanced parkway could have more grade-separated traffic interchanges than the parkway classification and intersections/traffic interchanges spaced farther apart than two miles. Partial access (right-in/right-out) may be provided to large developments (commercial, office, or residential) at appropriately spaced points along the corridor. A barrier or median will physically separate opposing travel directions. Six to eight lanes—three or four in each direction—is typical of these roadways, and right of way width is generally 300 feet. *Refer to 4-3, Roadway Classification Standards.*

Enhanced Parkways may include a combination of at-grade intersections and grade-separated interchanges. Should interchanges be used on these facilities, they will typically be Single Point Urban Interchanges (SPUIs). At-grade intersection traffic control will typically include indirect left turns, known as the Arizona Parkway concept. A schematic diagram of a typical at-grade intersection is shown in figure 4-6. The purpose of the indirect left turn is to eliminate left-turn movements at major intersections, which significantly increases roadway capacity. This concept allows traffic to move through signalized intersections with very few stops.

4-6: At-Grade Parkway Intersection



Source: http://www.michiganhighways.org/indepth/michigan_left.html

A portion of SR 79 is shown on the *Multimodal Circulation Plan: Roadways* as a Context Sensitive Corridor. This portion of SR 79 is an enhanced parkway with specific planning guidelines which are included in *Chapter 3: Sense of Community*. These guidelines are intended to protect the scenic character of this corridor.

Parkways are also designed for relatively uninterrupted, high-volume mobility between areas. However, parkways have fewer grade-separated traffic interchanges than enhanced parkways. Partial access (right-in/right-out) may be provided to large developments (commercial, office, or residential) at appropriately spaced points along the corridor. Either a barrier or a median will physically separate opposing travel directions. Six lanes, three in each direction, is the typical cross-section of these roadways. The typical right of way requirement is 200 feet. *Refer to 4-3, Roadway Classification Standards.*

Principal Arterials are major roadways that emphasize a high level of traffic mobility and a low level of access to land. They are generally roadways of regional importance and are intended to serve moderate to high volumes of traffic traveling relatively long distances and at higher speeds. *Refer to 4-3, Roadway Classification Standards.*

A right of way requirement of 130 to 150 feet for principal arterials is documented in the *Regionally Significant Routes for Safety and Mobility Access Management Manual, September 2008* (proposed). A right of way requirement of 150 feet is documented in the *Pinal County Subdivision & Infrastructure Design Manual* (adopted) for use in unincorporated Pinal County. Six lanes, three in each direction, is the typical number of lanes for these roadways.

If the Multimodal Circulation Element of this Comprehensive Plan or if RSRSM Access Management Manual standards impact existing PADs, the owners of those PADs will be allowed to adjust their PADs

to address those specific impacts without needing to amend the Comprehensive Plan. These adjustments will need to be done through a zoning and PAD amendment. These adjustments are meant to be interior boundary adjustments of the various zone classifications existing in the PAD. The adjustments are not meant to add a new zone classification or increase the residential density. Increasing the size of a zoning classification is allowed only for commercial centers in approved PADs next to principal arterials. These centers will be allowed to adjust under the above criteria to reach the $^{1}/_{8}$ mile mark from a signalized intersection to connect to an approved full access driveway. Amendment criteria for PADs are located in the Zoning Ordinance.

Rail, Transit and Aviation

Current Situation, Deficiencies, and Issues

Intercity Bus Service Greyhound provides fixed-route bus service through Pinal County on I-10 between Phoenix and Tucson. Since 2000, however, the amount of intercity bus service in the County has been sharply reduced. In 2000, Greyhound operated four northbound trips and three southbound trips per day that served Casa Grande; three trips in each direction also served Eloy. Currently, Greyhound operates only two trips each way per day that serve Casa Grande. Service to Eloy has been eliminated.

Several other bus lines operate between Phoenix and Tucson via I-10. However, none of those operators makes any stops in Pinal County.

Maricopa XPRESS Bus Service In April 2008, commuter bus service began operating between the City of Maricopa, central Phoenix, and downtown Tempe. The service is funded in part by a Section 5311 grant from the Federal Transit Administration (FTA). Connections with Valley Metro buses and, effective December 2008, with light rail are available at Central Station in downtown

Phoenix. Three morning trips operate into Tempe and three afternoon trips return to Maricopa.

Coolidge Cotton Express The Cotton Express, operated by the City of Coolidge, provides both deviated fixed route and dial-a-ride services. The deviated fixed route operates Monday through Friday between 7:30 a.m. and 5:30 p.m., and makes a total of 46 scheduled stops. The stops are strategically placed throughout the city; all stops receive service at least once an hour and major businesses are served twice hourly. The route includes east and west loops and is designed to pass within two blocks of most homes in the city. However, the bus will deviate from the route to pick up or drop off dial-a-ride eligible passengers. The dial-a-ride provides curb-to-curb service Monday through Friday between 9:00 a.m. and 4:00 p.m. Dial-a-ride eligible passengers include persons over the age of 55 as well as persons with a disability that precludes walking more than two blocks to a bus stop. The city encourages dial-a-ride passengers to call at least one hour ahead of any scheduled appointments.

Special Needs Transit Services A number of agencies and commercial operators of special needs transit serve Pinal County. Included in this category are services provided to seniors, services provided to persons who are physically or mentally impaired, and services to mobility-limited persons requiring periodic medical treatment such as dialysis. Sources of funding include the FTA Section 5310 funds for special needs services, the Arizona Department of Economic Security (DES), the Arizona Health Care Cost Containment System (AHCCCS), and private health insurance providers.

4-7: Pinal Rides Demonstration Project Vehicle

Source: Pinal Rides

Regional Airport Shuttles Arizona Shuttle operates 18 schedules daily in each direction between Tucson and Phoenix Sky Harbor Airport. The shuttles operate through Pinal County along I-10, but make no stops there. Reservations must be made at least 24 hours in advance of travel. The Douglas Shuttle, which operates six trips daily in each direction between Douglas, Tucson and Phoenix, will stop in Casa Grande to pick up or drop off passengers if arrangements have been made in advance.

Pinal County Transportation Coordination Demonstration Project A *Pinal County Transportation Coordination Demonstration Project*, "Pinal Rides," sponsored by ADOT, was recently conducted to identify ways in which the operations of existing transit service providers can be coordinated to improve service to users. The project included development of a pilot model that could be transferred to other areas in Arizona. Photo 4-7 shows the vehicle used for the demonstration project. The demonstration project included weekly service between Casa Grande, Coolidge, and Florence, as well as weekly service between Casa Grande, Maricopa and Eloy.

Aviation Facilities and Services Pinal County has no scheduled air passenger or cargo service. All of the airports are general aviation airports. ADOT prepares and regularly updates the State Aviation Systems Plan (SASP) in which it categorizes airports as primary and secondary. Nine airports in Pinal County are included in the SASP.

Amtrak Passenger Rail Service Amtrak's New Orleans-Los Angeles Sunset Limited has a scheduled stop in Maricopa. The Amtrak station is in the center of Maricopa, located just east of the grade crossing of SR 347 and the UPRR tracks. Maricopa is the closest Amtrak stop to Phoenix. There is a growing volume of arriving and departing Amtrak passengers at this station.

4-8: Pinal County Dollars by Direction and Mode *(In Millions)*

Modes	Outbound	Inbound	Internal	Total	Percentage Total
Truck	1,731	8,200	21	9,952	95%
Rail	36	504	-	540	5%
Air	-	-	-	-	0%
Total	1,767	8,704	21	10,492	100%
Total in Percent	17%	83%	<1%	100%	

Source: Cambridge Systematics, Transportation/Logistics Research Project, *Trade Flow Study*, Arizona Department of Commerce, November 2004

Freight Flows, All Modes In 2004, 7.77 million tons of freight flowed into Pinal County, and 8.26 million tons were shipped out of the County. Table 4-8 lists the freight tonnage shipped and received, according to whether the freight was outbound from the County, inbound to the County, or picked up and delivered within the County. According to a *Trade Flow Study* conducted by Cambridge Systematics, Inc., in September 2004, "Pinal County is the third largest County in the state in terms of shipment value with $10 billion worth of freight flows. A large part of this value is inbound shipments to support the growing population in the County."

Rail Freight Service Pinal County is bisected from northwest to southeast by the Sunset mainline of the UPRR, which handles between 55 and 65 freight trains daily. The line through Pinal County is programmed to be double-tracked by 2011. The Sunset route has 28 at grade crossings in Pinal County. At-grade crossings are most prevalent in Casa Grande, followed by unincorporated Pinal County, Eloy and Maricopa. In May 2008, the UPRR agreed to provide $35 million to build "three to four" grade-separated crossings throughout the County over a 25-year period. The UPRR's Phoenix Subdivision branches from the mainline at Picacho and heads north through Eloy, Coolidge and Queen Creek to the Phoenix metropolitan area. The Phoenix Subdivision handles approximately six trains per day in each direction.

The Copper Basin Railway (CBRY), an independent short line, runs from its junction with the UPRR Phoenix Subdivision at Magma, northeast of Coolidge, through Florence to Hayden. The CBRY also operates a branch between Hayden and Ray to serve the mining activity in the Ray area. Pinal County's other rail line, the Magma Arizona Railroad from Magma to Superior is not currently in operation.

4-9: Pinal County Dollars by Commodity and Mode *(In Millions)*

Commodity Description	Truck	Rail	Total	Total%
Secondary Flows	7,007	-	7,007	67%
Farm Products	388	193	581	6%
Petroleum or Coal Products	526	7	533	5%
Food or Kindred Products	347	29	376	4%
Nonmetallic Minerals	371	1	372	4%
Chemicals or Allied Products	43	262	306	3%
Metallic Ores	205	-	205	2%
Clay, Concrete, Glass or Stone	130	-	130	1%
Leather or Leather Products	127	-	127	1%
Machinery	121	-	121	1%
Others	688	47	735	7%
Total	9,952	540	10,492	100%
	95%	5%	100%	

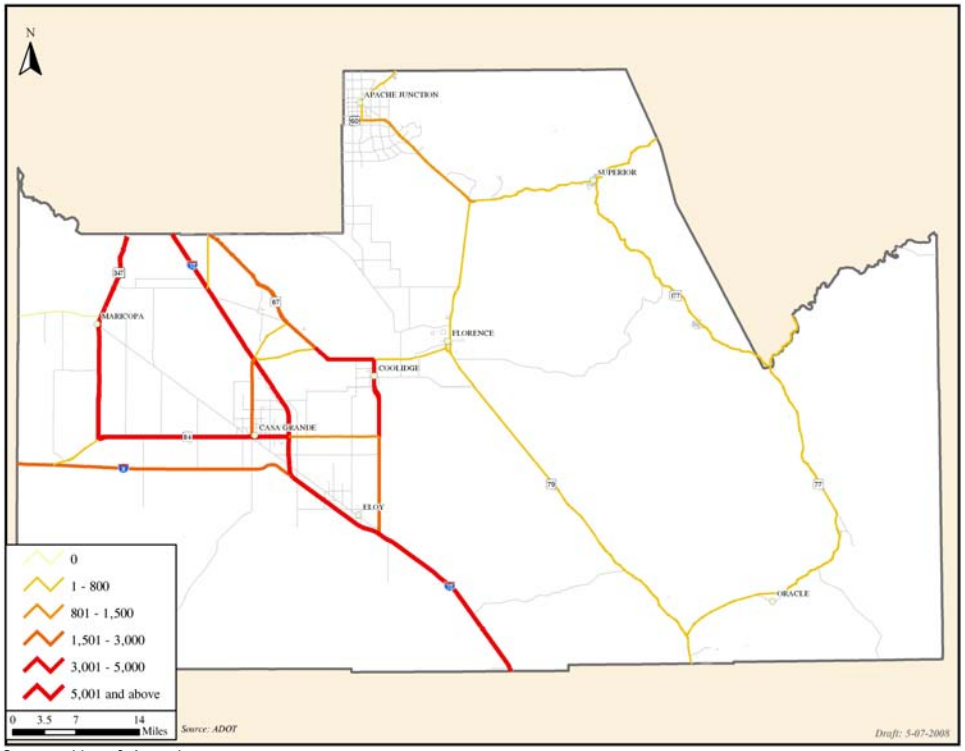
Cambridge Systematics, Transportation/Logistics Research Project, *Trade Flow Study*, Arizona Department of Commerce, November 2004

Truck Freight Service Trucks carry 95% of the total freight in Pinal County, when the freight is measured by dollar value. Table 4-9 shows the distribution of the County's freight flows by mode and value. "Chemicals or allied products" are the only commodity category in which trains carry a higher value of freight than trucks.

Most truck traffic from, to, and through Pinal County travels on I-10 and I-8. Figure 4-10 shows the average annual daily truck volume for major roadways in the County in 2006. *Note that the data, which was prepared by ADOT for inclusion in the* Highway Performance Management System*, is incomplete. There may be additional trucks on the roadways displayed, and there are likely other roadways that carry truck traffic such as SR 238 and SR 347.*

The percent of person-trips made on public transportation in Pinal County is well below the statewide average. This is due to the limited transit service currently offered in the County. However, the percent of persons in the County who carpool to work is above the statewide average.

4-10: Average Annual Daily Truck Volume on Key Highways and Interstates



Source: Lima & Associates

The following are current issues relating to multimodal transportation in Pinal County:

- **Changing Needs of the Transit-Dependent Population** The County has grown so rapidly that the needs of its transit-dependent citizens have changed quickly. A response identified as appropriate mitigation for current unmet needs may well be out-of-date by the time it is implemented. One way to meet this challenge would be to implement services flexible enough to evolve as the County and its local jurisdictions grow.

- **All Medical Transportation Services are Based in Casa Grande** Rapidly growing cities such as Maricopa, as well as the newly developed areas, will need locally-based medical transportation services (and vehicles), typically provided by the private sector, even when more medical services are provided locally. Over time, the percentage of trips provided to local clinics or hospitals will increase, and trips to the Phoenix area will be limited to those needing specialized care not available in the County.

- **Additional Services for Seniors Needed** As new communities and developments are established, additional

senior centers will be needed. These centers may become the initial providers of transit service for seniors. Senior centers typically obtain FTA Section 5310 funding for the purchase of one or more vehicles used to transport seniors to the center and other destinations, and to provide "meals on wheels" for those who are homebound. Section 5310 funds are for capital purchases such as vehicle acquisition and may not be used to subsidize operations. The local jurisdiction where the center is located would appropriate matching funds. If Local Transportation Assistance Funds (LTAF) II are available, they can be used for this purpose.

- **Transportation Demand Management** Transportation Demand Management (TDM) refers to strategies to influence traveler behavior for the purpose of reducing or redirecting travel demand. The primary purpose of TDM is to reduce the number of vehicles using roadways or shift travel to off-peak times. TDM opportunities include:
  - **Public mode support** Alternatives to single-occupant-vehicle travel, such as transit, vanpooling, and support for carpooling and biking.
  - **Employer support** Private-sector programs and services such as flex time scheduling that encourage employees to change their commuting practices, a "4-10" work week (employees working 4 days, 10 hours per day), and opportunities to work from home or remote locations.
  - **Land use policies** Encouraging urban design and a land use mix that support walking, biking, and transit.
  - **Ridesharing program** This program could include carpools as well as vanpools. As vanpool ridership increases, some vanpools could be supplemented or replaced by commuter bus service. County involvement in the program could range from simply continuing a Web site for matching potential carpoolers to

establishing vanpools where vans are provided by the County.

- **Commercial Air Service** Based on the projected growth of Pinal County and its potential to generate passenger demand similar to present levels in Tucson, it is not unreasonable to assume that the County will be capable of supporting air service and a commercial airport in the 2030 to 2035 timeframe. This will depend on the capacity of other airports such as Phoenix Sky Harbor, Tucson International, and Phoenix-Mesa Gateway to serve Pinal County passenger demand.

- **Commuter Rail Service** ADOT is studying the re-introduction of rail passenger service between the Phoenix and Tucson areas that would traverse Pinal County and possibly use existing rail corridors through Queen Creek, Coolidge, Eloy, and Picacho. Initially, commuter rail trips may be scheduled as morning trips to the Phoenix and Tucson areas and evening trips returning to Pinal County stops. As the County grows and more rail lines and stops are added, local trips between, for example, Eloy, Casa Grande, and Maricopa, might be warranted, timed to serve local work and shopping trips.

- **Community Transit Centers** Local jurisdictions in the County should consider setting aside appropriate spaces for community transit centers. The centers should be located strategically on regionally significant roadways or multimodal corridors serving the area. Possible elements of the transit centers could include transfer terminals for future intercity bus, bus rapid transit (BRT), local bus, and rail services, as well as park-and-ride facilities.

Such transit centers could also be part of larger community gateway facilities that include:

- Tourist and newcomer information centers staffed by local volunteers or Chamber of Commerce staff
- Economic development satellite offices
- Bicycle storage and rental

- **Lack of Adequate Funding for Projects** A common theme with respect to Arizona development and infrastructure is that "growth should pay for itself." However, much of Pinal County's growth is externally driven—a direct result of the County's strategic location between the Phoenix and Tucson metropolitan areas. As the area between Phoenix and Tucson develops, the County's infrastructure needs will inevitably become more urban and complex in nature. The unmet transportation needs will need to be recognized on a regional as well as a statewide level, to coordinate the County's internal mobility needs and those related to its supporting role with respect to Phoenix and Tucson and adequate funding mechanisms.

- **Auto-oriented Developments** Most residential developments within Pinal County are automobile-oriented in design. Some developments are designed as discrete communities having internal circulation on loop roads or spines with cul-de-sac branches, which are not designed to facilitate pedestrian or bicycle travel between adjacent developments or between residential and commercial areas. In these developments, the internal roadway system is linked to the external network by one or more "gateway" entrances from arterials.

  The success of a local transit system depends to a large extent on the location of bus stops within a quarter–mile of origins and destinations. Direct and continuous collector

streets between the developments are one key to reasonable walking distances to bus stops.

- **Uncertain Futures for Amtrak and Greyhound** Amtrak's Sunset Limited currently stops in Maricopa, having been rerouted from the line through Phoenix in 1996. However, federal Amtrak funding is precarious and the future of long-distance trains is by no means guaranteed. The current three-times-weekly schedule is not conducive to rail travel in Arizona. Greyhound has also reduced or eliminated service to Pinal County communities in recent years. Service along the US 60 corridor in the northeastern part of the county was eliminated altogether in 2005. Casa Grande is currently the only Pinal County city with Greyhound service. Private, unsubsidized bus service is subject to cancellation without notice.

Multimodal Circulation Plan: Rail, Transit and Aviation
This multimodal component was developed in response to the other elements of the Plan and is intended to provide examples of the types of transit and rail services that could be expected to be in place at County buildout—considering other aspects of the Plan, the locations of transportation corridors, future residential densities, and future activity centers. Suggested alignments for commuter rail, high capacity transit corridors, and medium capacity corridors are subject to further evaluation and refinement. Pinal County will conduct a transit study beginning in 2008 that will refine and modify the multimodal circulation element.

Transit and Rail All roadways of the classes discussed above could accommodate transit of at least medium capacity. The right of way width for enhanced parkways (300 feet) and freeways (300 to 400 feet) would allow for High Occupancy Vehicle (HOV) lanes, dedicated bus lanes, and/or a separate rail line within the right of way. Two types of regional transit are included: high capacity

Figure 4-11: Passenger Rail Characteristics - Commuter Rail and Intercity Rail

	Commuter Rail	Intercity Rail
Distance between stations	Between 2 and 5 miles	20 miles or more
Extent of System	Between 20 and 75 miles	50 miles or more
Maximum Speed	79 mph	110 mph*
Average Speed (with stops)	45 mph	55 mph or more**
Motive Power	Diesel or Electric	Diesel or Electric
Passenger Cars	Commuter Coaches seating between 90 and 135 persons each	Reclining seat coaches seating between 60 and 80 persons each

*Train speeds higher than 110 mph require grade-separated highway-rail crossings by law.
**Average speed and fuel efficiency increase with fewer intermediate stops.

Sources: Lima & Associates, Gannett Fleming, 2009

regional transit (including commuter rail) and medium capacity regional transit. Commuter rail is shown where it is most likely to be implemented—along the existing railroad alignments.

Commuter Rail consists of relatively high-speed passenger rail service operating along a conventional railroad right of way. It includes rail service designed for Pinal County commuters to and from the Phoenix and Tucson areas. If higher-speed intercity rail were provided connecting Tucson and Phoenix, some Pinal County commuters would use the intercity rail, which would likely have two or three stops in Pinal County. The characteristics of commuter rail and intercity rail appear in figure 4-11. While the service might be implemented using passenger coaches hauled by diesel locomotives, it could also consist of coaches hauled by electric locomotives, or of self-propelled electric or diesel multiple units. Service may be all-day or peak hour only.

High Capacity Regional Transit could include any of the types of commuter rail service described above. High capacity transit can also be light rail transit or bus rapid transit.

4-12: Metropolitan Phoenix Area METRO Light Rail Vehicle

Source: Lima & Associates

- **Light Rail** vehicles (photo 4-12) are electrically powered and typically operate in a dedicated right of way, which can be a reservation within a regional roadway. Stations are generally spaced at least one-half mile apart. Light rail vehicles have maximum speeds of 60 mph or higher and end-to-end travel times within the corridor that are competitive with automobile travel times.
- **Bus Rapid Transit** (BRT) exists in several forms. The most sophisticated form of BRT closely resembles light rail except that the vehicles travel on rubber tires instead of rails. Rail-like stations, park-and-ride lots, and pre-board ticketing

are used. In Phoenix and Flagstaff, BRT uses deluxe transit coaches with amenities such as high-backed seating (Phoenix) or hybrid power (Flagstaff), and limited stops. Vehicles travel on freeways and use HOV lanes where available.

Medium Capacity Local Transit could include modern street car service, fixed route bus service, or deviated fixed route bus service, as warranted by the residential and employment density of the corridor and transit travel volume.

- **Modern Streetcars** closely resemble light rail vehicles. However, the rails are typically laid in motor vehicle travel lanes rather than in a reserved right of way, and the stop frequency, stop characteristics, and travel speed more closely resemble fixed route bus service. Streetcars operate singly whereas light rail cars may be trained. Modern streetcar service is typically an upgrade to fixed route bus service and in some cases may be further upgraded to light rail.
- **Fixed route bus service** is the typical bus service on most routes in the Phoenix and Tucson areas. Such service is provided by 40 foot-long vehicles having a seating capacity of about 40 riders. On regional routes where communities are farther apart, intercity coaches similar to Greyhound buses could be used. Phoenix and Tucson vehicles use alternative fuels such as compressed or liquefied natural gas. Federal law requires that complementary paratransit service—for mobility-limited persons unable to use the bus system—be provided within ¾ mile of every fixed route bus line. This does not apply to intercity service, however.
- **Deviated fixed route bus service** is usually provided along corridors or in communities where the population and its density do not warrant higher-capacity forms of transit. The

Cotton Express service operated in Coolidge is a deviated fixed-route service. Such services are often provided using shorter vehicles capable of carrying between seven and 22 persons.

Figure 4-5 (earlier in chapter) illustrates proposed high and medium capacity regional transit facilities including:

- Preserving high capacity transit corridors along the following alignments:
    - I-10 Corridor across the County.
    - North-South Freeway Corridor between US-60 and I-10.
    - Val Vista Parkway Corridor between I-10, the North-South Freeway Corridor, and SR 79.
    - SR 347 between Stanfield, Maricopa, and the Maricopa County line.
    - Williams Gateway Freeway Corridor between the Maricopa County line and the North-South Freeway Corridor.
    - SR 79 between its junction with the North-South Freeway at Florence and SR 77 at Oracle Junction.
    - SR 77 from the Pima County line through Oracle to San Manuel and Mammoth.
- Preserving medium capacity transit corridors in the following alignments:
    - US 60 between the Maricopa County line at Apache Junction and the Gila County line east of Superior.
    - SR 77 between Mammoth and Winkelman.
    - SR 177 between Winkelman and Superior.
    - A regional medium capacity transit "loop" from Stanfield through Casa Grande and Eloy to Coolidge. One possible alignment for this loop would be to follow SR 84 east from Stanfield into Casa Grande, then south on Burris and Thornton

Roads to Battaglia Road, across Battaglia Road through Eloy to SR 87, then north into Coolidge.

- Possible sites for a suitable array of transit centers. Candidate sites for these centers include:
    - Downtown Maricopa
    - Stanfield
    - Florence Boulevard and I-10 in Casa Grande
    - Downtown Coolidge
    - Apache Junction
    - At the junction of the Williams Gateway Freeway and the North-South Freeway
    - Florence
    - At the two intersections of the Val Vista Parkway and the North-South Freeway and at SR 347
    - At the intersection of SR 347 and I-8
    - Oracle Junction
    - Superior

Commercial Airport

The size of a possible commercial airport in Pinal County will depend on the type of service (role) identified for the facility. It could be a small commercial airport providing "commuter" and short-haul flights to larger hubs, or a domestic "origin-destination" airport with long-haul service to major cities. It is premature at this point to suggest a service role, as this would be addressed through a comprehensive market assessment. However, the level of demand will drive the type of commercial service at the airport, which will in turn dictate the facilities that need to be provided.

The length and spacing of runways are primary influences on the size of an airport. Runway length will be driven by the air service. For "regional", short-haul service a runway length of 8,000 feet may be adequate; 12,000 feet would likely represent a minimum for long-haul operations.

Based on a cursory review, a potential airport location in the Coolidge area appears feasible and due to its central location is a reasonable assumption on which to base future County land use plans. Other locations may also be viable.

Land use plans of the County should recognize the need to "buffer" areas adjacent to an existing or future airport from noise impacts. This may be in the form of maintaining open space or imposing requirements to encourage compatible land uses within areas of noise exposure.

Bicycle, Pedestrian and Equestrian Facilities

Current Situation and Issues
Existing bicycle and pedestrian facilities can be divided into two categories: provisions for walking and bicycling along public roadways, and off-road opportunities for hiking, biking, and horseback riding. In addition, County communities have multiuse pathways such as the Greenway in Florence.

ADOT publishes a bicycle map that depicts the suitability of each state highway for bicycle use. The map includes details such as the width of shoulders, the character of the shoulder surface, and the width of shoulders on bridges. Bicycles are permitted on all state highways in Pinal County except I-10.

Passive corridors are primarily historic trails that were used over long distances before the advent of motorized travel or the existence of the Interstate highway system. Four such routes exist through Pinal County: the Juan Bautista de Anza National Historic Trail, the Butterfield Route, Kearny's Route, and Phoenix Stage Roads. All of these routes were used historically to move people and goods, primarily between Mexico and California, and can be

partially retraced today, depending on the current ownership of the land.

Active trail corridors in Pinal County serve modern recreational users, such as hikers, mountain bikers, and equestrians. The Arizona Trail is a continuous, 800-mile, non-motorized trail across Arizona from Mexico to Utah that is currently 90% complete. Within Pinal County, this trail winds through the Tonto National Forest and Boyce Thompson Arboretum, running west of Kearny down to Oracle and through the Coronado National Forest. Only about 20 miles of the Arizona Trail is still left to construct north of the Gila River to the Tonto National Forest boundary. The Great Western Trail is a proposed trail serving both non-motorized and motorized users connecting Canada and Mexico. An alignment through Pinal County to best meet the needs of the potential users of this trail is still being determined. There are also equestrian staging areas in Florence that provide a starting point for other active trails winding through Pinal County.

Multiuse Pathway System As new developments and communities are established, an interconnected multiuse pathway system should be developed for bicyclists and pedestrians. To implement a successful bicycle program, the County must establish a system of bicycle facilities connecting residential areas to schools, parks, employment centers, and shopping areas; integrate the system to connect the many master planned communities (region to region connectivity), provide parking at key destinations, and facilitate bicycle education and safety programs.

Design Intersections for Bikes It is imperative that roadway and intersection design take into account bicycling as a means of transportation. Studies of peer agency best practices should be undertaken to identify intersection designs and features most compatible with safe bicycling where appropriate. Consistent standards should be established for bike lanes, including width,

striping, signage, and allowance for motor vehicle parking if appropriate.

Noise

Highway, railroad, and aviation noise minimization is important to the future Pinal County environment in both urban and rural areas. In urban areas a somewhat higher level of noise is expected than in rural areas. Often in urban areas the aim is to avoid noise levels that are disruptive to the various activities in a particular neighborhood. In rural areas, a low level of environmental noise means that the more developed areas are more compatible with the natural environment. Both residents and visitors are able to enjoy the quiet and to hear the sounds of wildlife and the weather.

Noise minimization along highways usually involves three aspects: land use controls, individual vehicle controls, and highway noise mitigation. The highway noise mitigation aspect is addressed in this circulation element. Highway noise mitigation is managed cooperatively by the local, state, and federal government and private industry.

Railroad noise minimization usually involves *Quiet Zones*. The *Final Rule on the Use of Locomotive Horns at Highway-Rail Grade Crossings,* published by the Federal Railroad Administration (FRA) on April 27, 2005, provides for the establishment of *Quiet Zones* where the use of locomotive horns can be restricted provided certain supplemental or alternative safety measures are in place and the crossing accident rate meets FRA standards. Locomotive engineers retain the authority to sound the horn in emergencies. Two types of quiet zones may be considered for Pinal County areas:

- **Full Quiet Zones** are zones where the horn is silenced 24 hours per day.

- **Partial Quiet Zones** are zones where the horn is silenced for only a portion of the day, typically between the hours of 10 p.m. and 7 a.m.

To obtain Quiet Zone approval for a segment of rail line, either Supplemental Safety Measures (SSMs) or Alternative Safety Measures (ASMs) must be in place for all highway-rail crossings within the Quiet Zone. Examples of measures are special types of gates and enforcement programs such as the ticketing of motorists who make unsafe crossings.

Current Situation and Issues

The *Land Use Element* of the *2001 Pinal County Comprehensive Plan* acknowledged the importance of considering Interstate highway traffic noise when planning development adjacent to such highways. The 2001 plan also established a Noise Sensitive Area designation near Phoenix-Mesa Gateway Airport. The *Natural Environment Element* included the following policy: "Encourage the coordination of noise and nuisance control programs and standards with state, local and federal agencies." The plan generally referred to land use strategies, rather than transportation system strategies, to accomplish compatibility between the transportation system and adjacent land uses.

Pinal County adopted an *Excessive Noise Ordinance* in 2006. The ordinance prohibits any noise which exceeds certain levels. Noise levels are permitted to be higher in commercial and industrial areas than in residential areas. The policy states further that at and above these levels, noises are excessive and detrimental to the health and welfare of the citizens of the County, so they should be eliminated. The *Excessive Noise Ordinance* covers noise from motor vehicles on highways by setting noise limits at a distance of fifty feet (50') from the center of the street upon which the vehicles travel. The Ordinance has a specific exemption for "noises from the normal operation of railroad trains," and for any aircraft operated

"in conformity with…adopted federal air regulations." The Ordinance also covers land use noise by setting noise level limits at the property line, for noise generated on a particular property. The Ordinance has specific provisions with regard to noise generated by construction projects.

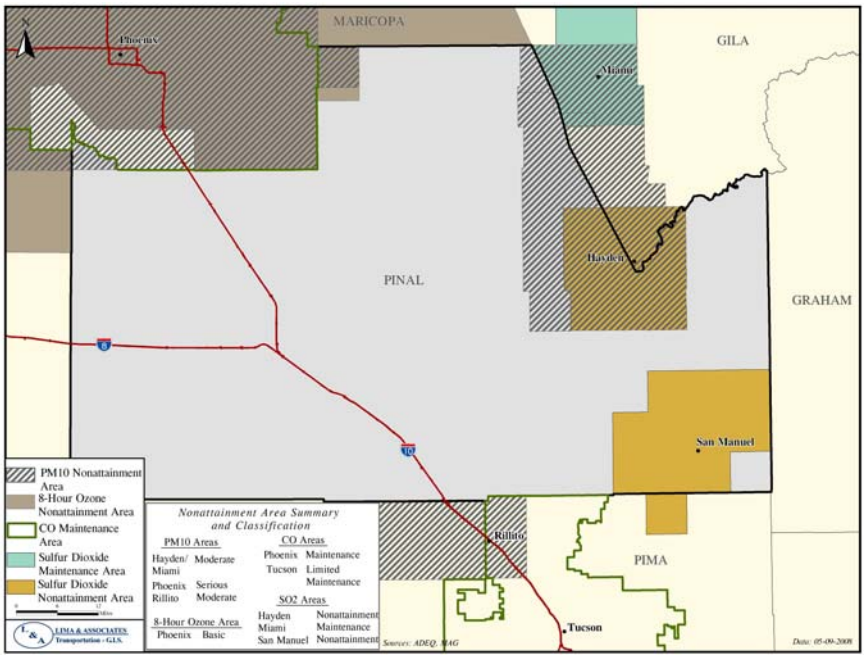
Air Quality Planning for All Modes

Traffic on American highways is the source of a significant proportion of the air pollution problems throughout the nation. In urban areas, the sheer amount of traffic and the effects of delay and traffic congestion may result in widespread transportation-related air pollution. In a rural county, other sources of air pollution may dominate, such as agricultural or mining operations.

As areas urbanize, traffic congestion typically increases. Federal metropolitan planning regulations (23 U.S.C. 134), require that each urbanized area with a population of over 200,000 persons be designated as a Transportation Management Area. One of the purposes of the regulations is the minimization of air pollution.

The transportation-related air quality situation in Pinal County is described next.

4-13: Pinal County Nonattainment and Maintenance Areas



Current Situation and Issues

Pinal County has similar air quality issues as other fast growing areas of Arizona. Areas within Pinal County differ with regard to their air quality designations. In some areas, industrial sources have caused the County's air to exceed standards for particular pollutants. Motor vehicles are significant sources of three pollutants for which parts of Arizona have violated the national air quality standards: carbon monoxide, particulate matter, and ozone. Portions of Pinal County are within areas that have been designated as nonattainment areas for particulate matter and ozone (figure 4-13). None of Pinal County has been designated as a nonattainment area for carbon monoxide. The Apache Junction area is in nonattainment for both particulate matter and ozone.

Pinal County has had an Air Quality Control District since 1967. Its *Travel Reduction Program* carries out the Environmental Protection Agency (EPA) requirements connected to the particulate matter nonattainment area in the Apache Junction area. The Travel Reduction Program applies to employees of the County and of other employers with 50 or more employees based at one location in the nonattainment area. The many options in the program, such as carpooling and telecommuting, encourage the reduction of motor vehicle commute trips.

The rapid population growth of the County has brought it from a population of about 180,000 in the year 2000—below the Transportation Management Area threshold—to over 300,000 in

2007. Which portions of the County qualify as urbanized will be established from the results of the 2010 Census. While it is uncertain whether the County will become an independent Transportation Management Area, much more area in the County is expected to qualify as urbanized.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

Roadways

4.1 Goal: Improve County and regional mobility.

4.1.1 Objective: Develop a balanced transportation system.

Policies:

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4.1.1.1 Recommend that ADOT designate all Interstates as multimodal corridors that will be modified to become multimodal roadways as they are improved. (However, pedestrians are prohibited from all freeways and bicycles from I-10 for safety reasons.)

4.1.1.2 Work with the regional transportation agency(ies) responsible for Interstate Highway planning to coordinate the efficiency and functionality of these highways with development within Pinal County. In the first several years of this plan's implementation, those agencies will be the ADOT, the Metropolitan Planning Organizations (MPOs), and various local jurisdictions.

4.1.1.3 Designate all proposed high capacity roadways as multimodal corridors that will be constructed to become multimodal roadways, including transit, as the corridors are improved.

4.1.1.4 The County will evaluate the transportation impacts of all proposed Comprehensive Plan amendments and rezonings on Pinal County's regional transportation system.

4.1.1.5 Encourage Pinal County's development pattern to support a diverse range of travel modes. Develop a County-wide transportation system that meshes with local systems that meet each community's local mobility choices and needs.

4.1.1.6 Promote vehicular and pedestrian access to corridors at an appropriate phase in the development of all commercial centers, Mixed Use Activity Centers, employment centers, and public facilities that are included in the Economic Development Plan.

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4.1.1.7 Promote smooth functioning of the principal arterial network with Interstate highways, high capacity roadways, enhanced parkways, parkways, and local roads.

4.1.1.8 Encourage development that adheres to Pinal County's access management system and standards on designated roadways as required by the Pinal County RSRSM Access Management Manual.

4.1.1.9 Acquire designated rights of way necessary for constructing roadways through dedication and/or easements as property owners request County approvals.

4.1.1.10 Consider emergency access and response when planning and implementing roadway improvements.

4.1.1.11 Construct principal arterials, parkways, and enhanced parkways as multimodal roadways, using such design features as bus pullouts and bus queue jumpers where warranted, sufficient roadway width for bicycles, and sidewalks.

Multimodal

4.2 Goal: Create a comprehensive multimodal system.

4.2.1 Objective: Develop additional transportation modes for a balanced mobility system.

Policies:

4.2.1.1 Conduct studies to determine the appropriate type(s) and timing of transit within identified corridors as appropriate population and employment density thresholds are reached.

4.2.1.2 Provide an enhanced public transportation system (local transit, carpool and park-and-ride lots, express bus or

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BRT, intercity bus, and commuter/intercity rail) that provides connections within the County and throughout the region.

4.2.1.3 Support implementation of Phoenix-Tucson intercity passenger rail service.

4.2.1.4 Work with ADOT and UPRR to identify appropriate Pinal County passenger/commuter rail station location(s).

4.2.1.5 Preserve sites for a suitable array of transit centers in the unincorporated County areas and coordinate with the cities and towns development of other transit centers.

4.2.1.6 Work with ADOT, UPRR, Maricopa Association of Governments (MAG), Pima Association of Governments (PAG), Central Arizona Association of Governments (CAAG) and other stakeholders to add commuter rail service from Pinal County to locations in both the Phoenix and Tucson metropolitan areas.

4.2.1.7 Encourage Pinal County's development patterns to support a diverse range of travel modes (single-occupant vehicle, multi-occupant auto, pedestrian, bicycle, and public transit), and that the system is designed to effectively meet regional and local mobility needs.

4.2.1.8 Provide connectivity between cities and towns, the Aviation-Based Commerce Center and other major activity centers.

4.2.1.9 Provide safe and efficient connections between modes to maximize opportunities for Pinal County.

4.2.1.10 Act now to preserve sufficient rights of way for adequate corridors to be constructed as regionally significant

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roadways, high capacity transit routes, or multimodal alignments as demand warrants.

4.2.1.11 Work with the ASLD to protect the site of the potential commercial airport for future use.

4.2.1.12 Develop and implement an action plan that outlines the planning process to study the feasibility and development of the commercial airport.

4.2.1.13 Require provision of sufficient right of way on major arterials, particularly those deemed to be of regional significance, for the future addition of high capacity vehicle lanes or transit corridors.

4.2.1.14 Require provision of sufficient right of way on collector streets for bicycle lanes and multi-use paths.

4.2.1.15 Encourage shade and landscaping along sidewalks and multi-use paths, as opposed to bare block or stucco walls that radiate more heat at pedestrian and bicyclist level.

4.2.1.16 Provide bus benches and shelters in areas to be served by local routes.

4.2.1.17 Strive for a "seamless" multimodal network providing convenient linkages and connectivity between all modes.

4.2.1.18 Include in airport planning contingencies for adequate surface connections between modes (air, transit, rail and other vehicles).

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4.2.2 Objective: Promote an integrated land use and multimodal transportation system by linking land use planning guidelines.

Policies:

4.2.2.1 Encourage new developments to support a variety of transportation modes including transit, pedestrian, and bicycling.

4.2.2.2 Establish requirements for Transit Oriented Development (TOD) site development.

4.2.2.3 Encourage new developments to provide connected open space that connects parks, schools, and neighborhoods.

4.2.2.4 Develop transit, pedestrian, and equestrian facilities as part of the transportation circulation system.

4.2.2.5 Continue to monitor the impacts of land use on the transportation system to coordinate needed transportation improvements with development.

4.2.2.6 Adopt procedures and design criteria for traffic-calming devices in residential areas.

4.2.3 Objective: Evaluate the potential for a commercial airport that will meet the needs of Pinal County at buildout.

Policies:

4.2.3.1 Work with the Federal Aviation Administration (FAA) and ADOT to arrange for a comprehensive airport study.

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4.2.3.2 Scope the study to take a system planning approach that addresses demand and capacity at a regional level and identifies passenger air travel demand throughout the County.

4.2.3.3 Identify the appropriate functions for the airport and determine the amount of acreage needed.

4.2.3.4 Should studies indicate viability, locate a candidate site, preserve the site for airport development, and encourage compatible zoning and land uses on abutting acreage.

4.2.3.5 Plan for connectivity between the airport and the area roadway and transit networks.

Bicycle, Pedestrian, and Equestrian

4.3 Goal: Provide non-motorized transportation options.

4.3.1 Objective: Provide for non-motorized modes of transportation through the designation of bike lanes and bike routes, as well as the construction and expansion of bicycle and pedestrian pathways and equestrian trails.

Policies:

4.3.1.1 Update design standards for bicycle and pedestrian pathways and equestrian trails, including guidelines for safe trail crossings of parkway, arterial and collector roadways.

4.3.1.2 Develop a pedestrian, bicycle, and equestrian circulation network that connects activity centers, parks and open spaces in the County.

4.3.1.3 Provide bicycle facilities as an integral part of new and improved arterials and collectors.

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4.3.1.4 Encourage new development, during the subdivision approval process, to facilitate trail connections and establish a plan that identifies the types of facilities needed by different types of users, and routes and locations for bike, pedestrian, and equestrian uses.

4.3.1.5 Evaluate all alternatives for funding to establish, plan, and improve non-motorized transportation systems. Novice cyclists, and persons transitioning from purely recreational bike usage, may be encouraged to complete more non-recreational trips on bikes if multiuse pathways are available.

Noise

4.4 Goal: Minimize noise impacts created by the transportation system.

4.4.1 Objective: Where appropriate, roadways in Pinal County should be planned, constructed, and operated so as to achieve noise levels lower than those found in the federal standards for noise abatement, whether or not the roadways are federally-aided. The maximum level will depend upon land use controls, vehicle controls, and highway noise mitigation.

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Policy:

4.4.1.1 Use both land use controls and highway noise mitigation measures to achieve the desired low noise levels. Land use controls such as additional setbacks and special use restrictions may be employed on some properties. The full array of available noise abatement measures will be considered for County roadways, including noise walls, rubberized asphalt pavement, and other measures.

4.4.2 Objective: Railroads in Pinal County are encouraged to have Quiet Zones established in selected locations.

Policy:
4.4.2.1 Work with other local jurisdictions to explore funding for Quiet Zone implementation. Pinal County will establish criteria for the ranking of Quiet Zone applications in the unincorporated County, including the population density in the area and the scheduling of trains.

Air Quality Planning for All Modes (of Transportation)

4.5 Goal: Pinal County will preserve clean air in attainment areas and will achieve maintenance status on the schedules outlined in the State Implementation Plan(s) in those areas that have been designated nonattainment areas (Pinal County's requirements under the Clean Air Act are further explained in *Chapter 7: Environmental Stewardship* under *Air Quality*.) Pinal County will coordinate with any air quality programs undertaken by the Native American communities.

4.5.1 Objective: Pinal County will integrate its approach to land use planning, transportation system planning, and economic development to improve air quality in general. Residents will be educated about the proportion of transportation-related air pollution that is represented by commuting trips. Pinal County planning and development management will be increasingly coordinated with activities of the Pinal County Air Quality Control District.

Policies:

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4.5.1.1 Require developments and public community facilities to include amenities that encourage using rail, bus transit, bicycles, and walking as alternative forms of transportation where appropriate.

4.5.1.2 Encourage roadway design and funding in the County that provides for bicycles, pedestrians, and transit users.

4.5.1.3 Reduce parking requirements for transit-oriented development that fosters the use of transit.

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Chapter 5: Economic Sustainability

Economic Development

Introduction

The level of success of a local or regional economy touches everyone's quality of life. Strong economies create jobs and payrolls, generate tax revenues to provide infrastructure and services, and are diversified to adjust to changes and trends.

A successful economy does not just happen; developing infrastructure and identifying and preserving areas for current and future commerce requires careful planning and disciplined implementation. Residential growth will spur an increase in retail and service business activities, but a well rounded economy requires more. Statewide there is a growing dependence on the retail and service sector, typically with lower wages. In 2000, six of the top 10 Arizona employers were non-retail and non-service related businesses. As of June 2008, only one remained: Honeywell. The average annual wage for Honeywell is $73,000 and the average annual wage of a full time retail worker is $21,128 (*Arizona Republic*, October 12, 2008.) The need for a diversified economy beyond the retail and service sector is clear.

Since 2000, most of Pinal County has undergone tremendous population growth driven by the influx of new residential development. Much of this growth has occurred in the unincorporated portions of Pinal County where access to quality jobs is minimal. In fact, over the last 35 years job growth within the entire County has not kept pace with population growth, and has resulted in a downward trend of the ratio of jobs per capita. The populations of neighboring counties to the north and south have grown at a similar pace yet have maintained or increased their jobs per capita ratio over time.

The continued existence of Pinal County as a bedroom community threatens the fiscal and economic sustainability of the County and the quality of life of its residents. Currently, 40% of Pinal County residents commute outside of Pinal County for work, which not only represents lost time from family and community but also makes the area less attractive as a residential location and creates traffic congestion. The reality is that residential land uses create more expenditures than revenues. The current trend in residential growth, if allowed to continue without a balanced employment growth component, will eventually strain the County's ability to provide services. It is in the County's interest to work to encourage job growth within the County to provide options to the growing workforce.

Balancing residential growth with job creation is the central theme of the Economic Development element. Today, there are 185 jobs per 1,000 people in Pinal County. This statistic is below that of the neighboring counties of Maricopa and Pima, each with over 500 jobs per 1,000 people. Achieving fiscal and economic sustainability will require an approach that not only creates jobs in the local serving sectors, such as retail and construction, but also generates "base" employment from the manufacturing and business services sectors.

Purpose The Economic Development element serves to compliment and enhance the implementation of the Pinal County Comprehensive Plan as a whole. In order to fulfill this purpose, the Economic Development element concentrates on the County's ability to provide quality employment opportunities for its residents. This ability protects the economic and fiscal sustainability of Pinal County. An array of coordinated, cooperative policies and actions intended to strengthen the County's economy are among key defining issues for the County's future.

Relationship to Pinal County's Vision Pinal County residents and community leaders recognize that a balanced and healthy economy is necessary to attain economic and fiscal sustainability. The Pinal County Vision specifically states what economic sustainability means to the County:

> *Economic Sustainability—Expanding opportunities for residents to live, work, learn, and play in close proximity promotes long-term economic viability. Pinal County desires activity centers that serve the current and future residents' needs offering services, businesses and employment opportunities, including high-tech and environmentally friendly employers who champion Pinal County's conservation philosophy. The creation of the full range of quality jobs that allow residents to start their career, raise a family, and move up instead of out of Pinal County for career advancement is essential.*

While it is easy to identify the Economic Sustainability Vision Component as the driving force behind this chapter, the economy is so much more far reaching. It directly impacts all of the other six Vision components. Without a healthy, diverse, and balanced economy, resources will not be available to implement many of the strategies that will set Pinal County apart.

The vision is for Pinal County to achieve long-term economic viability that includes the creation of quality jobs, which in turn, will allow residents to live and work within the same community or region, as well as advance their careers in Pinal County. The creation of quality jobs will help Pinal County achieve a jobs per capita ratio that will match or exceed their neighboring counties.

Strategic Areas

The Economic Development element encourages and promotes expanding the local economy through the creation of policies that provide a direction on the focus of resources to expand, retain, and preserve quality jobs, strengthen the tax base, and provide superior public services to existing and new residents and businesses.

The economic stability of Pinal County hinges upon its ability to increase the jobs per capita ratio to a target of 500 jobs per 1,000 residents. The County can achieve this through sound economic development policies and coordination among municipalities and others. Creating a viable economy rests upon the collaborative efforts of the governments involved, the citizens who reside in the region, and the businesses that operate in the vicinity.

Employment

Today, nearly 51% of all employment in Pinal County is concentrated in non basic jobs such as retail, construction and government services. Mining and agriculture, historically important economic sectors, remain important but are subject to cyclical swings driven by world commodity prices. Water availability and cost along with the conversion of land from agriculture to other uses will have continual impacts on the agriculture industry in Pinal County.

The total number of jobs in Pinal County between 2002 and 2005 increased 25%, but this increase in jobs did not keep up with population growth. Future employment growth is likely to be influenced by those economic sectors that are growing nationally and distributed within the County based on regional locational advantages with the central and western portions of the County continuing to be strongest due to highway, rail, and other access

advantages. Mining, visitor related, and environmentally oriented opportunities may have the greatest impact in the eastern portion of the County with administrative services and light manufacturing holding potential for the north central portion of the County.

5-1: Pinal County Employment by Sector

NAICS	Industry Description	Total Jobs	% of Total
11	Agriculture, forestry, fishing	2,321	4.2%
21	Mining	1,757	3.2%
22	Utilities	491	0.9%
23	Construction	5,553	10.1%
31-33	Manufacturing	3,807	7.0%
42	Wholesale trade	1,002	1.8%
44-45	Retail trade	6,884	12.6%
48-49	Transportation and warehousing	1,394	2.5%
51	Information	D	NA
52	Finance and insurance	778	1.4%
53	Real estate and rental and leasing	489	0.9%
54	Professional and technical services	879	1.6%
55	Management of companies & enterprises	D	NA
56	Administrative and waste services	2,320	4.2%
61	Educational services	351	0.6%
62	Health care and social assistance	3,912	7.1%
71	Arts, entertainment, and recreation	1,461	2.7%
72	Accommodation and food services	4,168	7.6%
81	Other services, except public administration	1,538	2.8%
92	Government and government enterprises	15,361	28.1%
	Total	54,751	100.0%

D = Employment for "Management of companies and enterprises" is suppressed due to disclosure issues

Source: CAAG March 10, 2008

The top four business establishments in Pinal County that grew the fastest from 2004 to 2006 reside in educational services, finance and insurance, management, and professional services. However the greatest job growth was attained in administrative and waste services followed by transportation and warehousing, construction and finance and insurance. Manufacturing jobs increased a healthy 23%, but only represents 7% of total jobs.

5-2: Pinal County Establishment and Job Growth

	Establishments				Jobs			
Industry Description	2004	2005	2006	2004-06 % Change	2004	2005	2006	2004-06 % Change
Agriculture, forestry, fishing	140	148	141	0.7%	2,259	2,747	2,321	2.7%
Mining	12	13	15	25.0%	1,576	1,789	1,757	11.5%
Utilities	32	32	31	-3.1%	432	438	491	13.7%
Construction	549	553	614	11.8%	3,984	4,861	5,553	39.4%
Manufacturing	88	94	98	11.4%	3,085	3,581	3,807	23.4%
Wholesale trade	78	82	86	10.3%	811	891	1,002	23.6%
Retail trade	288	325	351	21.9%	6,084	6,500	6,884	13.1%
Transportation and warehousing	59	65	72	22.0%	887	894	1,394	57.2%
Information	26	27	25	-3.8%	D	D	D	0.0%
Finance and insurance	53	70	83	56.6%	580	697	778	34.1%
Real estate and rental and leasing	86	105	104	20.9%	413	502	489	18.4%
Professional and technical services	86	101	116	34.9%	721	804	879	21.9%
Management of companies and enterprises	2	3	3	50.0%	D	D	D	0.0%
Administrative and waste services	61	71	81	32.8%	684	2,187	2,320	239.2%
Educational services	11	15	19	72.7%	283	329	351	24.0%
Health care and social assistance	149	164	170	14.1%	3,494	3,738	3,912	12.0%
Arts, entertainment, and recreation	35	35	34	-2.9%	1,557	1,371	1,461	-6.2%
Accommodation and food services	189	223	223	18.0%	3,385	3,887	4,168	23.1%
Other services, except public administration	147	164	235	59.9%	1,269	1,489	1,538	21.2%
Government and government enterprises	173	185	184	6.4%	11,861	14,511	15,361	29.5%
Total	2,264	2,475	2,685	18.6%	43,656	51,499	54,751	25.4%

Note: Employment for Management of companies & enterprises is suppressed due to disclosure issues. D = Disclosure (unable to disclose)
Source: CAAG March 10, 2008

Occupational Growth

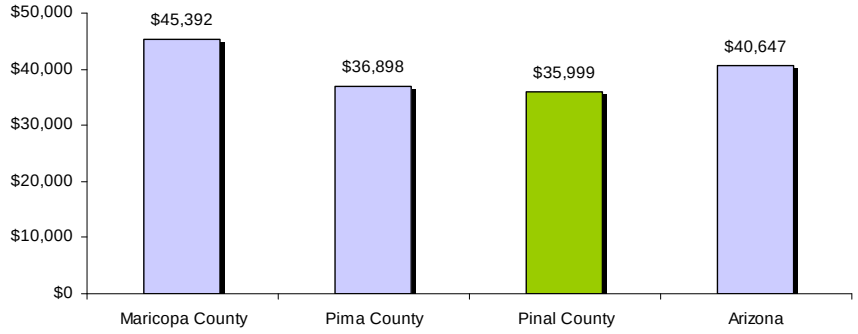
Attracting and retaining business begins with having a "job ready" workforce with the appropriate educational background and skills. The largest occupational growth rate in Pinal County was within management followed by sales and office. An increase in construction occupations has also occurred, which has been driven by a growing population and the demand for housing. Farming occupations, on the other hand, have experienced a slight decline.

5-3: Pinal County Civilian Employed Population, 16 Years and Over

	2000		2006	
Management, professional, and related occupations	13,523	22%	31,741	29%
Service occupations	13,432	22%	19,074	17%
Sales and office occupations	14,937	24%	28,883	26%
Farming, fishing, and forestry occupations	1,674	3%	1,486	1%
Construction, extraction, and maintenance occupations	8,727	14%	13,149	12%
Production, transportation, and material moving occupations	8,998	15%	15,737	14%
Total	**61,291**	**100%**	**110,070**	**100%**

Source: U.S. Census; ACS

5-4: Median Household Income, 2000



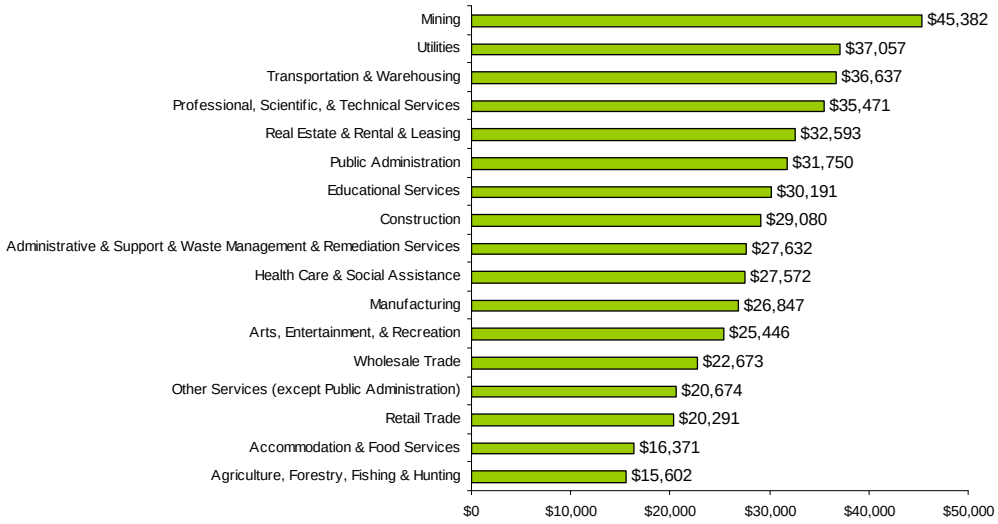
Source: U.S. Census

Income and Wages

A measure of a community's economic health resides in the amount of household disposable income. The more disposable income that circulates throughout the economy, the more direct and indirect spending (multiplier effect) will be generated. The linkage between the two is inseparable. Household income in Pinal County falls below the statewide average and that of its neighboring counties. Retailers look at median household income as a measure of consumption. Per capita income includes babies and children, and is not a strong measure of buying power.

When examining industry wages, one in five people in Pinal County are employed in jobs that pay a median wage of less than $17,000. In contrast, the highest paying industries, those that pay more than $35,000 a year represent only eight percent of all employment in Pinal County. In order to increase household income, it will be necessary to target the right mix of business and industry that pay higher wages. However, in order to attract companies that pay higher wages, Pinal County, in concert with its economic development partners, will need to focus its efforts on advancing educational attainment and investments. These efforts will attract those industries that pay higher wages, and policies should be developed that will encourage those industries to grow and expand.

5-5: Pinal County Wages by Industry



Source: Arizona Department of Economic Security in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics, June 2007

Goals, Objectives and Policies

Pinal County's economic development efforts must focus on the following:

- Encourage a full range of quality jobs for residents of Pinal County and increase the jobs per capita ratio.
- Encourage sustainable development consistent with Pinal County's environmental preservation philosophy.
- Support activity centers that serve local residents' needs offering services, businesses and employment opportunities, including high-tech and environmentally sustainable development.
- Support the economic potential of tourism by encouraging environmentally-sensitive and cultural tourism throughout the County.
- Preserve employment land for future opportunities (land banking large sites).
- Consider incentives for desired development (facilitation, permitting and financing options).
- Collaborate with all the communities within and adjacent to Pinal County, as well as other government entities, economic development organizations, and the private sector to achieve economic objectives.

- Measure and report on changing economic conditions and progress toward goals.

Quality Job Creation Quality job creation is the foundation of all economic development pursuits. Within Pinal County, creating jobs that pay higher wages is tied to locating the appropriate mix of business and industry. As mentioned earlier, 40% of Pinal County residents are commuting out of the County to work. By implementing a host of policies to create quality jobs in Pinal County, this trend can be reversed.

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

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Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

5.1 Goal: Create more employment opportunities in Pinal County.

5.1.1 Objective: Increase the number of businesses that expand in and locate to Pinal County.

Policies:

5.1.1.1 Focus business assistance and economic development efforts in Pinal County on retention and expansion of existing industry and recruitment of feasible and desirable industry targets.

5.1.1.2 Create an Economic Forum to coordinate and work regularly with the local economic development organizations, municipalities, CAAG, Chambers of Commerce, Downtown Associations, private and public utilities, and other business groups to strengthen the County's economy including such industry targets as:

Higher education
Warehouse/distribution
Manufacturing
Business services
Healthcare
Energy facilities

5.1.1.3 Utilize the Arizona Department of Commerce's asset inventory template and prepare an asset inventory that identifies the County's assets to support and sustain business.

5.1.1.4 Facilitate the coordination of workforce and economic development efforts among area economic development organizations and workforce providers to ensure that appropriate training programs are created and delivered in the marketplace, which match the needs of existing and targeted businesses.

5.1.1.5 Encourage the establishment and recruitment of environmental technology oriented "green" industries in

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cooperation with regional and local economic development organizations.

5.1.1.6 Establish a business development strategy for the expansion and attraction of businesses related to the UP classification yard and the potential spin-off industries in cooperation with adjacent regional and local economic development organizations.

5.1.1.7 Encourage the development of Activity Centers that support a wide range of goods and services.

5.1.2 Objective: Increase the economic impact of visitors and seasonal residents in the County through wildlife watching and passive outdoor recreation.

Policies:

5.1.2.1 Support a tourism corridor within the eastern County that stretches from Florence Junction through Superior to Dudleyville to Oracle and Oracle Junction. This should incorporate visitor destinations such as future state parks, rock climbing, arboretum, the Ore Cart Trail, future hotels, etc.

5.1.2.2 Support a tourism corridor for the Butterfield Stage Route that ties together Red Rock, Picacho Peak, the County Fairgrounds and Maricopa. The corridor could incorporate visitor attractions such as an auto tour, interpretive centers and festivals.

5.1.2.3 Cooperate with historic sites stewards, local business organizations, and tourist attraction owners and operators to organize, promote, coordinate, and publicize celebrations, festivals, etc., to stimulate local visitor industries.

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5.1.2.4 Build on the County's strengths in regional tourism and recreation by linking regional trails, waterways, and other linear features to local communities for access and to increase economic impact.

5.1.2.5 Encourage long-term business investments in visitor facilities that generate net fiscal benefits to the region, protect environmental quality, and are consistent with the objective of higher wage jobs for Pinal County residents.

5.1.2.6 Encourage passive outdoor recreation activities such as trail riding, bird watching, hiking, cycling, angling and hunting that are potential economic drivers for the County.

5.1.3 Objective: Provide incentives for desired development.

Policies:

5.1.3.1 Focus incentives including expedited permitting toward targeted projects that have been determined to meet criteria for quality job creation.

5.1.3.2 Explore the development of new broad-based funding mechanisms to finance infrastructure investments in support of focused economic development and recoup investments as development occurs.

5.1.3.3 Work at the state level with other stakeholders and counties to increase the economic tools available for business attraction.

5.1.3.4 Consider development of incentives to promote renewable energy ventures and green collar jobs.

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Employment Land Preservation The economic viability of employment lands throughout Pinal County need to be protected

against the conversion and encroachment of residential and less intense employment land uses. The retention, expansion and preservation of employment are crucial to the fiscal and economic sustainability of the County. A major tenet in the fiscal and economic sustainability of the County is the achievement of a balance between residential growth and job creation.

5.2 Goal: Encourage the preservation of adequate locations for employment uses to meet long-term economic development needs.

5.2.1 Objective: Protect and preserve the amount of land in the Comprehensive Plan designated for commerce-related land uses.

Policies:

5.2.1.1 Maintain, monitor and create, as necessary, design and development regulations to improve and maintain the appearance of commercial and industrial areas and buffer them from residential areas.

5.2.1.2 Explore tools and mechanisms, which will foster and encourage the continual preservation of employment lands and their development.

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Economic Development Infrastructure, Financing and Coordination Infrastructure is integral to realizing economic development goals, since the deployment of goods and services are transported via physical or virtual means. The building blocks of a viable economy must include both direct and indirect investments. Direct investment embodies the traditional mechanisms of funding infrastructure improvements, developing shovel ready sites, or funding economic development programs, etc. Indirect investments such as time and resource savings are realized through

streamlined processes, development support, and progressive land use policies.

5.3 Goal: Encourage viable economic development centers.

5.3.1 Objective: Coordinate with economic development partners to expand the County's economic development infrastructure.

Policies:

5.3.1.1 Coordinate economic development activities with jurisdictions, counties, and other public, quasi-public and private sector entities.

5.3.1.2 Cooperate with other jurisdictions and the development community to identify and plan common infrastructure needed for economic development.

5.3.1.3 Move forward aggressively with further study of the potential commercial airport by working with the FAA and ADOT Aviation Department.

5.3.1.4 Take advantage of any available state and federal resources to enhance telecommunications infrastructure and support efforts to provide high speed broadband service County-wide and expand wireless capabilities.

5.3.2 Objective: Maintain a conservation and fiscal philosophy that fosters and exemplifies efficient development.

Policies:

5.3.2.1 Encourage development in a pattern that mitigates the need to extend infrastructure excessive distances to provide service and support.

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5.3.2.2 Encourage development of Employment Centers such as large Business Parks, in some instances, to occur in cooperation with the private development community and include critical infrastructure that provides attractive and competitive sites for economic sectors targeted for a given area.

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Chapter 6: Open Spaces and Places

Open Spaces and Places

Introduction

The Open Spaces and Places chapter encourages appropriate long range growth planning opportunities, provides for a wide range of recreational activities for residents and visitors, preserves the County's rural and natural open space character and contributes to the well-being of its communities.

Purpose The purpose of the Comprehensive Plan Open Spaces and Places chapter is to promote the County's quality of life by providing passive and active recreational opportunities, conserving existing natural resources and cultural heritage for the benefit of present and future generations.

Relationship to Pinal County's Vision Throughout the planning process, residents reinforced their commitment to the preservation of open space and access to trails and recreational opportunities. The Vision component states:

> *Open Spaces and Places – Residents value the large connected open spaces and unique places of Pinal County, not only as part of their quality of life, but as an important resource to sustain the region's immense wildlife habitat and corridors. From the majestic mountains rising from the desert floor in the west to the high desert and rugged mountain terrain to the east, enjoyment of and respect for the natural surroundings is a big part of why people choose to live and visit Pinal County.*

With the adoption of the *Pinal County Open Space and Trails Master Plan*, Pinal County took a leadership role on this issue. To implement

The Open Spaces and Places chapter incorporates the key elements from the *Pinal County Open Space and Trails Master Plan* adopted in 2007. For more details about research, analysis, additional maps, and implementation specifics, the Master Plan should be referenced for projects being considered for development in Pinal County. However, this chapter provides an understanding of open space and trails requirements that should be used when considering a Pinal County project.

the Master Plan, Pinal County will work closely with municipalities, private landowners and state and federal agencies to identify and implement strategies to achieve the mutually beneficial goals of preserving natural and environmental features that make Pinal County special.

Strategic Areas

The siting of specific proposed open space areas and trail corridors was based on the suitability of activities, surrounding land uses, ecological factors, topography, viewsheds, and cultural resources. Four overall open space designations are identified that address previous planning efforts of other entities, existing or future land management, operational activities and the planning efforts of this study.

Land Ownership Considerations

When considering future potential open space areas or regional parks, it is important to take into consideration the property ownership.

Federal Lands USFS manages lands for the sustained yield of goods and services from national forest lands to maximize long-term public benefits in an environmentally sound manner. The USFS has authority under a number of statutes, when it is in the public interest, to exchange lands with non-federal parties within the boundaries of national forests. Public interest considerations include: state and local needs; protection of habitats, cultural resources, watersheds, and wilderness and aesthetic values; enhancement of recreation opportunities and public access; consolidation of lands for efficient management; implementation or accommodation of

existing or planned land uses or plans; and fulfillment of public needs.

BLM preserves open space by managing public lands for multiple uses including recreation, livestock grazing, and mining, and by conserving natural, historic, cultural, scenic, and other resources found on public lands. The disposal of public lands is authorized through sales and exchanges as directed by the 1976 Federal Land Policy and Management Act. Pursuant to the Recreation and Public Purposes Act (R&PP), BLM lands may be entitled to a county or municipality to operate and manage as parks and recreational open space through a land patent.

BOR constructs and operates dams, reservoirs, canals, and other water management facilities. The BOR's overall mission is to meet the increasing water demands while protecting the natural environment and the public's investment in these structures. Much like the BLM, the BOR preserves open space by managing public lands for multiple uses, including agriculture and recreation, and by conserving natural, historic, and cultural resources through resource management plans. In instances where a use is not permitted on BOR lands, a permit may be required. The BOR's consideration of applications to use project lands and water surfaces is completely discretionary and reserves the right to refuse to authorize any use that may be incompatible with the federally authorized purposes of reclamation projects or interferes with rights or operations.

Acres that are designated for open space, recreation, conservation or agriculture on state lands and privately held lands where the County has not received consent for such designation from the landowner shall be allowed to develop at a density of at least one residential dwelling unit per acre in accordance with A.R.S. §11-824F.

State Trust Lands Under state charter, the Arizona State Land Department has the responsibility on behalf of beneficiaries to assure the highest and best use of trust lands. The federal enabling act and state constitution mandate that fair market value must be obtained from all trust land transactions that include sales and commercial leasing. All revenues derived from the sale of trust lands are placed in a fund that benefits 14 beneficiaries. Given this

well-defined mission, development can and does occur on state-owned land.

Private Ownership There are various private land holdings within Pinal County. These properties may be developed subject to the planning and zoning laws of the respective jurisdictions.

Tribal Lands Various Indian Tribes manage lands within Pinal County. These tribes include the Gila River Indian Community, the Tohono O'odham Nation, the San Carlos Apache Indian Reservation, and the Ak-Chin Indian Community. While development may occur on tribal lands, it is subject to the rules and regulations of the respective communities.

Designations of Private, State Trust, and Bureau of Land Management Lands Designation of private, State Trust, and Bureau of Land Management lands as open space or regional park has no regulatory impact. The designation represents Pinal County's desired future management of the lands if they were to be acquired or otherwise considered for management as open space or regional park. These lands may be developed subject to applicable planning and zoning regulations.

Pinal County Parks

Every community needs and wants areas dedicated to active recreation. Pressures have increased for additional parks, open space and trails on public and privately owned land. In 2000 the population of Pinal County was 179,727 and is expected to continue to grow. Failure to provide adequate facilities overburdens existing parks and forces residents to travel long distances to take advantage of recreational opportunities.

Currently, the County manages and maintains five parks throughout the County which includes 295.6 acres (table 6-1). Recreation areas owned and maintained by homeowners' associations (HOA) were not inventoried.

6-1: Pinal County Parks

Parks	Acreage
Dudleyville Park	9.94
Oracle Park	4.92
Pinal County Fairgrounds	120.00
Pinal West/Kortsen Park	160.00
Randolph Park	0.74

Source: Pinal County Open Space and Trails Master Plan, 2007

Open Space

Natural open space is essential to the overall well being of a community. Natural open space in Pinal County is being developed at a rapid rate. Open space conserves existing resources such as natural scenic beauty, view corridors, biological, agricultural and cultural heritage for everyone's enjoyment.

The growing need for a public open space system to protect natural resources, critical habitats, and other environmentally sensitive lands is a key area of focus for the County. In 2003, Arizona State Parks conducted a telephone survey of residents in Pinal County. The survey results indicated that respondents preferred nature oriented parks and would prefer to see acquisition dollars go toward buying large open spaces with habitat for wildlife.

The benefits of open space preservation are well known. Open space protects our water supply, reduces flood hazards, promotes diversity of plants and wildlife, and provides places for the enjoyment of nature and scenic beauty. By preserving open space

within the framework of parks, greenways, and other preserved land, an interconnected system of natural and cultural resources can be established. There are several ways in which open space can benefit Pinal County:

Wildlife and native plant habitat Open spaces provide habitat for native plants and animals that cannot live in urban and suburban environments. Large tracts are particularly important to native species. Large desert areas are also needed to support many native birds.

The plan identifies high-value habitat areas which are typically undisturbed (relatively pristine) areas with good wildlife movement corridors, and provide optimal cover, food, and water resources. Critical habitats, as defined by the Endangered Species Act, are areas that are occupied by a species listed as threatened or endangered within which are found geographical features essential to the conservation of the species, or an area not currently occupied by the species, which is itself essential to the conservation of the species.

Sensitive lands and natural resource preservation Open space can be used to preserve unique and sensitive natural features, including but not limited to the mountains and hills, large rock formations, native landscape, archeological and historical sites and significant washes.

Water quality protection and flood prevention Natural washes retain flood waters and reduce flood damage. They can also provide valuable wildlife habitat if protected in appropriate amounts and configurations. Groundwater supplies are replenished in places where water soaks into the soil and reenters aquifers.

6-2: National Forests, Monuments, State Parks or Wilderness Areas Within Pinal County

Recreation Area	Acres Within Pinal County	Managing Agency
Aravaipa Canyon Wilderness Area	17,133	BLM
Boyce Thompson Arboretum	323	Arizona State Parks
Coronado National Forest	26,071	USDA Forest Service
Ironwood Forest National Monument	25,372	BLM
Lost Dutchman State Park	286	Arizona State Parks
McFarland State Historic Park	2	Arizona State Parks
Oracle State Park	4,000	Arizona State Parks
Picacho Peak State Park	335	Arizona State Parks
San Tan Mountain Regional Park	10,213	Maricopa County
Sonoran Desert National Monument	55,735	BLM
Superstition Wilderness Area	73,177	USDA Forest Service
Table Top Wilderness	32,394	BLM
Tonto National Forest	127,466	USDA Forest Service
Tortolita Mountain Park	27,413	Pima County
White Canyon Wilderness	5,790	BLM

Source: Pinal County Open Space and Trails Master Plan, 2007

Agriculture Agriculture cannot remain financially viable without large open spaces in which it can be practiced. These landscapes are also an important part of the region's cultural heritage.

Recreation Hiking, biking, horseback riding, hunting, fishing, camping, and bird watching are recreational activities that require extensive open spaces and natural areas.

Sense of place Many of the things that help define Pinal County's character are associated with open space, including agriculture, historic structures, and scenic vistas. Open spaces provide areas of visual relief by providing areas without new development.

Education Functional open spaces provide areas to learn about the ecological connections among people, wildlife, and the land.

Existing/Planned Open Space areas such as the national forests, national monuments, and wilderness areas were identified, as well as open space areas identified by municipalities.

Table 6-2, *National Forests, Monuments, State Parks, or Wilderness Areas within Pinal County,* shows the current existing recreation areas, their respective size, and the managing agencies found throughout the County. Within Pinal County there are currently eight National Forests, Monuments, or Wilderness Areas totaling approximately 363,138 acres. In addition, several state parks and

mountain parks are located within the County that total approximately 42,572 acres.

Regional Trails

There are four primary regional trail corridors that are currently planned or being developed. The four corridors are: the Arizona Trail, the Central Arizona Project (CAP) canal corridor, Juan Batista De Anza National Historic Trail, and the Great Western Trail.

The ***Arizona Trail*** The Arizona Trail is a 790-mile non-motorized state scenic trail that hikers, bikers and equestrians can use. Through use of existing trails or primitive roads, the Arizona Trail connects Utah and Mexico through Arizona.

The ***Central Arizona Project Canal*** The CAP canal is a 336-mile-long system of aqueducts, tunnels, and pipelines constructed by BOR. The intent is to include a 10-foot wide paved, non-motorized path adjacent to these facilities. The trail will also provide a connection to the Maricopa County Regional Trails System.

Juan Bautista de Anza National Historic Trail This 1,200-mile trail will follow the Santa Cruz River to the Pima villages along the Gila River, and then follows the Gila to its Junction with the Colorado River. The intent of the trail is to provide a multi-modal, paved and non-paved historic recreational trail.

Great Western Trail The Great Western Trail (GWT) will traverse the 4,455 miles from Mexico to Canada. The multi-modal GWT takes advantage of linking existing trails and roadways through publicly-administered BLM lands and linking 18 National Forests.

Open Space and Places Plan

Pinal County Parks

In order to provide adequate recreational facilities for County residents a level of service was developed from a comparison of the National Recreation and Park Association (NRPA) standards and benchmarking of similar communities. The desired level of service for public or private park land in Pinal County is displayed in table 6-3.

6-3: Park Level of Service

Park Type	*Desirable Size (Acres)*	*Service Area (Radius)*	*Responsible Party*
Neighborhood Parks	8.0-10.0	½ mile	Developer/HOA
Community Parks	60-100	3 mile	Developer/HOA
Regional Parks	200+	½ hour drive time	Pinal County

Source: Pinal County Open Space and Trails Master Plan, 2007; Pinal County Comprehensive Plan, 2009

The County is using level of service standards identified in table 6-3, to calculate the need for new park facilities using the 2025 Pinal County population of 1,206,000. The existing parkland at the neighborhood, community and regional level is severely deficient based on the desired level of service. The need to provide parkland to enhance the level of service for the existing and future population is presented in table 6-4.

The County should create standards for residential developments to set aside land, develop and maintain neighborhood and community parks. These standards need to assure that all projects provide the same amount of land for parks per single family dwelling unit.

6-4: Park Acreage Needs

Park Type	*Existing Facilities*	*Total Need by 2025*	*Level of Service Gap*
Neighborhood Park	3 (15.61 ac)	3,618 ac	3,602 ac
Community Park	2 (280 ac)	6,030 ac	5,750 ac
Regional Park	None	7,236 ac	7,236 ac
Total	5 (295.61 ac)	16,884 ac	16,588 ac

ac = acre

Source: Pinal County Open Space and Trails Master Plan (2007); Pinal County Comprehensive Plan, 2009

Community parks should only occur in developments which are large enough to build and maintain them.

Park standards should be placed in the Zoning Ordinance to assure that these important facilities are developed for our citizens. A standard should also be developed for regional parks, so that the County can gauge how much land to acquire and develop for regional parks. Standards for all parks should be based on NRPA standards, as well as benchmarking from similar communities.

The types of parks provided by developments can vary depending on the demographics of a proposed community. When standards are implemented, applicants for PADs should have the opportunity to submit information as part of their PAD application that shows the proposed community demographics and their proposal to provide high quality recreation to fit the demographic profile.

Neighborhood and Community Parks Pinal County's neighborhood and community parks are to be developed, maintained and operated by private development or associations for use by the residents of the development. In the past, the County has not always differentiated between neighborhood parks and small recreation areas provided by private development. The County currently requires that at least 15% of the total area in all Planned Area Developments (PAD) be designated as open space. Sometimes these areas are small, poorly located, and do not provide the recreational level of service needed for a neighborhood park. As a result, some of the residents of the County are not served with appropriate neighborhood or community parks. By applying the level of service standards new development will be able to meet the parks needs of new residents.

Regional Parks Five new regional parks are proposed. These regional parks will ensure a service level access to regional and national recreational open space within a 30 minute drive from

anywhere within Pinal County. These parks will be developed, maintained and operated by Pinal County or other counties. Additional acreage for regional parks can be provided through a variety of other preservation/acquisition techniques, as discussed in Section 11.7, (*Open Space Preservation Techniques* in the *Open Space and Trails Master Plan*).

The following describes the five proposed regional parks:

- The regional park proposed along the east side of the Town of Florence planning boundary may provide passive and active recreational opportunities.
- The regional park proposed to the north of Picacho Peak State Park may provide more passive-oriented recreational opportunities that would conserve the natural resources located within this area while allowing users to experience the natural environment.
- The regional park located west of SR 79 and east of the proposed regional park near Picacho Peak State Park may provide active and passive recreational opportunities.
- The regional park proposed on the western edge of the County was identified in the City of Maricopa's General Plan, and represents the desired future plans for the City. The County has identified additional areas surrounding the proposed regional park, and has provided additional connectivity to the Table Top Wilderness Area.
- The regional park located north of Florence Junction may provide passive and active recreational opportunities that would help to support the growing needs of the users located in the surrounding communities and municipalities.

Open Spaces

The open space designations shown on the Comprehensive Plan were based on the County's resource opportunities and constraints;

and public, stakeholder and County staff input. The proposed open space areas identified on the plan are based on protection and connectivity of the following items identified during the in-depth analysis of the County's natural and cultural resources.

Riparian and Mountainous Areas The Gila, San Pedro and San Cruz Rivers were identified as the three most important riparian corridors throughout the County, and deserve the highest priority for preservation. In addition, the mountainous areas such as the Pinal, Superstition, Black, Dripping Springs, Sierra Estrellas, Tortilla, San Tan, Santa Catalina, Table Top, Palo Verde, Casa Grande, Sacaton, Sawtooth, Sameniego Hills, Picacho Mountains and Tortolita Mountains indicate a high level of biodiversity and high habitat values and should be preserved.

Open Space Connections A network of wildlife movement corridors was established to connect the Coronado National Forest to the Tortolita, Picacho and Black Mountain areas. Additionally, connections were established to existing open space corridors within the municipalities of Florence, Casa Grande, Apache Junction, Queen Creek and Maricopa.

Bajadas are shallow slopes that lie at the base of rocky hills, where materials accumulate from the weathering of the rocks. They typically have a mixture of boulders, stones, gravel, sand and silt particles, creating a deep and complex soil structure that retains water and supports a rich vegetation.

Open Space Buffers Buffer areas around the Ironwood Forest National Monument, Superstition Wilderness area, Tonto National Forest, Coronado National Forest, Aravaipa Canyon Wilderness area and the Sonoran Desert National Monument were established to further protect these natural resource areas. Additionally, significant cultural resources are present on the bajadas surrounding these National Forests, Monuments and Wilderness Areas. Bajadas are important for maintaining ecological integrity throughout the County because they generally provide high-value habitats for both plant and animal species. Extending the range of these National Forests, Monuments and Wilderness Areas to

include the bajadas, provides another level of protection to the County's natural and cultural resources.

Regional Connectivity The Plan also provides regional connections through open space areas and open space corridors to already existing open space areas in adjacent counties. Providing regional connectivity to these already existing open space areas in adjacent counties with the existing or planned open space areas within Pinal County creates a regionally connected network of open space areas.

Open Space Designations Four open space designations are identified on the Plan that address previous planning efforts of other entities, existing or future land management operational activities and this study's planning efforts. Following are identified open space designations.

Existing/Planned Open Space represents areas identified, such as the national forests, monuments and wilderness areas, as well as open space areas identified by municipalities (per the date of this Plan).

Existing/Planned or Proposed Regional Parks are existing or planned regional parks that have been identified from previously adopted County or municipal plans (per the date of this Plan). Proposed regional parks are those areas that were identified through the master planning process and are discussed below.

Restricted Use Open Space areas allow limited access to the public for recreational purposes due to the land manager's operational activities. It is the land manager's responsibility to secure the area and provide notifications and signage for the public when the property is not available for public use.

Proposed Open Space areas are those that had not been previously identified by any entity as existing or planned open space.

Of the 3,437,517 acres within Pinal County, the open space is comprised of the following percentages of the above mentioned open space designations:

- Existing/planned open space = 399,300 acres (12%)
- Existing/planned or proposed regional parks = 168,700 acres (5%)
- Restricted use open space = 25,900 acres (1%)
- Proposed open space = 802,400 acres (23%)

Proposed Trail Corridors Providing equitable access to the County's resources through an interconnected multi-modal trail network ensures a variety of passive and active recreation opportunities. The foundation of the trail system shown on the *Open Space and Trails Master Plan* map relies on a skeletal framework of three regional trail corridors. The Juan Bautista de Anza National Historic Trail, the CAP Canal, and the Arizona Trail, which all provide regional connectivity throughout Pinal County from Pima County to the south to Maricopa County to the north and west. A secondary linkage for the Juan Bautista de Anza National Historic Trail was established south of the Gila River Indian Community along Val Vista Road and connects to SR 238 to provide an alternate route. East-West connections were developed using drainageways and both paved and unpaved roads. Whenever possible, public infrastructure was used to create the trail linkages but due to homeland security concerns, utility corridors were excluded from the proposed regional trail network—unless the utility corridor had already been indicated in an existing approved plan. Future planning efforts should not exclude the use of utility corridors for trails where possible.

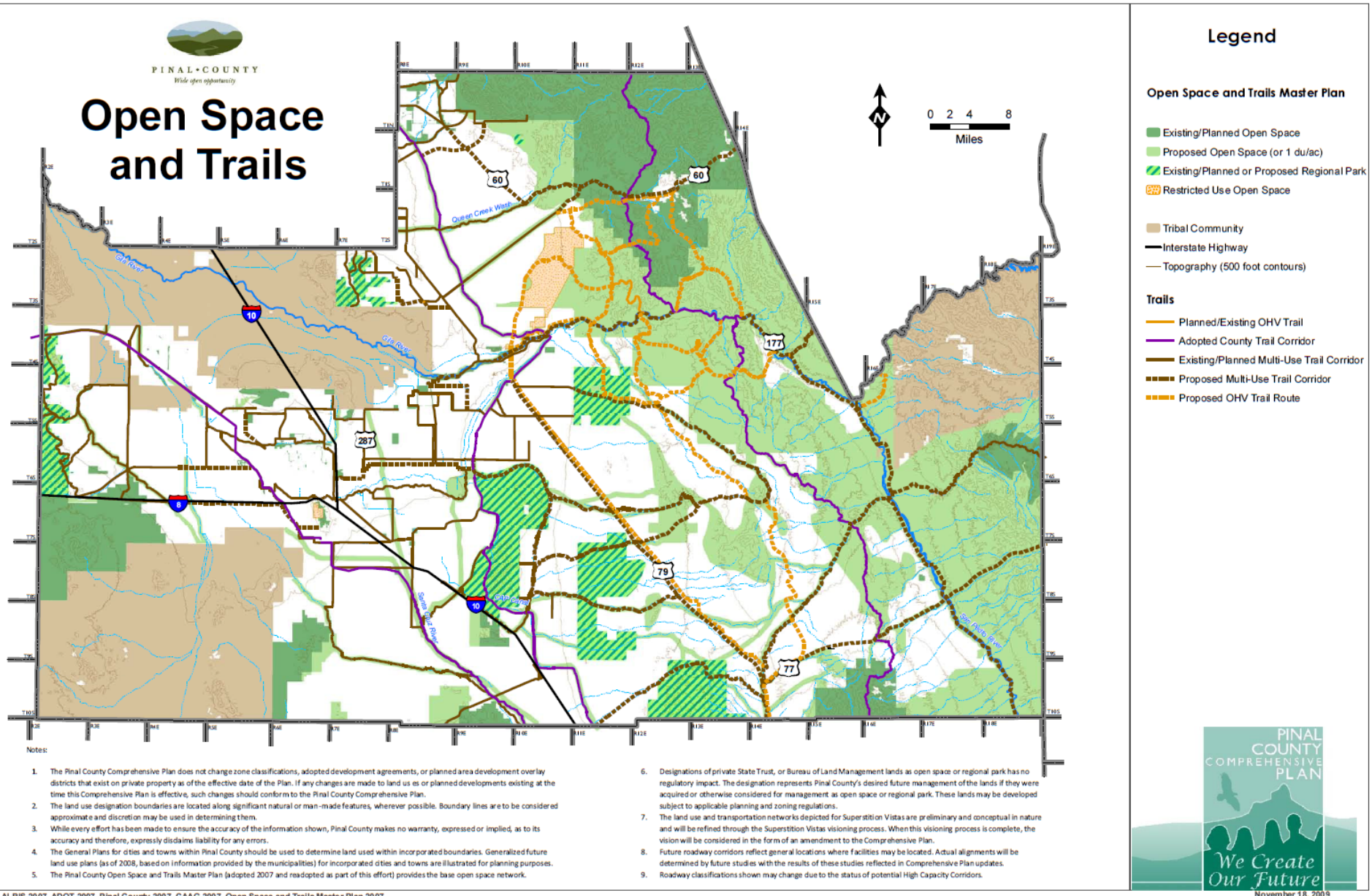
Pinal County should work with the Arizona Game and Fish Department to identify those roads that should be open to the public which provide important access to public lands. Currently access into the Galiuro Mountains from Eastern Pinal County is limited. In many parts of the East County access is limited to BLM lands surrounded by state trust lands and access to state trust lands is controlled by private interests.

All planned or existing trails were identified in previous County and municipality plans, and initially mapped into the Base Data Map (see *Open Space and Trails Master Plan)*. Proposed connections were established to link all existing or planned trail networks within and adjacent to the County. Major regional connections include connections to the Maricopa County Regional Trail System through the Vekol Wash and the Juan Bautista de Anza National Historic Trail to the west and the Arizona Trail, CAP Canal, and Queen Creek Wash to the north. Connections to the Eastern Pima County Trail System were established through the CAP Canal, Juan Bautista de Anza National Historic Trail, and the Arizona Trail, as well as through Oracle Junction. Although Graham and Gila counties do not have adopted trails plans, anticipated and likely connections were established through the US 60 Gila-Pinal Scenic Byway, Aravaipa Canyon Wilderness area, and the future Tam O'Shanter State Park east of Kearny.

Separation of motorized and non-motorized trail users was an important factor when determining trail corridor locations. Providing a looping off highway vehicle (OHV) trail that was separate from the proposed and existing multi-use non-motorized trail network was established by building on the framework of the existing GWT. Both primitive roads and paved roads were used in conjunction with the GWT to create a looping OHV trail from the Desert Wells OHV area in the northern portion of the County to Oracle Junction in the south and to Florence in the central portion of the County.

The Master Plan links planned or existing municipal trail systems in Florence, Coolidge, Casa Grande, Maricopa, Queen Creek, and Eloy to provide a regionally connected trail system. In addition, communities that do not have previously established trails plans were provided convenient and close access to the regional trail system. Connections to all natural recreation areas including National, State and County parks, National Monuments and Forests, and Wilderness Areas within the County were established using multiple trail corridor loops that provide varying degrees of difficulty for a variety of trail users.

6-5: Open Space Plan



Notes:

1. The Pinal County Comprehensive Plan does not change zone classifications, adopted development agreements, or planned area development overlay districts that exist on private property as of the effective date of the Plan. If any changes are made to land us es or planned developments existing at the time this Comprehensive Plan is effective, such changes should conform to the Pinal County Comprehensive Plan.
2. The land use designation boundaries are located along significant natural or man-made features, wherever possible. Boundary lines are to be considered approximate and discretion may be used in determining them.
3. While every effort has been made to ensure the accuracy of the information shown, Pinal County makes no warranty, expressed or implied, as to its accuracy and therefore, expressly disclaims liability for any errors.
4. The General Plans for cities and towns within Pinal County should be used to determine land used within incorporated boundaries. Generalized future land use plans (as of 2008, based on information provided by the municipalities) for incorporated cities and towns are illustrated for planning purposes.
5. The Pinal County Open Space and Trails Master Plan (adopted 2007 and readopted as part of this effort) provides the base open space network.
6. Designations of private State Trust, or Bureau of Land Management lands as open space or regional park has no regulatory impact. The designation represents Pinal County's desired future management of the lands if they were acquired or otherwise considered for management as open space or regional park. These lands may be developed subject to applicable planning and zoning regulations.
7. The land use and transportation networks depicted for Superstition Vistas are preliminary and conceptual in nature and will be refined through the Superstition Vistas visioning process. When this visioning process is complete, the vision will be considered in the form of an amendment to the Comprehensive Plan.
8. Future roadway corridors reflect general locations where facilities may be located. Actual alignments will be determined by future studies with the results of these studies reflected in Comprehensive Plan updates.
9. Roadway classifications shown may change due to the status of potential High Capacity Corridors.

Source: ALRIS 2007, ADOT 2007, Pinal County 2007, CAAG 2007, Open Space and Trails Master Plan 2007

November 18, 2009
Updated: November 16, 2012

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

6.1 Goal: Develop a connected system of open space areas that protect and conserve natural, physical and social resources.

6.1.1 Objective: Identify, preserve, protect or conserve areas of critical habitat and high habitat value and wildlife movement corridors.

Policies:
6.1.1.1 Adopt special regulations for development in areas of critical habitat value and in wildlife movement corridors.

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6.1.1.2 Explore implementation of flexible zoning techniques that promote open space preservation and protection of natural resources and critical habitats.

6.1.1.3 Encourage density transitions to separate rural from urbanized areas and to buffer preserve areas from urbanized areas.

6.1.1.4 Encourage contiguous open space through close coordination between development projects.

6.1.1.5 Encourage developers and other land owners to plan for key contiguous open acre areas, corridors and/or linkages during the zoning stage.

6.1.1.6 Consider developing land preservation techniques to acquire and preserve open space.

6.1.1.7 Consider developing a management plan to maintain and enhance the desired type and level of wildlife habitat within the County's regional park and open space areas.

6.1.1.8 Consider developing a wildfire management plan for the County's regional park and open space areas to minimize hazardous conditions in the natural and built environment.

6.1.1.9 Develop open space and trail standards and criteria to provide sufficient buffer zones relative to roadways, river and wash corridors, critical habitat, sensitive lands, and development areas.

6.1.10 Consider development standards for hillsides and other environmentally sensitive lands that allow development standards and infrastructure to respond in an

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innovative manner to topography, drainage, critical habitats and other land sensitivities.

6.1.2 Objective: Preserve, protect, or conserve the existing natural drainage system.

Policies:

6.1.2.1 Identify the significant natural washes and develop a Countywide storm water management plan that preserves the significant natural washes and adopt development regulations to implement the storm water management plan.

6.1.2.2. Develop a watershed management plan that protects the County's key contributing areas to promote water quality and conservation for future generations.

6.1.2.3 Encourage landowners to work through regional and federally-recognized solutions to remove property from floodplains to allow safe development and protection of future homeowners.

6.1.3 Objective: Identify, preserve, and protect cultural resources that have cultural significance and provide a link to historic events.

Policies:

6.1.3.1 Promote and provide incentives for subdivisions to conserve cultural resources within the County.

6.1.3.2 Enhance community awareness and increase public support of local cultural opportunities.

6.1.3.3 Explore agreements with landowners in cultural and historic areas to ensure appropriate use and preservation of cultural and historical resources.

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6.2 Goal: Develop a safe, multi-use trail system that provides connectivity throughout the County and to adjacent recreational areas.

6.2.1 Objective: Provide for a wide range of nonmotorized and motorized trail usages including hiking, equestrian, mountain biking and off-highway vehicles.

Policies:

6.2.1.1 Encourage multi-use path and trail corridors for connectivity throughout the County.

6.2.1.2 Encourage a safe separation of non-motorized and motorized trail networks and corridors.

6.2.1.3 Develop trail standards that ensure compatibility with the natural environment, existing land uses and a variety of users, as well as provides for the safety of all.

6.2.1.4 Work towards establishing between open space areas, regional parks and trails, schools, employment centers, shopping centers and state and federal recreational areas.

6.2.1.5 Encourage public access to all trails by coordinating with public agencies and private developers to ensure that appropriate public trail connections and access points are planned, constructed and maintained.

6.2.1.6 Encourage and promote the benefits of volunteer labor and material donations for trail development and maintenance.

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6.2.1.7 Establish a management plan for the development and upkeep of the County's trail system and coordinate trail development and on-going maintenance as part of the County's CIP and operational budget process.

6.2.1.8 Seek opportunities to designate and/or construct trails on lands already under public ownership.

6.2.1.9 Establish methods for public trail acquisition, design, construction and maintenance that maximize alternative funding opportunities and community support.

6.2.2 Objective: *Establish a manual that provides regional trail connectivity details.*

6.3 Goal: Develop an accessible, comprehensive park system that provides a balance of passive and active recreational opportunities for County residents and visitors.

6.3.1 Objective: Identify, protect and conserve Countywide opportunities to meet future park and recreation demands.

Policies:

6.3.1.1 Develop a coordinated process to prioritize land acquisition and design, construction and operation of all new park facilities in the County.

6.3.1.2 Identify specific parks, open space and trail amenities and their timely implementation to provide the service level desired by County residents and visitors.

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6.3.1.3 Develop design standards for the renovation of existing and construction of new parks, open space and trails in Pinal County.

6.3.1.4 Encourage development projects to designate, provide, and coordinate public access to public open space, parks, trails, conservation areas, foothills and mountains.

6.3.1.5 Integrate parks and open space needs into the County's Capital Improvement Program (CIP).

6.3.1.6 Develop passive recreational activities which are sensitive to the natural environment.

6.3.1.7 Encourage developers to identify and protect key contiguous open space areas, corridors and/or linkages during the master planning stage and the plan review process.

6.1.3.8 Evaluate all new park equipment and site amenities to minimize safety hazards.

6.1.3.9 Ensure a frequent schedule of park maintenance and safety inspections.

6.4 Goal: Improve the quality, quantity and design of open space, park lands and trails in new residential development.

6.4.1 Objective: Develop guidelines to meet the park land and facility demands for neighborhood and community parks created by new development.

Policies:

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6.4.1.1 Encourage developers to meet the park land and facility demands for neighborhood and community parks created by new development.

6.4.1.2 Implement Growing Smarter and Growing Smarter Plus legislation policies to protect the County's open space.

6.4.1.3 Develop standards and development criteria for integration of park land, open space and trails into new residential development.

6.4.1.4 Develop standards for construction and maintenance of parks and trails to ensure long term usability.

6.5 Goal: Encourage coordination and cooperation between adjacent municipalities, agencies, jurisdictions and the public in open space, park and trail development.

6.5.1 Objective: Build relationships among municipalities, County, state and federal agencies, landowners/managers to provide recreation and open space opportunities.

Policies:

6.5.1.1 Create a coordinated process to maximize municipal, County, state and federal recreational plans and resources.

6.5.1.2 Coordinate with the Bureau of Land Management and Arizona State Land Department for the designation, disposition, management and acquisition of lands under their management in Pinal County.

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6.5.1.3 Coordinate the location of future parks, open space and trails with the other agencies and jurisdictions within Pinal County to ensure connectivity and best use of resources.

6.5.1.4 Seek opportunities for easements, dedications, joint use agreements and/or other appropriate methods with other public agencies, jurisdictions and/or private property owners.

6.5.1.5 Develop a management plan that identifies responsible parties for operating, maintaining and enforcing the appropriate usage of the County's regional parks, open spaces and trail corridors.

6.5.1.6 Develop public education and outreach programs to assist in the development of the Open Spaces and Places Chapter of the Comprehensive Plan.

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Chapter 7: Environmental Stewardship

Environmental Planning

Introduction

Pinal County will be seen as a leader in environmental stewardship and conservation practices by promoting the preservation of the natural environment and its availability for discovery by the growing population and visitors. The Sonoran Desert is a unique ecosystem to be enjoyed and protected.

Purpose The Environmental Planning element provides guidance on how to maintain the environmental integrity of Pinal County while continuing to grow in a way that is compatible with the County's values and Vision. Environmental concerns overlap municipal boundaries and cross multiple jurisdictions. This Plan places a high priority on intergovernmental and interagency communication and cooperation. Much of the land in central and eastern Pinal County is relatively undeveloped at the present time. Some will likely see development in the future. The quality of the natural environment can influence the character of a community as well as property values and economic development.

Relationship to Pinal County's Vision The ethic of sustainability is reflected in the Pinal County Vision statement. The Vision prioritizes both open spaces/places and environmental stewardship. Residents value a strong conservation ethic that stresses the importance of maintaining the quality of Pinal County's natural resources for future generations. Sustainable practices such as innovative land use planning, sustainable agriculture, water conservation, green building development, and the use of renewable and alternative energy resources can be used to achieve this Vision. Residents and visitors value the large, connected open spaces and unique places of Pinal County, not only as part of their quality of life, but as an

important resource to sustain the region's wildlife habitat and wildlife movement corridors. Open space preservation is being implemented through the County's *Open Space and Trails Master Plan*, adopted by the Pinal County Board of Supervisors in 2007.

Strategic Areas

This element characterizes components of the environment, recognizing that each component plays an important role in the long-term viability of Pinal County and its quality of life. To develop a sustainable community, these elements need to be considered together, reflecting local and regional opportunities to advance environmental stewardship across boundaries.

Environmentally Sensitive Areas

Environmentally sensitive areas are natural features and resources that are relatively rare, especially valuable or vulnerable to negative impacts. While Pinal County has not developed formal criteria or designated specific areas, floodplains, riparian areas, wetlands, subsidence and fissure zones, steep slopes, and critical wildlife linkage zones could be considered environmentally sensitive areas. These areas can serve as habitats for rare and endangered plant and animal species, be instrumental in ground water recharge, or serve as flood control to protect developed areas. In many cases, relatively small disturbances can lead to negative environmental impacts. Environmentally sensitive areas require special consideration during development design processes.

Floodplains Portions of the County are located within Federal Emergency Management Agency (FEMA) designated floodplains. Most of the County lies in a Minimal Flood Hazard Area, with Special Flood Hazard Areas along portions of the larger rivers,

streams and washes including the Santa Cruz River, Greene Wash, Gila River near Florence and San Pedro River. There are undetermined flood hazard areas in the vicinity of Tonto National Forest, Oracle and the Table Top Mountains. Minimal Flood Hazard Area refers to an area where flood insurance is available but not mandatory by federally regulated lenders. Special Flood Hazard Area refers to an area, which is at a higher risk of flooding. Tonto National Forest, parts of the Coronado National Forest and a small area just north of the Tohono O'odham Indian Community in the Sonoran Desert National Monument lie in an Undetermined Flood Hazard area. These are areas with possible but undetermined flood hazards where no flood hazard analysis has been conducted.

Flooding can result in property damage and be dangerous for people. Given those hazards, areas with the potential to flood require special consideration during the design development process. Floods and floodplain's are unpredictable and understanding the nature of potential flood hazards, such as flood water levels and events, is fundamental in planning development in or near a floodplain. FEMA is the federal agency that maintains and updates flood hazard mapping in the form of Flood Insurance Rate Maps. If development is proposed in or around a flood hazard area, the floodplain can and should be engineered to minimize hazards to people and property.

Riparian Areas and Wetlands The habitat zones found immediately adjacent to streams and lakes are called riparian areas. Riparian areas encompass not only the bed or channel of the water body, but the surrounding banks, bars, ponded waters, and floodplain surfaces. There is a great concentration of vegetation, birds and wildlife in these areas, and because the surrounding Sonoran Desert is so arid, these areas are especially distinct and rare in Pinal County. Some of the larger riparian areas are found along the major creeks and rivers in Pinal County, including Queen Creek, Gila River, San Pedro River, Araivapa Creek, and the Santa

Riparian areas are habitat zones found immediately adjacent to streams and lakes.

Cruz River. There are numerous smaller riparian areas found along other canyons and creeks within Pinal County. These areas perform many functions within an ecosystem, such as serving as important fish and wildlife habitat, improving surface water quality, stabilizing stream banks, flood control, and providing an area for groundwater recharge. Riparian areas occupy a very small percentage of the total land area in Arizona, but the ecological value is disproportionate to their size.

In general terms, wetlands are lands on which water is present at or near the surface during significant portions of the year. Wetlands support valuable plant and animal habitat, can improve water quality, and also serve important hydrologic functions. Some of the largest wetland areas in the County are associated with the San Pedro River, but there are additional wetland areas throughout the County.

The habitat areas along the Gila and San Pedro Rivers are home to several thousand plant and animal species and are diverse and fragile ecosystems. The San Pedro River's cottonwood-shaded corridor supports about 350 bird species and provides critical stopover habitat for up to four million migrating birds each year. The San Pedro flows north from the Mexican state of Sonora into Arizona to join the Gila River, one of only two major rivers that flows north out of Mexico into the United States. It also is one of the last few large undammed rivers in the Southwest. The San Pedro is ecologically important as it supports avian diversity; about 100 species of birds breed around the river and an additional 250 species use the corridor for migration and winter range. It also provides habitat for 80 species of mammals.

Riparian habitat and wetland areas are dependent upon water supplied by the rivers and lakes they line. As water supplies change in quantity and quality, the natural state of these areas constantly evolves.

Any potential or proposed development within rivers, streams, creeks, or washes may be subject to regulation by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Any activities that could affect water quality would need to be reviewed by Arizona Department of Environmental Quality (ADEQ) for compliance with Sections 401 and 402 of the Clean Water Act, which is administered through the Arizona Pollutant Discharge Elimination System program on all non-tribal and non-federal lands. The EPA administers the National Pollutant Discharge Elimination System on some tribal and federally-managed lands within Arizona.

Land Subsidence and Earth Fissures Land subsidence occurs when water is removed from underground reservoirs and the underlying material compresses, causing the surface land to settle. The degree of potential subsidence varies by location.

Earth fissures are associated with land subsidence. Fissures are cracks in the ground that occur because of uneven or differentiated land subsidence. Depending on circumstances, fissures can form gullies as much as 50 feet wide and 10 to 15 feet deep. Once fissures start to form, they tend to increase in number and length at uneven speeds and directions for several miles. Fissuring has occurred in various locations across the County. The first fissure to be noted in Arizona was located near Eloy in 1929, and that area is still considered one of the most active areas for subsidence and fissures in Arizona. In 2006, the Arizona Geological Survey began a study to identify and map the earth fissures throughout the state.

The effects of land subsidence and earth fissuring can be substantial as they may cause significant damage to infrastructure, increase flooding potential, facilitate groundwater pollution, and accelerate soil erosion. Development on lands that have historically experienced subsidence or fissuring require special consideration

during the design-development process, and may require engineered solutions to safeguard people and property from the hazards. Additionally, sites of subsidence and earth fissures are dependent upon geologic conditions, and are likely to cross over jurisdictional boundaries. Preventative measures may only be effective if surrounding land managing entities involved work together to address the hazards.

Steep Slopes Steep slopes and ridgelines can also be environmentally sensitive for many reasons. In general terms they are found in the numerous mountainous areas within Pinal County. Slopes greater than 15% are considered unsuitable for intense urban development, because such steep slopes are prone to soil erosion and landslides. Development on these slopes involves extensive cutting and filling, which damages the slope characteristics, affects the slope stability and creates significant visual scars.

Threatened species are defined as those likely to become endangered if not protected.

Endangered species are those in immediate danger of becoming extinct and in need of protection in order to survive.

Critical Habitat Areas Several federal agencies share the responsibility of protecting threatened and endangered species and their habitats, and to restore these species to a secure status. Preserving critical habitat areas is important.

Wildlife Linkages Fragmentation of wildlife habitat can threaten a species survival, isolating wildlife populations and disrupting ecological functions. The Arizona Wildlife Linkages Workgroup, a partnership of public and non-governmental agencies, recently completed *Arizona's Wildlife Linkages Assessment*. The Assessment documented and mapped initial efforts to identify habitat blocks, fracture zones, and potential linkage zones in an effort to promote wildlife habitat connectivity for Arizona's wildlife. The Assessment is intended to provide a framework for land managers and planners to assess opportunities for mitigation, such as wildlife crossings, land protection measures, and community planning.

Arizona also has a Comprehensive Wildlife Conservation Strategy, a plan for managing Arizona's fish, wildlife, and habitats through 2015. This plan was developed through a coordinated effort led by the Arizona Game and Fish Department with input from wildlife experts, federal and state agencies, sportsman and conservation organizations, Native American Tribes, local governments and private citizens. Accepted by the US Fish and Wildlife Service in 2006, the plan outlines strategies and conservation actions aimed at promoting partnerships and coordinating efforts among stakeholders in conserving Arizona's wildlife. It identifies species of priority for conservation efforts, habitat areas, and threats to those species and habitats. The plan offers a comprehensive set of conservation strategies, some of which emphasize conservation of wildlife habitat and maintaining or re-establishing habitat connectivity.

Vegetation

Within Pinal County there are five distinct regions or "biomes" which support a diversity of vegetative communities. Additionally, *riparian areas* support different and diverse plant communities growing around springs and along perennial (usually running) and ephemeral (flows in response to storm events) waterways.

A **biome** is a major regional or global biotic community, such as a grassland or desert, characterized chiefly by the dominant forms of plant life and the prevailing climate.

The five biomes in Pinal County are generally divided by elevation and include:

- *Madrean Evergreen Woodland* (above 5000 ft) juniper, oak, piñon pine
- *Interior Chaparral* (3000 to 8000 ft) manzanita, scrub oak, piñon pine
- *Semi Desert Grassland* (above 3500 ft) grass, yucca
- *Upland Sonoran Desert Scrub* (centered 3000 ft) paloverde, mesquite, ironwood, cat claw, saguaro, barrel cactus

- *Lower Colorado River Sonoran Desert Scrub* (0 to 1300 ft) creosote bush, salt bush and white bursage

Within riparian areas in lower elevations mesquite bosques are found; middle elevations support cottonwood and sycamore trees and higher elevations support alder and aspen.

Natural native vegetation adds value to Pinal County in many ways. Vegetation controls erosion, sustains wildlife, and provides food for livestock. Threats to native vegetation include loss of water as water tables drop, overgrazing and the effects of invasive species which sap resources (light and moisture) from indigenous plants. Converting areas of native vegetation can enhance the heat island effect. The heat island effect refers to the ability of vast areas of paved streets, sidewalks, parking lots, and rooftops to absorb and hold heat, making urban areas and the surrounding suburbs noticeably hotter than rural towns nearby.

Air Quality

Under the Clean Air Act, the EPA has established air quality standards to protect public health and the environment. Monitoring stations are in place to collect measurements of air pollutant concentrations. If the concentrations of any pollutant are found to exceed EPA standards, a formal rulemaking process designates the area as not attaining the standards (nonattainment).

Several areas within Pinal County have been found to exceed national standards for three pollutants: *ozone*, *particulate matter,* and *sulfur dioxide*. The remaining three pollutants for which the EPA has established standards are carbon monoxide, lead, and nitrogen oxide. All areas of Pinal County are designated as in attainment for those three pollutants.

At lower levels in the atmosphere, *ozone* is the primary constituent of smog. This is a larger air quality issue in the summer, because the formation of ozone depends upon the presence of sunlight. In Arizona, the summer ozone season begins in April and lasts through September.

A portion of the Phoenix non-attainment area for 8-hour ozone standards is in northern Pinal County, near Apache Junction. The Phoenix area is currently in attainment of 1-hour ozone standards, a designation changed from nonattainment in 2005. In March 2008, the EPA introduced new, more stringent national standards for 8-hour ozone. EPA will issue attainment designations based on the new standards in 2010. Although air quality in the Phoenix area had not exceeded the previous ozone standards for several years, the new standards are more demanding.

Particulate matter includes particles of dirt, dust, soot, smoke, and liquid droplets suspended in the air. Sources include factories, power plants, cars, construction activities, fires, agricultural operations, and windblown dust. Standards for particulate matter are split into two separate criteria based on the size of the suspended particle. The particulates causing concern in Pinal County range in size from 2.5 to 10 micrometers - many times smaller than the width of a human hair.

Sulfur dioxide is a gas formed from the combustion of sulfur-containing fuels, including coal and oil. Gaseous sulfur dioxide reacts readily with other particles in the atmosphere, creating sulfate particles that can lead to respiratory ailments when inhaled.

Chapter 4 Mobility and Connectivity of this plan provides a discussion of air quality planning as it relates to all modes of transportation and outlines associated goals, objectives and policies.

Air quality issues are not limited to the physical location of the source and the effects of air pollution almost always cross jurisdictional boundaries.

Noise

The word 'noise' is typically defined as unwanted sound. Noise associated with highways and heavily-traveled roadways can cause annoyance or interfere with activities nearby, and impact quality of life, productivity, health, and even property values. In response, the federal government has established measurable limits to noise resulting from roadways, railroads, public transit systems, and airports. These transportation modes are essential for Pinal County's future and noise is an impact that cannot always be avoided but it can be mitigated.

Business and industry also often has noise as a byproduct. It will be important for land use planning and zoning codes to locate these types of activities in appropriate areas with proper buffering.

Dark Skies

Arizona is one of the premier night sky viewing locations as evidenced by the location of several of the world's most advanced observatories. From a statewide perspective, all communities have a stake in preserving the environment conducive to night sky viewing. Light and air pollution reduce the night viewing capacity.

On a more local level, Pinal County residents value the star-filled night sky as one of the unique aspects of living in the County. Protecting the dark night skies would benefit the region's quality of life and astronomical observing conditions. Employing dark-sky friendly outdoor lighting fixtures is recognized as an effective way to preserve the night sky. These types of outdoor lighting fixtures

have additional benefits in that they are generally more energy efficient than traditional outdoor lighting fixtures.

Solid Waste

Since the late 1990s, Pinal County's solid waste has been collected and disposed of by the private sector. The County's role in the process has been to permit solid waste processing and disposal sites, and to encourage recycling where possible. The permitting process involves deciding what kinds of waste are allowed at individual sites, as well as choosing appropriate site locations. The Pinal County Material Recovery Center establishes collection sites, items accepted and hours of operation.

Landfills Locating new landfills is critical for the County in the face of explosive growth. It is necessary to ensure adequate landfill capacity to dispose of the waste from Pinal County residents.

Recycling and Reuse Several towns, cities, and subdivisions, as well as numerous businesses, maintain 150 recycling centers in Pinal County. The County maintains a Web site listing recycling center locations and the materials accepted at each site.

Hazardous Household Waste Hazardous materials, used in many household products (e.g., drain cleaners, waste oil, cleaning fluids, insecticides, car batteries, etc) are often improperly disposed of in normal household trash. When these hazardous materials make their way to landfills, they can cause environmental and human health problems.

Effective and environmentally-friendly solid waste management policies can move Pinal County closer to achieving its vision of becoming a pioneer in sustainable practices.

Environmental Education

Environmental education helps establish a preservation ethic that promotes stewardship and conservation. Since environmental stewardship is one of the components of the Pinal Vision, it is important for residents to understand that they play an integral part in the maintenance of the County's unique environment and how they can be involved in preserving it.

There are also tremendous eco-tourism opportunities in the County that are being supported by other elements of this plan. Visitor education is therefore also an important component that should be recognized.

Goal, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

7.1 Goal: Environmental stewardship is part of all decisions made and Pinal County has become a model for sustainability, with environmentally sensitive County codes, policies, and ordinances.

7.1.1 Objective: Promote ecologically responsible development patterns within Pinal County by utilizing the best available scientific information to avoid, minimize or mitigate impacts to environmentally sensitive areas.

Policies:

7.1.1.1 Coordinate with all land-managing entities and potential stakeholders affected by environmental hazards. This list may include federal or state agencies, Native American communities, local municipalities, or public groups and organizations.

7.1.1.2 Avoid, minimize or mitigate environmental hazards such as flooding, subsidence or fissure zones, and steep slopes.

7.1.1.3 Promote planning and decision-making that considers alternatives that would minimize or mitigate impacts to environmentally sensitive areas.

7.1.1.4 Strive to eliminate the fragmentation of wildlife habitat and support efforts to maintain or restore connectivity among habitats.

7.1.1.5 Support efforts to maintain up-to-date inventories of subsidence and fissure hazards, linkage to other

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databases on wildlife and habitat inventories (from sources such as the Arizona Game and Fish Department, Nature Serve, and The Nature Conservancy), make this data readily available, and encourage land-managing entities to consider those hazards during the design-development process.

7.1.1.6 Promote planning and decision-making that consider impacts to the entire landscape, not just specific development sites.

7.1.1.7 Consider maintaining open space on lands that are environmentally sensitive due to steep slopes, floodplains, watersheds, and habitat areas.

7.1.2 Objective: Protect Pinal County's vibrant natural ecosystem.

Policies:

7.1.2.1 Promote practices that prevent the introduction and spread of invasive species.

7.1.2.2 Encourage efforts to preserve native vegetation in open space areas.

7.1.2.3 Encourage efforts to integrate areas vegetated with native species into developed areas.

7.1.2.4 Promote planning and decision-making that minimize disturbance to riparian areas and wetlands.

7.1.2.5 Support continuing environmental research regarding the Sonoran Desert at existing and future educational institutions.

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7.1.3 Objective: Improve the County's air quality.

Policies

7.1.3.1 Work cooperatively with the Arizona Department of Environmental Quality so that Pinal County's air quality meet state and federal standards and are consistent with air quality in neighboring counties.

7.1.3.2 Maintain a collaborative working relationship with other counties and agencies to address regional air quality issues.

7.1.3.3 Promote construction practices that reduce airborne particulate matter.

7.1.3.4 Support agricultural practices that reduce airborne particulate matter.

7.1.3.5 Consider best management practices and strategies used by neighboring air quality planning bodies such as the Maricopa Association of Governments, in developing air quality improvement programs.

7.1.3.6 Promote public education on air quality issues.

7.1.3.7 Encourage trip reduction programs that reduce the number of vehicle-miles traveled by commuters in Pinal County.

7.1.3.8 Support efforts to reduce emissions from wood stoves and fireplaces.

7.1.4 Objective: Minimize noise near places people live.

Policies:

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7.1.4.1 Encourage use of rubberized asphalt pavement on heavily-traveled roads near residential developments.

7.1.4.2 Support efforts to minimize railroad noise.

7.1.5 Objective: Protect dark skies in Pinal County.

Policies:

7.1.5.1 Assess the effectiveness and impact of existing outdoor lighting regulations

7.1.5.2 Employ outdoor lighting regulations that permit the reasonable use of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambiance of the night sky.

7.1.5.3 Encourage a collaborative working relationship with neighboring counties and Native American communities to protect dark skies in Pinal County and the surrounding region.

7.1.6 Objective: Improve sustainability of solid waste management in Pinal County.

Policies:

7.1.6.1 Explore County-wide recycling and reuse programs.

7.1.6.2 Explore new and innovative technologies in solid waste management.

7.1.6.3 Promote practices to safely address and dispose of hazardous waste while minimizing its impact to the environment.

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7.1.7 Objective: Support efforts that increase public awareness of Pinal County's valuable natural environment.

Policies:

7.1.7.1 Support programs at higher education institutions that promote research and awareness of Pinal County's natural environment.

7.1.7.2 Encourage environmental programs that engage young people and students in preservation and conservation of the natural environment.

7.1.7.3 Support efforts to establish a network of distinctive interpretive signage, maps and informational displays at recreation and conservation areas.

7.1.7.4 Support eco-tourism efforts and venues such as the Boyce Thompson Arboretum and the Biosphere II.

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Water Resources

Introduction

The Water Resources element of the Comprehensive Plan includes an inventory of water supplies in Pinal County, which includes surface water, groundwater, CAP water, reusable effluent and precipitation. Since the previous Comprehensive Plan, there have been no new added water supplies with the exception of some increased reclaimed wastewater supplies.

This section includes estimates of potential future water demand associated with existing and projected development. Issues relevant to water use and available supplies for future growth in the County are also included as are sections describing practices for managing future water supplies with goals and policies relevant to water resources.

Pinal County encompasses six groundwater basins. Three of the major basins are designated as Active Management Areas (AMAs). The AMAs have specific water management objectives that are administered by the Arizona Department of Water Resources (ADWR). Distinguishing between AMAs and the non-AMA basins is important in that there are different regulatory schemes that affect the management of water resources, most specifically groundwater. Between the three AMAs, the regulatory framework of the Phoenix and Tucson AMAs are virtually identical, while the regulatory framework of the Pinal AMA is unique among the three. The Phoenix and Tucson AMAs, have water management goals of Safe Yield. Safe Yield means that groundwater withdrawals are not to exceed the amount of water that is naturally and artificially recharged by the year 2025. In the Pinal AMA, the management goal is "to allow development of non-irrigation uses and to preserve existing agricultural economies in the AMA for as long as

feasible, consistent with the necessity to preserve future water supplies for non-irrigation uses".

The Pinal AMA includes the largest overall spacial area in the County and includes the communities of Casa Grande, Coolidge, Florence, Eloy, and Maricopa, all of the Ak-Chin Indian Community, and parts of the Gila River Indian Community and Tohono O'odham Nation. The portion of the County that is included within the Phoenix AMA includes Apache Junction, Superior, and Queen Creek, and part of the Gila River Indian Community. The south-central part of the County is included in the Tucson AMA, while the eastern portion of the county includes three groundwater basins that are not part of an AMA. These basins are the Connelly Wash Basin, parts of Lower San Pedro Basin (including the communities of Kearny and Mammoth), as well as parts of the Dripping Spring Wash Basins.

Purpose The Growing Smarter Plus Act requires that Pinal County include a water resources section in its Comprehensive Plan. The Water Resources element inventories, currently available water supplies and an analysis of how future growth will be adequately served with these water supplies. Where growth projections appear to exceed current water supplies, the element attempts to address how future water supplies could be obtained to meet the projected growth and techniques that may extend the use of existing water supplies.

Water providers are primarily responsible for meeting regulatory requirements associated with municipal and private water company systems and therefore typically plan, manage, and develop their water resources to serve their customers/constituents. Independent industrial water users, and agricultural users and irrigation districts are primarily responsible for meeting their respective regulatory requirements. Almost all of these requirements are imposed by State Law and most are enforced by the ADWR.

The County does not hold an "ownership interest" or "right" to water resources or provide water supply delivery services. State statutes identify ADWR as the primary agency responsible for the management of Arizona's water resources. The primary role of the County is one of supporting or affirming policy, encouraging wise water use, providing education regarding the County's water supplies, and serving as an advocate to protect the County's water interests in the region.

Recently, however, new statutes do provide an opportunity for the County to impose limited restrictions on the development of new subdivisions located in the three basins located outside of the three AMAs. These new statutes, and the County's new ability, can provide a level of protection for new home buyers in these locations by requiring that the development of these areas demonstrate that there are adequate water supplies available to these proposed subdivisions.

Pinal County is currently in the midst of its "second generation" water supply issue that was initiated with the conception of the CAP in the 1940s. It took nearly 50 years for the CAP to mature and deliver water to central Arizona, including Pinal County. However, the demographics and economics of Arizona and Pinal County have evolved and are continuing to do so at a phenomenal rate. While desiring a link to its agricultural heritage, Pinal County is on the brink of being the central element of the Sun Corridor Megapolitan. The County is witnessing the birth of its "third generation" water supply issues.

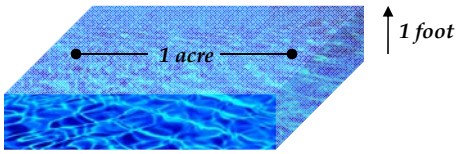
The water resources challenges facing Pinal County are linked to the rest of Arizona. There are no local fixes – Pinal County has reached the point where future planning is going to require importation of water. The current supplies located in local aquifers still are not reliably quantified, however, it is obvious that the groundwater supplies cannot continue to be indefinitely mined.

While there are tremendous amounts of groundwater located at significant depths in portions of the County, much of the water is poor quality and not economically or environmentally feasible to be used.

Relationship to Pinal County's Vision The Vision assumes that Pinal County will grow and water is the basic element that will allow this to occur. The question on most people's minds is twofold: is there enough water to satisfy the long-term needs of the current population and; is there enough water to allow for continued growth? The answer to the first part of the question is yes. There is adequate water to serve the current population. The answer to the second part is more complicated. Depending on the amount of growth, at some point new resources will be needed that are not currently available in the County. This means new sources will need to be sought and the infrastructure to move the water to the area will need to be developed. This will be costly. If prospective developers choose to make the financial commitment to bring water to the area to serve their projects, the infrastructure will be developed and the people and water will come. If the costs to bring these new sources are greater than the market will bear, growth will not occur.

The population projections for Pinal County indicate that a population at buildout could reach 6 million people. This represents between 840,000 to 1,700,000 annual acre-feet of new water demand. For comparison, the CAP Canal has a capacity of approximately 1,500,000 acre-feet per year. In other words, a project the scope of the CAP will be needed just to satisfy the growth demands in Pinal County, not to mention additional growth that will occur throughout the Sun Corridor Megapolitan. Arizona as a whole must find new sources of water to be able to continue to grow. The key to Pinal County's future is to be certain that it has a significant voice in the development of Arizona's next new water supplies.

An **acre foot** (ac/ft) is equivalent to the volume of water required to cover 1 acre to a depth of 1 foot.



There are a number of different estimates as to how much water is available to Pinal County, but there is not one definitive reference to obtain a quantification of that water. Studies currently are focused on specific subdivisions or water provider service areas, however, the ADWR is refining its groundwater model that will impact the parts of the County within the three AMAs.

Water supply estimates are further complicated by the introduction of the Central Arizona Groundwater Replenishment District (CAGRD) whose role is to replace the amount of groundwater pumped from the Phoenix, Pinal, and Tucson AMAs, thereby extending the supply of groundwater. And lastly, the role of reclaimed water for direct use on landscaping and for underground storage and recovery is just emerging as a major water resources management component in Pinal County.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

7.2 Goal: To protect the long-term water supply for Pinal County

7.2.1 Objective: Protect future homebuyers in new subdivisions located in areas located outside an AMA.

Under state law, new subdivisions in areas outside of AMAs must either prove that an adequate water supply exists to satisfy the needs of the development for 100 years, or simply publish that there is no demonstration that an adequate supply of water exists. While this may be adequate notice for a first time home buyer, there are concerns as to whether a subsequent buyer of the property will have appropriate notice of a lack of an adequate water supply.

Policy:
7.2.1.1 As provided under specific provisions of Title 11 of the Arizona Revised Statutes (A.R.S. § 11-806.01.F), the Pinal County Board of Supervisors shall, by the end of 2012, consider adoption of a provision (requiring a unanimous vote), that requires a new subdivision, located outside an AMA, to have an adequate water supply as defined by A.R.S. § 45-108.I in order for the subdivision final plat to be approved by the County. This policy was endorsed by the Water Element Citizen Task Force.

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7.2.2 Objective: Encourage the maximum conservation of water resources currently available within Pinal County.

The County can encourage the conservation and efficient use of water supplies. In addition, the County government can play a significant role in encouraging the reuse and underground storage of reclaimed wastewater.

Policies:

7.2.2.1 Consider the development of a federal, state, or municipal grant mechanism to support quality water conservation programs to be implemented within the County.

7.2.2.2 Consider requiring as a condition of its approval for new wastewater treatment facilities located within Pinal County that the applicant also be required to demonstrate and implement a program for the direct reuse by turf, industry, and agriculture and/or underground storage (either direct or indirect recharge) of reclaimed water within Pinal County. In the event of extraordinary climatological conditions, some relief from these measures may be considered on a temporary basis.

7.2.2.3 Encourage single family residences, multi-family residences, commercial and industrial development to utilize rainwater harvesting techniques.

7.2.3 Objective: Provide a focused venue for the development of unified water resources policy and development for the interests located within Pinal County.

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Pinal County encompasses six different basins having some unique water supply issues, however, in order to preserve the future of Pinal County and realize the Vision contained within this plan, a unified voice needs to be developed for participation in discussions regarding future water development projects and legislation that may affect available water resources for Pinal County at the local, state, and federal level.

Policy:
7.2.3.1 Consider the adoption of a resolution stating that there should be a County-wide organization with a goal to provide advocacy for Pinal County's water resources interests. Further, the County should be a strong contributor to all discussions concerning those water resources.

7.2.4 Objective: Explore and encourage legislative change to allow the provision of dedicated resources for evaluation and monitoring of groundwater conditions within Pinal County.

There have been many studies performed over portions of Pinal County to provide only a partial understanding of the hydrology within all six basins contained within Pinal County. Having a good baseline to work from enhances the opportunities for efficient and effective management of the groundwater supplies—as well as effective planning for drought—within these areas. The ADWR depends upon agency funding at the state level for its operations, and is frequently understaffed and underfunded to meet its obligations. Therefore, an increase in dedicated funding to secure additional dedicated staffing resources at ADWR for the

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purpose of undertaking a county-wide effort to analyze the available groundwater supplies is an alternative which should be explored.

Policy:
7.2.4.1 The County shall consider adopting a resolution to be transmitted to the Office of the Governor and both houses of the State Legislature to provide ADWR with funds to hire at least one hydrologist dedicated to providing analyses specifically focusing on the groundwater basins located within Pinal County.

7.2.5 Objective: In order for the County to have information about water supplies needed to satisfy future development, the County shall consider requiring zoning applicants to provide information about water demand and potential supplies for their projects. Implementing the following policies will give the Planning and Zoning Commission and the Board of Supervisor better information to use in their decision making, and will allow the county to develop a groundwater database. The following three policies were based on the recommendations of the Water Element Citizen Task Force

Policy:
7.2.5.1 Consider requiring that, with the filing of the zoning application, the applicant shall:

- *Identify the water service provider*
- *Provide an estimated range of water demand and include an explanation of the method used to obtain the estimate*
- *Provide information about water supply and source, including renewable and non-groundwater supplies*

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Policy:
7.2.5.2 If the water supply is groundwater, consider requiring that the zoning applicant provide the following information that is publicly available from the Arizona Department of Water Resources (ADWR) and/or Arizona Geological Survey, or otherwise available to the land owner:

- *Depth to bedrock*
- *Depth to groundwater*
- *Known fissures or land subsidence in the area*
- *Known wells in the area, available information on status, water levels, etc*
- *Summary of data-gathering efforts and sources of information*

Policy 7.2.5.3 Consider adding the following language to zoning cases if the County requires zoning applicants to provide water information at time zoning: approval of his zoning case is not an approval of water adequacy or water quality. This zoning is being granted in general support of the Comprehensive Plan's goals and objectives, but the applicant's ability to develop this property rest upon a demonstration to ADWR that there is sufficient water to serve the proposed development at the time of final platting.

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Energy

Introduction

Pinal County has a tremendous opportunity to be a leader in sustainability through prudent energy management. Unlike many areas of the country where the majority of the built environment is decades old, by 2020, a vast majority of Pinal County's built environment will have been constructed after the Millennium. Using energy efficient materials and planning techniques is much easier and cost effective for new construction than trying to retrofit older structures.

The planning and siting of infrastructure is much better done now than after development has occurred. For these reasons and others, it is the right time and place for a comprehensive energy approach to be created and implemented.

Purpose The Pinal County Energy element is an important component of the Plan. By developing a comprehensive energy strategy now, the County can be prepared to shape more sustainable growth.

Relationship to Pinal County's Vision Several components of the Pinal County Vision are directly impacted by energy.

> *Environmental Stewardship* How energy is generated and distributed in the County and the success level of conservation efforts will directly impact the regional environment. Air quality, water usage, and protection of sensitive areas and viewsheds (siting facilities to minimize impact on key visual resources) will need to be addressed.

Economic Sustainability Without ample and reliable energy, Pinal County will not be competitive in attracting business and industry which will bring new jobs. In addition, energy costs have a direct impact on the cost of living and doing business.

Open Spaces and Places Generation and transmission facilities have to be located somewhere. There is a tendency of the public to not want facilities close to population centers. However, the County's open spaces are also cherished. How and where facilities are sited will need to be carefully planned.

Strategic Areas

The Energy element contains three strategic areas. The first two, Conservation and Renewable Energy Sources, satisfy the state of Arizona's Growing Smarter requirements that state an Energy element should include:

- A component that identifies policies that encourage and provide incentives for efficient use of energy.
- An assessment that identifies policies and practices that provide for greater uses of renewable energy sources.

The third strategic area addresses Energy Generation and Transmission. Conservation and the development of renewable energy sources will be effective in ensuring that the County's energy future moves toward sustainability but anticipated growth will certainly require an exponential growth in the generation and distribution of energy for the coming decades.

It should be noted that the Arizona Corporation Commission (ACC) is responsible for final decisions about facility siting. However, Pinal

County needs to be active in providing input to ensure compatibility with the County's Vision and goals.

The focus of the Generation and Distribution Strategic Area of the Energy element is to:

- Illustrate the potential needs for generation and transmission infrastructure as the County grows.
- Inform residents and stakeholders of the present plans to locate future facilities throughout the County and the fact that everyone will need to share the burden of having safe, reliable, and clean energy throughout the County.
- Outline goals and policies to ensure that the County, municipal governments, and energy providers maintain a cooperative working relationship to facilitate appropriate locations for facilities while protecting Pinal County's physical environment and natural resources.

Conservation

Pinal County will work with residents, other agencies, and the business community to expand energy conservation efforts. The County can have the most impact on conservation efforts through influencing construction methods and materials, site planning and community design, and education.

The importance of energy conservation cannot be overstated. It is not just the right thing to do, it has tremendous environmental, natural resource, and economic implications. To illustrate the sweeping impacts of the benefits of electrical energy conservation, an actual case study can be analyzed.

The recently completed *Central Arizona Transmission System 2016 Transmission Study* estimates a need for 10,000 more megawatts of

power to serve Pinal County. To put this in perspective, the Hoover Dam has a maximum capacity of 2,080 megawatts.

A natural gas fired plant that will generate 575 megawatts of electricity is proposed in Coolidge at a cost of $500 million. Based on the 10,000 megawatt need, 18 new power plants of this type would be needed to generate the estimated additional electricity needs. A decrease in demand through conservation efforts of 11 percent would eliminate the need for two of these plants at a savings of $1 billion to ratepayers. In addition, the fuel and water saved in not operating those two facilities would have significant positive environmental and natural resource implications. Finally, less land would be required for generation and fewer transmission corridors could be a result. A conservation level of 11% is an attainable goal.

As energy prices continue to rise, electricity, natural gas, and transportation costs take a larger piece of household and business budgets. The economic viability of energy efficient construction will increase due to this as will the need to find alternative transportation modes and a reduction in travel needs.

Renewable Energy Sources

Pinal County will provide support for the development and location of renewable sources to meet current and future needs and to lessen the regions dependence on non-renewable energy sources. These might be stand alone facilities or co-located with other energy providers.

The expansion of renewable energy opportunities should be supported by the County through its land use planning and permitting processes. One very exciting viable renewable energy source in Arizona is solar. Historically, the economics of solar power

have been for smaller, individual property generation units and this solution should continue to be encouraged by the County.

Advances have now made it possible for entire households or buildings to significantly reduce their traditional energy dependence and at times may be able to generate enough power to make the meter run backwards. Unfortunately, the majority of homeowners and businesses do not have the financial resources to install such infrastructure. Federal and state grants have provided support but there is still a significant cost for installation. As energy costs continue to rise and technological advancements occur, this option will become more feasible and attractive to individual property owners. Pinal County must be ready for this. Through its regulatory and taxation policies, the County can provide additional support.

There are major changes on the near horizon regarding large scale solar energy generation. There are two major reasons for this trend: technology has started to make large scale generation more financially feasible and government/regulatory agencies are requiring energy producers to diversify their energy portfolios and have set targets for renewable energy sources.

A planned solar power plant near Gila Bend will serve approximately 75,000 homes upon completion. While this plant will be a breakthrough for Arizona, the energy generated from it will be much more costly than current sources and will be subsidized by ratepayers. However, as non-renewable energy sources continue to become more expensive and technology improves, the gap between traditional and solar power should begin to close. Another challenge to large scale solar generation is space. The planned Gila Bend facility will require up to three square miles of land for its solar fields and power plant.

Pinal County residents have also expressed a strong desire for expanded post-secondary education and training opportunities. The emerging renewable energy market could provide the catalyst for college, university and technical training programs for the design, installation, and maintenance of renewable energy equipment and infrastructure.

Energy Generation and Transmission

Pinal County is served by several energy providers. Arizona Public Service, Salt River Project, Southwest Gas, and numerous Electrical and Irrigation and Drainage Districts all provide service in the County and several more entities have facilities such as the Western Area Power Authority, Tucson Electric Power, and the Southwest Transmission Cooperative.

Pinal County will work with these energy providers to facilitate the provision of sufficient energy for residents and businesses and to encourage development of new facilities within the parameters of the seven components of the Comprehensive Plan Vision for the Future.

According to the *CATS HV 2016 Transmission Study*, in 2016, annual electric power generation in Arizona is projected to be 30,997 megawatts and electricity used 24,819 megawatts. This means that overall, Arizona is anticipated to be a net energy exporter. However, this will not be the case throughout the year. During the summer months, Arizona providers must purchase additional power from other states to meet higher demands.

Based on the 2006 state population of 6.3 million and using a straight line projection, each 100,000 people in Arizona will require 394 megawatts of power. The following table (7-1) estimates the electrical energy needs of Pinal County at various

population levels. This information is for illustrative purposes only as these needs change significantly by season.

7-1: Pinal County Electricity Need

Population Growth	Additional Electricity Required
100,000	394 megawatts
500,000	1,970 megawatts
1,000,000	3,940 megawatts
2,000,000	7,880 megawatts
3,000,000	11,820 megawatts

Source: CATS HV 2016 Transmission Study

Even with effective conservation and moving toward renewable sources, it is evident that additional traditional generation facilities will be needed (see table 7-1). In fact, several new generating facilities have recently been identified for development on the short term horizon. Citizens, governmental entities, and the energy providers will have to work closely together to ensure appropriate locations for new facilities.

Significant planning has been done to project future electrical power needs for the region. The delivery of new energy sources to homes and businesses will also require the delivery system. Additional generation and transmission project that have been identified in past, ongoing and future studies will be subject to review and approval by the ACC.

In summary, with Pinal County not being a direct service provider, its role in the energy future of the region will consist of providing education and information to the public, maintaining codes and policies to encourage conservation of energy, supporting the development of renewable sources, and coordinating with the

energy industry to ensure appropriate development of adequate facilities.

Neither Pinal County's tax base nor legislative authority allow the County to play a large financial role in the energy future through incentives, tax credits, or other financing programs. However, the County can play a significant role in serving as the central point to assemble a diverse group of communities and regional stakeholders and partners to secure energy for future use.

The County can also be a leader in identifying new programs for funding sources to expand development of renewable energy sources.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
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Conservation

7.3 Goal: Improve the energy efficiency of Pinal County government.

7.3.1 Objective: Set an example by improving energy efficiency and use of renewable sources in County facilities, vehicle fleets, and equipment.

Policies:

7.3.1.1 Convert the vehicle fleet over time to alternative fuels.

7.3.1.2 Move toward compliance with green building benchmarks and programs for existing County buildings and facilities and require green building standards be developed in all new facility designs.

7.3.1.3 Locate solar energy generation equipment on County facilities which cost/benefit analyses proves advantageous.

7.3.1.4 Convert County facilities to low energy lighting and install energy efficient electrical equipment when economically feasible.

7.4 Goal: Improve the energy efficiency of structures in Pinal County.

7.4.1 Objective: Improve the energy efficiency of new construction and the existing building stock through building codes and processes.

Policies:

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7.4.1.1 Maintain the most up to date International Building Codes (IBC) and International Energy Conservation Code (IECC) and provide training for staff to implement.

7.4.1.2 Encourage the expansion of energy efficient building practices.

7.4.1.3 Work with municipalities and Native American communities to standardize energy efficiency requirements and codes throughout the County.

7.4.1.4 Support refurbishing and remodeling projects to include energy efficiency components through expedited permitting and assistance.

7.4.1.5 Encourage all residential, commercial and industrial construction to meet "ENERGY STAR" as a minimum efficiency standard.

ENERGY STAR is a joint program of the EPA and the U.S. Department of Energy helping to save Americans money and protect the environment through energy efficient products and practices.

7.4.2 Objective: Reduce energy demand through community design.

Policies:

7.4.2.1 Encourage developments that use energy smart site design (e.g., solar orientation, cluster development).

7.4.2.2 Encourage Sonoran-friendly landscaping in developments to provide shade.

7.4.2.3 Implement the Activity Center philosophy to bring employment, commercial, and educational activities closer to residents and increase multimodal transportation options including transit, bicycle, and pedestrian modes.

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7.5 Goal: Improve overall communication and collaboration regarding energy issues.

7.5.1 Objective: Provide energy conservation education and awareness in County communications.

Policies:

7.5.1.1 Provide energy conservation information on the County Web site with links to energy providers and conservation and consumer groups.

7.5.1.2 Work with energy providers to include energy conservation promotional materials to building owners at the issuance of Certificates of Occupancy.

7.5.2 Objective: Maintain cooperative working relationships.

Policies:

7.5.2.1 Hold periodic coordination meetings with energy providers to keep informed of the latest conservation programs offered.

7.5.2.2 The County should continue to participate in regional energy planning forums, such as the CATS Group, and work with the County's municipalities, Native American communities and energy providers to create a County-wide, long range energy strategy.

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Renewable Sources

7.6 Goal: Expand renewable energy in Pinal County.

7.6.1 Objective: Support small scale renewable energy projects

Policies:

7.6.1.1 Support statewide policy that provides property tax credits for renewable energy facilities on individual homes and businesses from net assessed valuation calculations.

7.6.1.2 Assess current codes so they are supportive in permitting small scale renewable energy projects. Explore ways to reduce barriers caused by homeowner's association restrictions.

7.6.1.3 Work with developers and energy providers to design neighborhoods with optimum solar orientation.

7.6.1.4 Support state and federal incentive programs for the development of renewable energy infrastructure for individuals and businesses.

7.6.1.5 Develop/amend ordinances to protect solar access through sensitive building orientation and for property owners, builders and developers wishing to install solar energy systems.

7.6.1.6 Support the transmission of renewable energy from sources within and outside of Pinal County.

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7.6.2 Objective: Support the growth of the renewable energy in Pinal County.

Policies:

7.6.2.1 Identify through specific area planning potential locations for renewable energy projects.

7.6.2.2 Support the attraction of renewable energy providers through the County's economic development strategy.

7.6.2.3 Work with economic development proponents to develop education and training programs for renewable energy employment opportunities.

Generation and Transmission

7.7 Goal: Support the provision of adequate energy for the future while protecting the natural environment and resources.

7.7.1 Objective: Identify and protect potential sites and corridors for new energy generation and transmission facilities.

Policies:

7.7.1.1 Work with energy providers through the specific area planning process to identify appropriate locations and buffering of future projects.

7.7.1.2 Work with energy providers to co-locate where possible facilities such as transmission lines, pipelines, substations, and terminals.

7.7.1.3 Encourage the adoption of designated generation and transmission and facility sites and corridors in future updates to County and municipal planning documents to protect against incompatible development and to maximize increased capacity.

7.7.2 Objective: Protect water and environmental resources.

Policies:

7.7.2.1 Monitor the evaluation process by other agencies of all proposals for new generating facilities to determine long-term impacts on water resources.

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7.7.2.2 Support innovative designs for new generating facilities that minimize water use.

7.7.2.3 Explore innovative water re-use strategies.

7.7.2.4 Discourage facilities from locating in designated environmentally sensitive areas and encourage facilities to be in context with viewsheds and waterways.

7.7.3 Objective: Provide information to citizens and the development community regarding future energy facilities.

Policies:
7.7.3.1 Keep up to date information about locations of existing and potential new generation and transmission facilities on the County Web site.

7.7.3.2 Review development proposals along with short and long range plans of energy providers to ensure an understanding of where facilities may be and to keep prospective residents and businesses informed.

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7.7.4 Objective: Maintain cooperative working relationships with energy providers.

Policies:
7.7.4.1 Hold a biannual "energy summit" bringing together providers, landowners and key county staff and leadership to discuss future plans and update one another on current planning and trends.

7.7.4.2 Work closely with energy providers during the evaluation of development plans to access cumulative, County-wide impacts on energy availability and reliability.

7.7.4.3 Coordinate with energy providers in the implementation of the Growth Areas element to ensure energy infrastructure is adequate to support growth and infrastructure development.

7.7.4.4 Encourage involvement of energy providers in area planning processes.

7.7.4.5 Continue to participate in regional energy planning forums such as the CATS Group

Urban Heat Island

7.8 Goal: Support strategies to reduce Urban Heat Islands and their environmental effects.

7.8.1 Objective: Identify key Urban Heat Island mitigation techniques and reduce Urban Heat Island effect through community planning and design

7.8.1.1 Work with municipalities to avoid the development of heat islands through land use planning, open space preservation between developments, site design, and building materials and colors.

7.8.1.2 Encourage underground, understructure and/or multilevel parking structures

7.8.1.3 Encourage the use of "cool pavement" materials, "cool roofs" and "green roofs"

Urban Heat Islands are built up areas that are hotter than nearby rural areas. Elevated heat island temperatures can cause environmental impacts. (EPA)

Cool Pavements include a range of technologies aimed at reducing urban heat island effect.

Cool Roofs is a term that describes roofing materials with a high solar reflectance.

Green Roofs is a term describing a vegetative layer grown on a rooftop that can be installed on a wide range of buildings

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Chapter 8: Healthy, Happy Residents

Housing

Introduction

The relationship between a sustainable economy and housing availability is essential. Maintaining a robust jobs to population ratio allows people to live in close proximity to where they work as described in the Economic Development section of the Comprehensive Plan. When imbalances exist, people will either move to areas with more employment opportunities or employers will move to areas with more workforce opportunities. The Pinal County Comprehensive Plan identifies employment centers that could reduce long and expensive daily trips that workers face today. Mixed Use Activity Centers that can attract more employment opportunities to the region will support a full range of residential lifestyles.

Historically, housing prices have been low enough to attract people to Pinal County. Housing affordability allowed people to purchase a home, many for the first-time and as Pinal County attracts new employment opportunities, housing and services will follow. Housing that is both attractive and affordable to a variety of people at diverse income levels is necessary to retain and attract quality employment opportunities and to achieve a healthy, balanced region.

According to the *Pinal County Housing Needs Assessment* (May 2008), as Pinal County urbanizes, the economic well-being, as well as the health of the housing market in Pinal County are directly related to the economic well-being of the metropolitan areas. Most areas in Pinal County do not have sufficient employment opportunities to support the current population. More than 40% of the employed population commutes out of the County and a

significant challenge moving forward is to expand local employment options and provide appropriate infrastructure and community services.

The Pinal County Comprehensive Plan Housing element is intended to provide guidance to encourage a mix of quality housing in the County, its municipalities, and Native American communities. The County influences the region's housing market through planning, review, and approval of housing developments, code adherence and enforcement, and coordination with other agencies and entities that are directly involved in addressing housing issues.

The Pinal County Housing Department focuses on development of affordable housing opportunities for low income, disadvantaged, or displaced individuals and families. The Pinal County Housing Department completed the *Housing Needs Assessment* to analyze comprehensive County-wide housing data and demographics and to identify a strategic implementation plan focused on affordable housing strategies. The *Housing Needs Assessment* focuses on six primary goals:

1. Increase capacity for and coordination of affordable housing programs and projects.
2. Increase the availability of and access to a variety of funding resources.
3. Increase the dedication of land for future affordable housing production.
4. Incorporate affordable housing and housing affordability into planning and zoning processes and decisions.
5. Encourage private investment in affordable housing.
6. Develop and deliver community-based programs.

Purpose One of the reasons for Pinal County's explosive growth has been the relative affordability of the housing. Maintaining

affordability and availability of housing for a wide range of income levels is critical to the County's economic sustainability as well as the quality of life. The Comprehensive Plan Housing element compliments the *Housing Needs Assessment* by focusing on encouraging a mix of housing types and positioning Pinal County to address changing markets, desires, and trends.

Relationship to Pinal County's Vision Housing in Pinal County impacts several important Vision components. Housing affordability, or lack thereof, will impact *Economic Sustainability* and also the ability to attract new employers. Conversely, when businesses are looking to relocate, the range of housing types, styles, and prices is important but so is the availability of higher-end, executive level housing.

Another Vision component *Sense of Community* correlates directly with how and where residents live. Ensuring that neighborhoods are well-designed and safe directly impacts the housing market. Lastly, *Mobility and Connectivity* is important for connecting neighborhoods to commercial, services, and employment. Well-designed housing developments located in close proximity to multimodal transportation corridors will be more attractive to residents as transportation costs continue to rise and become a higher percentage of living costs.

Strategic Areas

Housing Locations

The Comprehensive Plan identifies seven residential categories that will promote a mix of housing developments and types ranging from large lot, single family homes to apartments, condominiums, and townhomes. These designations are:

Ranchette Residential (0-0.3 du/ac)
Rural Residential (0-.5 du/ac)
Very Low Density Rural Residential (0-1 du/ac)
Low Density Residential (0-2 du/ac)
Moderate Low Density Residential (1-3.5 du/ac)
Medium Density Residential (3.5-8 du/ac)
High Density Residential (8-24 du/ac)

In addition to these residentially-focused land uses, the Plan identifies three other designations where residential development will be encouraged. Agricultural uses support a rural residential lifestyle and are located throughout Pinal County. The Plan also identifies "Mixed Use Activity Centers" that contain a residential component intended to provide a live, work, and play environment while the "Mixed Use – Residential Focus" designation is intended to provide for significant residential development supported by commercial and employment uses.

Changing Markets

Many housing industry experts are predicting that smaller homes on smaller lots closer to amenities and employment will be desired. In fact, some experts assert that there is enough single family, large lot inventory already in place to satisfy all future demand for this type of product. According to the American Association of Retired

Persons (AARP), 71% of older households want to live in walking distance of public transportation.

The next generation of workers is also looking for something different than their parents and grandparents. They are marrying and starting families later and are looking for places to live near activities and transportation options in a more urban setting. It is estimated that 57% of the "Echo Boom" generation (ages 24-34) prefer small lot housing. Approximately 53% of them consider an easy walk to stores an important determinant in making housing and neighborhood choices. The success and popularity of this type of housing development is already being realized in urban areas across the country including Metropolitan Phoenix.

Goals, Objectives and Policies

In order to make it easier for property owners to use the Goals, Objectives and Policies in the Plan and then incorporate them into their development proposals or amendments, the Policies have been placed into two separate categories. The two categories are:

- Public Responsibilities
- Private and Public Shared Responsibilities

Private development applicants should be aware of Public and Private Shared Responsibilities throughout the development process and should focus their Comprehensive Plan applications as specified in the implementation section of the Comprehensive Plan, or other relevant documents that set criteria for other applications.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

8.1 Goal: Pinal County has a mix of housing types and is well positioned to respond to emerging housing industry trends and markets.

8.1.1 Objective: Support a mix of quality housing opportunities to support economic development efforts.

Policies:

8.1.1.1 Identify appropriate areas for a range of housing in conjunction with the development of Activity Centers.

8.1.1.2 Develop and maintain an inventory of existing housing product (by type, size, and value).

8.1.1.3 Support changes to state law to give counties and municipalities greater authority over lot splits.

8.1.1.4 Encourage the development of legal subdivisions.

Density Bonus or Incentive is allowing higher density residential as a trade-off for including in a project a desired need such as open space or affordable housing unit.

8.1.2 Objective: Encourage and monitor the availability of affordable housing.

Policies:

8.1.2.1 Collaborate with municipalities and Native American communities County-wide to promote affordable housing.

8.1.2.2 Evaluate density bonuses as a method of constructing more affordable units within new subdivisions.

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8.1.2.3 Explore the use of density incentives or bonuses as mechanisms to increase housing affordability and integrate affordable housing into neighborhoods.

8.1.2.4 Support the development of viable opportunities for affordable housing and home ownership, through alternative housing products such as manufactured, modular, factory-built or accessory rental units.

8.1.2.5 Promote conservation of energy, water, and other natural resources as a cost-saving measure in existing residential developments to increase overall affordability.

8.1.3 Objective: Support a compact residential development pattern in appropriate locations.

Policies:

8.1.3.1 Review zoning and other regulations to allow the opportunity for more urban-type housing developments.

8.1.3.2 Review zoning and other regulations to support compact or cluster housing as well as other incentive mechanisms to preserve open space within housing developments.

8.1.3.3 Review the County's development fee structure to determine if it is equitable and applicable to new housing types and developments.

8.1.3.4 Encourage a mix of residential development within the economic Activity Centers.

8.1.3.5 Create new development codes and ordinances to encourage urban style, higher density residential development in areas of existing and future activity.

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8.1.4 Objective: Encourage the development of housing units suitable for people with special needs such as, but not limited to, the elderly and disabled.

Policies:
8.1.4.1 Continue to monitor housing development for the Americans with Disabilities Act (ADA) and Fair Housing Law Compliance through the County's development review process.

Infill residential development encourages housing development within established residential areas.

8.1.4.2 Explore programs to assist with modifications or adaptations to meet special needs.

8.1.4.3 Continue to work with other jurisdictions (local, state and federal) as well as the private and non-profit sector to leverage resources to address special needs County-wide.

Transit oriented development encourages a higher density residential and mixed use development pattern that supports mass transit.

8.2 Goal: Maximize residential development opportunities where existing infrastructure and services are provided or planned.

8.2.1 Objective: Encourage infill residential development in appropriate locations.

Policies:
8.2.1.1 Allow density incentives/bonuses and flexible development requirements for transit-oriented developments.

8.2.1.2 Encourage affordable housing to be integrated into existing development and neighborhoods to avoid economic segregation.

8.2.1.3 Encourage very low density residential development in areas without planned water, utilities, and fire protection.

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8.2.1.4 Maintain the historic character of existing neighborhoods and buildings through development guidelines that promote the preservation and rehabilitation of existing structures

8.2.2 Objective: Promote quality residential development in well-designed neighborhoods.

Policies:

8.2.2.1 Establish design criteria for manufactured and modular housing to promote placement in a wider array of zoning districts.

8.2.2.2 Develop new codes and revise existing ordinances to encourage housing that will accommodate the needs of seniors and disabled individuals.

8.2.2.3 Encourage new housing units that are designed to respect the mass, scale, siting, and form of other buildings in a neighborhood or area.

8.2.2.4 Use buffering, screening, and design standards to mitigate impacts of higher-density residential development on neighboring lower-density residential development.

8.2.2.5 Examine density bonuses/incentives and reduced parking requirements for senior housing based on the limited impact of such housing on infrastructure.

8.2.2.6 Enforce codes and ordinances to ensure maintenance of neighborhood integrity as the housing stock ages.

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8.2.2.7 Encourage and support property owners in the development of subdivisions in accordance with planning and zoning regulations.

8.2.2.8 Encourage design of subdivisions that protect environmentally sensitive areas or unique property characteristics.

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Cost of Development

Introduction

Only a fraction of the development that is anticipated to occur in Pinal County has currently taken place. Ensuring that the growth to come is not a burden on those that have already chosen Pinal County as the location of their home or business is of crucial importance.

Purpose The Cost of Development element seeks to outline how new growth will pay its associated fair share of costs and is mandated by the State of Arizona's Growing Smarter legislation to include:

1. "A component that identifies various mechanisms that are allowed by law and that can be used to fund and finance additional public services necessary to serve the development, including bonding, special taxing districts, development fees, in lieu fees and facility construction, dedications, and privatization." A.R.S.§11-821.D.4(a).

2. "A component that identifies polices to ensure that any mechanisms that are adopted by the county under this element result in a beneficial use to the development, bear a reasonable relationship to the burden imposed on the county to provide additional necessary public facilities to the development and otherwise imposed according to law." A.R.S.§11-821.D.4(b).

When a majority of the state legislation for counties was developed, it would have been hard to imagine the population growth that would eventually occur. Over 140,000 people live in unincorporated areas of Pinal County and the County's most recent budget is $475 million (fiscal year 2007-2008), yet the tools at the

disposal of counties to address this growth have remained relatively unchanged. The recent ability to exact Development Impact Fees has been a step forward. Pinal County should take a leadership role in identifying and promoting new or revised financial tools at the state level since the County is at the epicenter of the Sun Corridor Megapolitan Region.

Relationship to Pinal County's Future The Pinal County Vision articulated by residents clearly stresses *Economic Sustainability, Sense of Community, Environmental Stewardship, Mobility and Connectivity, and Healthy, Happy Residents* as key components.

The Cost of Development element is critical for addressing these components as:

- The County will be most economically successful if new development is required to pay for its share of cumulative impacts.
- New residents and communities will be welcomed if all contribute to the County's financial sustainability.
- Adequate funding for basic infrastructure is critical to maintaining a sound natural environment.
- Identifying funding sources to develop transportation infrastructure to accommodate new development as well as upgrading an already strained system will be a challenge.
- Recreation facilities, public health services, and public safety – and reliable funding for them – are high priorities in ensuring Healthy, Happy Residents.

Strategic Areas

Portfolio of Services

Pinal County provides a portfolio of services that includes:

- General County Government Administration
- Law Enforcement (Sheriff's Department/Courts/Jails/Probation)
- Flood Control
- Elections
- Air Quality/Environmental Health
- Animal Control
- Medical Examiner
- Planning, Zoning, and Development Services
- Health and Human Services
- Public Works and Transportation
- Housing
- Parks and Recreation

Each of these services is impacted by population growth and development in different ways. Some will require expanded services, facilities, and staffing to meet growing needs while others will incur maintenance impacts caused by increased usage, and in many cases both additional costs will be incurred. In any case, the financial challenges facing the County government and its ability to do business increase as growth occurs – especially since several key revenue streams (such as sales tax and State Shared Revenues) tend to lag behind the actual population growth, sometimes by several years.

With **State Shared Revenues**, Arizona shares a portion of the revenue it collects with local governments.

Cost of Public Services

What are the Costs of Development? It depends. Mathematical calculations, such as a set number of police officers per 1,000 residents, provide a fairly clear picture of need and associated costs. But many other growth impacts are less clear.

For example: *Does it cost more or the same to provide services to 20 new homes within or adjacent to an existing subdivision or 20 new homes in a new subdivision 15 miles from a developed area?* Just based on public safety alone (which comprises 42% of the total County budget) it would appear the 20 homes in the remote location may have a higher "cost of development." However, the County cannot develop fiscal policy customized for each development proposal.

Another area that is often overlooked when determining impacts of new growth is the development of the governmental complex. While most services and facilities can be budgeted incrementally project by project, the development of the governmental complex (both in the County seat and in satellite facilities) is often overlooked. Major expansion or creation of new facilities may be the result of a cumulative impact of hundreds of thousands of new residents and cannot be analyzed on a project by project basis.

The County must have solid facilities plans in place that contain population and service level triggers and anticipated cost of new facilities. This will assist in long range financial planning and in the update and formulation of development fees and other revenue sources.

In order to make good financial decisions when evaluating the cost of a given development, the following three factors should be considered:

One Time Costs: New Facilities Growth could trigger the need to develop expensive new facilities such as roads, buildings, and parks. These would be one time costs that can be planned for and now with development fees these costs may be augmented through the collection of fees as growth occurs. The County may only charge development fees for water, sewer, streets, parks and public facilities under A.R.S.§11-1102(A).

The County currently requires new developments to create the basic infrastructure and in some cases maintain it. However, by approving the development, the County agrees to take on the responsibility of service provision equal to what is provided in the remainder of the County.

Based on level of service standards, the need and timing of these expenditures can be anticipated and financing mechanisms implemented accordingly. However, most of these facilities will have significant on-going maintenance and operating costs that cannot be covered by the one time fees. Additional taxes and fees collected as a result of new development may or may not cover the long term costs.

Maintenance and Operating Costs of New Facilities Upkeep and operation of new facilities required by growth will need to be financed by increased revenue streams. The County's revenue generating policies need to identify from where these new funds should come.

Expanded Existing Services Growth will require the expansion of existing services including more police officers and equipment, expanded maintenance staffing, more buildings, vehicles, and equipment, and additional administrative staffing. Also, the locations of where these service expansions will need to occur have significant financial impacts. The real question is will the increase in

revenues (e.g., property tax, sales tax) from the new development be enough to pay for the expanded services?

The County must also attempt to anticipate new services that may be desired. As people move from cities and towns or other parts of the country where counties may provide more services, Pinal County could be confronted with the public's desire to add to its service portfolio.

Funding Options Table 8-1 outlines the most common funding options available for county governments within Arizona. Pinal County should continuously examine additional funding sources and the development of unique governmental, non-governmental, and public/private partnerships in order to fund needed projects and services.

8-1: Funding Options

Option	Description	Pinal County's Position
General Transaction/Sales Tax	Taxes paid on retail sales activities within the county. Can be used for most types of expenditures.	Pinal County levies .5 percent (1/2 cent) on all retail purchases in the County. New commercial centers coming on line have doubled the sales tax revenues since FY05 to over $20 million in FY08.
Dedicated Transaction/Sales Tax	Taxes paid on retail sales activities within the county. Revenues are dedicated for a specific purpose.	Pinal County receives .5 percent (1/2 cent) on all retail purchases in the County. Funds received are dedicated to the development of the roadway network and shared with cities based on population. The County also levies a 1/10 of a cent sales tax to fund the County Public Health District.
Property Tax	Tax based on the assessed valuation of property within the County. Can be used for most types of expenditures.	Pinal County's collects property tax with the rate established annually by the Pinal County Board of Supervisors. This is Pinal County's largest general fund source.
Intergovernmental Transfers	Revenues received from state and federal sources. Some funds are not encumbered and others must be used for specific purposes.	Pinal County receives State Shared Revenues and Highway User Revenue Funds based on population. The amount of these funds has increased significantly as growth has occurred since 2000.
Charges for Services	Charged for the actual cost of providing services. May fund operating and capital expenditures	Pinal County charges fees for services such as Justice Court, Constable fees, Planning, Assessor, Recorder, and Health Inspectors.
Activity Related Taxes	Includes hotel occupancy taxes, taxes on rental cars, and other specific purposes.	Pinal County has not exercised this option. This funding mechanism often used to fund major infrastructure developments such as stadiums.
Development Fees	Fees imposed upon developers on a one-time basis to cover specific costs/impacts of the developments.	Pinal County approved Development Fees in January 2007 and Development Fees will be periodically reviewed.
General Obligation Bonds	Borrowing instruments that are backed by the full taxing authority of the county.	Pinal County currently uses bonds to fund major projects such as buildings. The County does not impose a Secondary Property Tax to pay off bonded indebtedness. Pinal County is limited in its debt capacity by the state of Arizona. Pinal County General Obligation debt may not exceed six percent of the value of the County's taxable property value. However, with voter approval, debt may be incurred up to 15 percent of the value of taxable property.
Revenue Bonds	Borrowing instruments that are backed and repaid by a current or future revenue source	The County uses current revenues to retire debt.
Special/ Improvement Districts	Specific areas that have a special financing mechanism (such as bonds to be repaid by local assessments) to fund infrastructure or services within the district	Pinal County currently uses this financing option to fund various projects.
Development Agreements	Agreements between the county government and property owner/developer that may require the installation of infrastructure or dedication of land as a condition of development	Pinal County has used as a tool to require developers to install infrastructure.
Partnerships	Financial, infrastructure development, and shared use agreements between public and/or private entities and the municipality	Options for partnership arrangement should be continuously explored.
Other Financing Methods	Consumer market type financing methods are available such as lease purchase agreements and traditional bank financing	The County currently uses this funding mechanism.
Dedication	Contribution of property by a landowner usually through some type of development agreement to provide locations for amenities such as roads, schools, or parks.	This option has been used in Pinal County.
Privatization	Provision of services by a private sector entity.	Pinal County has numerous private service providers that provide municipal type services such as water delivery and wastewater treatment.
Community Facilities Districts	Typically created to install basic infrastructure such as water and wastewater facilities, with the costs repaid by property owners through assessments collected by county or municipal governments.	Pinal County will consider this type of funding mechanism if a regional benefit can be established.

Source: Pinal County Comprehensive Plan, 2009

Pinal County's Development Fees Since Pinal County is such a diverse place with many different needs and issues, it was divided into seven Impact Fee Areas. Fees collected in these areas must be spent within that area except for three County-wide types of projects: Parks and Fairgrounds, Public Safety-Detention Center, and Communications. The balance of funding in each Impact Fee Area is parks, public safety, and streets.

Goals, Objectives and Policies

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Financial Equitability Existing residents and businesses should not be burdened with the financial impacts of those that follow. Policies to ensure growth pays its share also must be fair and equitable for

property owners and developers. The County has adopted Development Impact Fees as a step toward equitability.

8.3 Goal: Promote a philosophy that new growth pays for its share of financial impacts in an equitable manner.

8.3.1 Objective: Maintain clear policies and procedures to evaluate development proposals.

Policies:

8.3.1.1 Continue to monitor effectiveness and adequacy of Development Fees and make adjustments as necessary.

8.3.1.2 Maintain an annually updated Capital Improvements Plan to quantify already identified needs in light of new projects to be generated by development and how these new projects will be associated with the development fee structure.

8.3.1.3 Maintain a comprehensive index of level of service standards so that new facilities and/or expanded services can be predicted as part of the development review process.

8.3.1.4 Use the full cost of development (new facilities, operation and maintenance, and expanded service levels) to evaluate development proposals.

8.3.1.5 Use Development Fees to cover the incremental costs of new facilities and do not use to correct existing deficiencies.

8.3.1.6 Develop an easy to use worksheet that will provide a high level look at financial impacts of development proposals for use by the Planning and Zoning Commission and Board of Supervisors.

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8.3.1.7 Consider expansion of Development Fees to cover additional areas if applicable and allowed by state law. Every two years the Capital Improvement Plan is updated related to Development Fees.

8.3.1.8 Maintain a set of current infrastructure standards to provide for adequacy and consistency of facilities throughout the developed part of the County.

8.3.1.9 Maintain a current Facilities Master Plan that contains triggers and thresholds based on population growth.

Sound Financial Planning Sound financial planning will be the basis for determining equitable costs. Having up to date financial data and projections in place will facilitate the review and update of fee structures and fiscal policies. The County should also be monitoring the governmental financing world to identify and implement best practices being used. Innovative ways to provide and finance services should be identified and analyzed for applicability.

The County must also look for opportunities to coordinate and cooperate effectively with the private sector and other governmental entities. By working collaboratively with regional stakeholders, the County can leverage funding and promote quality development.

8.4 Goal: Maintain long-term financial sustainability for Pinal County.

8.4.1 Objective: Maintain a sound financial planning process to support equitable funding of facilities and services.

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Policies:

8.4.1.1 Continue to use the Capital Improvement Plan to quantify and program future capital and infrastructure needs.

8.4.1.2 Consider logistics (distance from current service areas, accessibility) when reviewing development proposals to evaluate actual costs of service provision.

8.4.1.3 Work with municipalities and other agencies to formulate creative financial solutions for development on the edges of jurisdictions.

8.4.1.4 Develop financial projections as part of the Specific Area Planning process and implementation of the Growth Area element.

8.4.1.5 Continue to invest in long-range planning to anticipate and quantify future funding needs.

8.4.1.6 Require adequate infrastructure be installed so that areas are attractive for annexation to minimize County islands and difficult service areas.

8.4.1.7 Conduct periodic service fee evaluations to determining fees are commensurate with the costs of providing services that the County provides.

8.4.1.8 Work with other counties at the state level to increase the available financial tools for counties to a commensurate level with municipalities.

8.4.1.9 Conduct a periodic review with peer governments of the County's tax and fee structure to determine and encourage economic development competitiveness.

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8.4.1.10 Identify and pursue public-private funding opportunities.

8.4.1.11 Consider the economic benefit to the County of the development proposal when evaluating actual costs of service provisions.

8.4.1.12 Encourage infill projects that will have a lower incremental cost to the County than growth in new, outlying areas.

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Chapter 9: Quality Educational Opportunities

Education

Introduction

Quality educational opportunities are critical to the long-term economic sustainability of Pinal County as well as enhancing the region's quality of life. During the Morrison Institute's study that resulted in the report called *The Future at Pinal* community leaders were interviewed about issues of importance. According to the Report, higher education is an area where Pinal has a start, but numerous gaps. The region, to their minds, will have to expand its capacity, offerings, and quality to meet the demands of employers and to be competitive with other regions. In fact, leaders (and numerous residents) expressed substantial concerns for the state of education at all levels. To attract quality employers and retain talented newcomers, the region must improve k-12 education, expand its community college system, increase options for training, and offer more higher education choices. Those interviewed also recognized that many already in Pinal County's education system, as well as current workers wanting better jobs, need additional family supports such as child care, flexible work schedules, transportation assistance, and access to health insurance to support more training and better jobs.

Purpose An Education element is not a traditional or a required Comprehensive Plan element according to state statutes. However, throughout the planning process education attainment and educational opportunities were mentioned consistently as an important desired asset for Pinal County.

Relationship to Pinal County Vision The vision component states:

> *Quality Educational Opportunities – Quality, community-based Pre k-12 programs that provide youth with a competitive edge along with a wide variety of post-secondary educational opportunities and technical or specialized workforce training are necessities. Pinal residents seek out lifelong opportunities that help to expand their minds and diversify their experiences.*

Goals, Objectives and Policies

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9.1 Goal: Quality educational opportunities for all.

9.1.1 Objective: Expand educational quality and opportunities at all levels.

Policies:

9.1.1.1 Identify potential sites for new schools in advance of needs.

9.1.1.2 Encourage coordination between the proposed development and the school district to ensure adequate facilities.

9.1.1.3 Support the consideration of transportation impacts when planning for school sites and facilities as part of master planned developments.

9.1.1.4 Continue to explore joint facilities and shared use of parkland, recreation and outdoor facilities, meeting rooms and classrooms, libraries, and other facilities.

9.1.1.5 Work to develop safe and convenient pedestrian, bicycle and transit access for students to existing and new schools.

9.1.1.6 Support the development and expansion of higher educational opportunities throughout the County.

9.1.1.7 Identify in specific plans potential locations for colleges, universities, and training facilities.

9.1.1.8 Work to improve pre k-12 education by partnering with districts.

9.1.1.9 Promote quality community based k-12 education.

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Chapter 10: Implementation

Implementation

Introduction

The Pinal County Comprehensive Plan is the policy document that guides decision-making about growth and development. For the Plan to stay relevant over time, it should be reviewed and updated periodically on an as-needed basis to respond to changes in economic, physical, environmental, social, or political conditions. According to A.R.S § 11-806, counties must update or readopt the comprehensive plan at least once every 10 years. Monitoring and evaluation will help maintain consistency with the Plan.

Purpose The Implementation Chapter is intended to outline how amendments to the Plan will occur. The following strategic areas or actions will be addressed to ensure that the Pinal County Comprehensive Plan remains current:

- *Adoption* of the new Comprehensive Plan by the Board of Supervisors following public hearings.
- *Monitoring the Plan* at least annually to determine needed updates and track implementation.
- *Plan Amendments* are considered upon careful review.
- *Periodic Communication* with the public, stakeholders, municipalities, agencies and landowners about the Comprehensive Plan's implementation of vision, goals, objectives and policies.
- *Zoning* and subdivision regulations are intended to implement the Comprehensive Plan policies.

Relationship to Pinal County Vision The test of any plan is its successful implementation. The citizens of Pinal County have

entrusted their vision to those responsible for implementation of the Pinal County Comprehensive Plan. All vision components are of equal importance and must be evaluated as the County considers Plan amendments and updates.

Strategic Areas

Adoption

The Comprehensive Plan is effective for up to 10 years from the date the plan is initially adopted, until it is readopted or until a new plan is adopted and becomes effective. Following is the process for adoption:

- Prior to the public hearing conducted by the Planning and Zoning Commission, the Comprehensive Plan will be distributed for the formal 60-day agency review process.
- State, regional and local agencies as well as stakeholders, landowners, and the general public have the opportunity to review and submit comments.
- Pinal County reviews all comments and makes recommendations for changes to the draft Plan prior to the commencement of the formal review process.
- Planning and Development Director and Citizens Advisory Committee review the draft Plan before submitting a recommendation to the Planning and Zoning Commission for the first public hearing.
- Commission conducts the public hearing and forwards a recommended Plan to the Board of Supervisors.
- Board of Supervisors conducts another public hearing prior to taking action on the Comprehensive Plan. The Board of Supervisors can adopt the Comprehensive Plan and subsequently amend or extend the adopted plan.

- Prior to the adoption of the Comprehensive Plan, the Board of Supervisors may change or alter any portion of the Plan, but that portion shall be re-referred to the Commission for recommendation.
- Board of Supervisors may accept or reject that recommendation.

According to A.R.S. §11-806 H the comprehensive plan or an element of the comprehensive plan or major amendment of the comprehensive plan is noticed, as required by law, and a copy submitted for review and further comment to:

- Each municipality in the County
- Each other county that is contiguous to the County
- The regional planning agency in the County
- The Department of Commerce or any other state agency that is subsequently designated as the general planning agency for this state
- The Department of Water Resources for review and comment on the water resources element, if a water resources element is required
- If the comprehensive plan or an element or amendment of the comprehensive plan is applicable to territory in the vicinity of a military airport or ancillary military facility as defined in A.R.S. §28-8461, the military airport
- If the comprehensive plan or an element or major amendment of the comprehensive plan is applicable to property in the high noise or accident potential zone of a military airport or ancillary military facility as defined in section A.R.S. §28-8461, the attorney general. *For the purposes of this paragraph, "major amendment" means a substantial alteration of the county's land use mixture or balance as established in the county's existing comprehensive plan land use element for that area of the county*

- Any person or entity that requests in writing to receive a review copy of the proposal.

After considering any recommendations from the review period, the Planning and Zoning Commission public hearing will be noticed in a publication at least once in a newspaper of general circulation in the County. The notice of time and place of a hearing and availability of studies and summaries related to the hearing shall be given at least 15 and not more than 30 calendar days before the hearing.

Monitoring the Plan

The County Planning and Development Director is responsible for monitoring the Comprehensive Plan and the consideration for County-initiated refinements. At least once per year, this review and analysis should occur. A comprehensive update should occur at a minimum every 10 years. The update process is to re-evaluate the goals, objectives, policies, and guidelines. Changes are recommended to ensure that the Plan stays up-to-date.

Plan Amendments

The annual plan amendment program provides an opportunity to address changing circumstances, oversights, inconsistencies, or land use-related inequities in the plan. Furthermore the plan amendment program allows for an opportunity to review implementation of the Growth Areas and suitability for development proposals that support multimodal transportation, rational infrastructure expansion and improvements, mixed use planning, and conservation of significant natural resources.

Anyone can request an amendment to the County's Comprehensive Plan. An amendment to the County Comprehensive Plan is necessary when a project does not conform to the Plan. Non-major

amendments can be considered at anytime of the year. Major amendments will be heard once per calendar year.

Major Amendments The Arizona state statutes define a "Major Amendment" as a "substantial alteration of the County's land use mixture or balance as established in the County's existing Comprehensive Plan Land Use element for that area of the County." However, it is left to each County to determine the criteria for determining if a proposed amendment meets this definition.

A proposed amendment will be a Major Amendment if it meets any of the following:

- ✓ Any change from one residential land use classification to another residential classification of 320 acres or more.
- ✓ Any change from a residential land use classification to a non-residential land use classification of 160 or more contiguous acres.
- ✓ Any change in employment land use classifications of 20 or more contiguous acres to another land use classification.
- ✓ Any proposed deletion of a planned freeway, high capacity roadway, enhanced parkway, parkway, or principal arterials or any proposed two-step change in the functional roadway classification (example: decision by ADOT not to build the North-South Freeway or a decision is made to change the currently portrayed corridor).
- ✓ Comprehensive Plan text changes that conflict with or alter the Plan's goals and policies.
- ✓ Requires a major amendment based on the criteria specified within the Moderate Low Residential category as set forth in Chapter 3 of this Plan.

- ✓ Fails to meet the additional criteria within the Mixed Use Activity Center category for no Comprehensive Plan amendment or for a non-major amendment as set forth in Chapter 3 of this Plan.
- ✓ Any proposed realignment of a Planned Freeway or a High Capacity Corridor
- ✓ Any proposed realignment of an Enhanced Parkway, Parkway or Principal Arterial if it meets this criterion:
  - o The realignment is greater than one half mile in total length, excluding the proposed development site, unless it meets the non-major amendment criteria.
- ✓ Any proposed realignment of a Regional Trail greater than a mile and a half in any direction or any part of a National, Historic Scenic or National Recreation Trail

Non-Major Amendments are changes to the Pinal County Comprehensive Plan that do not fall under the "Major Amendment" criteria listed above. Additionally, the following also constitute a non-major amendment.

- ✓ Any proposed one-step change in a functional roadway classification (either higher or lower).
- ✓ Land uses that meet the Vision, or the applicable private development goals, objectives, policies, and location criteria of the Plan but may not be specifically shown on the Land Use or Economic Development Plans.
- ✓ Changes mandated by any new state laws.
- ✓ Text changes and corrections that do not compromise the intent or impact the substantive mixture and balance of the Plan.
- ✓ Fails to meet the additional criteria within the Moderate Low Density Residential category for no

Comprehensive Plan amendment or for a non-major amendment as set forth in Chapter 3 of this Plan.

- ✓ Fails to meet the additional criteria within the Mixed Use Activity Center category for no Comprehensive Plan amendment as set forth in Chapter 3 of this Plan.
- ✓ Changes to the Land Use Plan of the Comprehensive Plan, for approved PADs that exist at the time of the effective date of this Comprehensive Plan, that are needed to meet the standards of the Multimodal Circulation Element or RSRSM Access Management Manual for street locations, if amendments to the Land Use Plan of the Comprehensive Plan are required.
- ✓ Any proposed realignment of an Enhanced Parkway, Parkway or Principal arterial if it meets any of these criteria:
  - 0 The realignment is less than on half mile in total length excluding the proposed development site.
  - 0 The realignment is greater than one half but less than two miles in total length, excluding the proposed development site, provided the realignment request is submitted in conjunction with a rezoning proposal for a development that:
    - Creates a minimum of 150 permanent full time jobs within the first twelve months of completion of construction
    - Produces more than $2,000,000 in gross annual payroll; and creates a multiplier effect of at least 1:1; and represents an increase in property value for construction of a new or expanded facility
    - Proposes a minimum of seven million dollars in capital investment

Multiplier Effect describes how a company that hires one person, known as the direct hire, will start a chain reaction that generates hiring, known as indirect hires, by other companies to support that one direct employee. The ratio shown is direct hires to indirect hires.

- Must average a $48,000 employee annual wage

The Pinal County Economic Development Manager, or other person authorized by the County Manager will determine which projects meet these criteria. The authorized person will forward a memorandum to the Planning and Development Director stating his findings

- ✓ Proposed realignments of roadways with a classification lower than Principal Arterial do not require Comprehensive Plan amendments
- ✓ Any proposed realignment of a Regional Trail between half a mile and less than a mile and a half in either direction.

Administrative amendments are changes to the Pinal County Comprehensive Plan that meet the criteria listed below. The following constitute an administrative amendment:

- ✓ Any proposed realignment of a Regional Trail interior to a Planned Area Development that maintains its connections along the original trail alignment when entering and exiting the development.
- ✓ Any proposed realignment of a Regional Trail due to natural feature constraints such as but not limited to a wash, fissure or reserved habitat.

Major, non-major and administrative Comprehensive Plan amendments must address the following amendment approval criteria.

1. The identified site is appropriate for the proposed use.
2. The amendment must constitute an overall improvement to the County.

3. The amendment will not adversely impact a portion of, or the entire County, by:
    a. Significantly altering existing land use patterns, especially in established neighborhoods
    b. Significantly reducing the jobs per capita balance in Pinal County
    c. Replacing employment with residential uses
    d. Placing new development away from existing or approved development if the new development overtaxes infrastructure systems and public services when considering: future contributions to infrastructure and services through construction and dedication of improvements, payments of development fees, and other mitigation measures
    e. Negatively impacting the existing character (i.e., visual, physical, environmental and functional) of the immediate area
    f. Increasing the exposure of residents to aviation-generated noise, and/or flight operations
    g. Diminishing the environmental quality of the air, water, land, or cultural resources
    h. Significantly decreasing the quantity or quality of recreational amenities such as open space, parks and trails

The burden of proving that the change constitutes an improvement to the Pinal County Comprehensive Plan and that the shared Vision and the applicable goals, objectives, policies, and planning guidelines of the Plan are still met under the proposed amendment lies with the party requesting the amendment.

Non-major amendments and rezoning cases can be reviewed together and heard sequentially at the same hearing. Major amendments and rezoning cases can be reviewed together, however, the rezoning case will not be heard by the Planning and

Zoning Commission until the referendum period for the Comprehensive Plan is completed.

Collaboration

The County will collaborate with the various municipalities and agencies to discuss the state of the region. The purpose of the event is to discuss the Plan's implementation and potential regional implications and changes. The County should communicate these implications as well as the accomplishments in achieving important aspects of the vision and policies embedded in the Plan.

Zoning and subdivision regulations should be updated to facilitate the Comprehensive Plan implementation and coordinate the compatibility of land uses with each other and with available public facilities and services. The Pinal Comprehensive Plan is neither intended to change existing zoning or subdivision regulations, nor to require approval of all development projects that conform to the Plan, in areas in which development is premature.

Rezoning and subdivisions should be compatible with the intended future land use pattern shown in the Plan and be consistent with the vision, goals, objectives, policies, and guidelines

The County Planning and Development Director should periodically review the Development Regulations and recommend amendments that implement these principles.

Appendix

Appendix A: Comprehensive Plan Compliance Checklist

Purpose:

Provide guidance to ensure conformity of development proposals with the Pinal County Comprehensive Plan.

Intent:

1. Explain how to determine if development proposals are compatible with the Comprehensive Plan.
2. Explain why unique conditions exist to deviate from the Plan.

The Pinal County Comprehensive Plan graphics, Land Use, Circulation (two graphics), and Economic Development, are not intended to be zoning maps that outlines specific locations and parcel-by-parcel determination for land uses and facilities. The Comprehensive Plan's intent is to provide policy direction and a framework for how the Pinal County "development form" or layout should occur over time. It is not the intent to predetermine specifically where land uses must occur. Guidelines within the Land Use element provide direction on development and how it relates to transportation corridors, surrounding land uses, public facilities, and natural environment.

Determination:

Comprehensive Plan Compliance is determined by the development's conformity with the Comprehensive Plan's land use designations (Land Use graphic and Land Use element text) and activity centers (Land Use and Economic Development graphics and Economic Development element text) as well as the goals, objectives, policies and guidelines outlined in the Pinal County Comprehensive Plan. Planning guidelines for each of the land use designations and Activity Centers are also included in the Land Use element. It is important to note that all components and concepts may not apply to every potential proposal.

Organization:

The Compliance Checklist focuses on two major components:

1. Consistency with Pinal County's Vision Components
2. Consistency with the Plan's Key Concepts illustrated on Land Use, Circulation, and Economic Development graphics.

How Is the Checklist Used?

Various concepts are discussed and a "YES" checkbox is provided to indicate if the proposal complies with the key concepts of the Plan.

- If a project complies, it receives a ✓ in the appropriate box.
- If it does not comply, the checkbox will remain blank, and additional information would need to be provided to explain the unique circumstance, if applicable.

- If a project has no relation to a particular check list item, a "non applicable" response is acceptable with a brief explanation.

Who Should Use the Checklist?

Developers, staff, and decision-makers should use the Comprehensive Plan Compliance Checklist.

- ✓ Developers should use this checklist as a guide to the Plan's policies in the early stages of a development proposal and when submitting an application for review.
- ✓ Staff should use it to review development proposals and to make recommendations to decision-makers. The checklist can assist in developing the staff report.
- ✓ Decision-makers can use the checklist to better understand how well a proposal does or does not comply with the Pinal County Comprehensive Plan.

PART ONE

Consistency with Pinal County's Vision Components

The Pinal County Comprehensive Plan is a vision-based plan that provides the framework that all decisions related to growth and development are measured against. The following is intended to describe how the proposal meets the various vision components.

Pinal County Vision The County recognizes the importance of the region's strategic location between the Phoenix and Tucson Metropolitan Areas and its relationship to the overall well-being of the state of Arizona. What happens in Pinal County does not stay in Pinal County; the decisions made here will impact the entire state on many levels: business development, mobility, land management, air quality, water, and overall quality of life. People choose Pinal County for the diverse opportunities it offers; this diversity is what makes Pinal County unique but also represents a challenge as Pinal County continues to grow and change.

Pinal County is a place where history, culture and heritage are the foundation for its future. Pinal County will be seen as a leader in environmental stewardship and conservation practices by ensuring that the natural environment is preserved, yet still available to be discovered. Pinal County provides quality educational and training opportunities placing residents in cutting edge, environmentally-compatible jobs within the County. While communities within Pinal County retain and celebrate their unique qualities, governments and agencies share a collaborative spirit to ensure successes across Pinal County and remain responsive and accountable to their constituents.

Sense of Community—Pinal County is a collection of unique communities, each of which has something special to offer residents and visitors. Balancing emerging urban centers and Pinal County's rural character is important to residents; ensuring that the threads of Pinal County's history, heritage, and culture are woven into its future is what makes Pinal County unique from other regions. Ensuring places exist for people to gather and for communities to showcase the diversity of places, people, lifestyles, cultures, and opportunities will help to define Pinal County's identity.

The proposal:

☐ Is consistent with the **Sense of Community** vision component

Please explain:

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_____

Mobility and Connectivity—Ensuring Pinal County has adequate transportation corridors and a variety of multimodal transportation options addressing all populations is essential for moving goods and people throughout the County and State with minimal affect on Pinal County's native wildlife. Offering multiple mobility and communication options, to effectively connect communities and activity centers throughout the County, will reduce congestion and improve air quality while enhancing the area's quality of life.

The proposal:

☐ Is consistent with the **Mobility and Connectivity** vision component

Please explain:

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_____

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_____

Economic Sustainability—Expanding opportunities for residents to live, work, learn, and play in close proximity promotes long-term economic viability. Pinal County desires activity centers that serve the current and future residents' needs offering services, businesses and employment opportunities, including high-tech and environmentally-friendly employers who champion Pinal County's conservation philosophy. The creation of the full range of quality jobs that allow residents to start their career, raise a family, and move up instead of out of Pinal County for career advancement is essential. (This may not apply to all projects)

The proposal:

☐ Is consistent with the **Economic Sustainability** vision component

Please explain:

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_____

Open Spaces and Places—Residents value the large connected open spaces and unique places of Pinal County, not only as part of their quality of life, but as an important resource to sustain the region's immense wildlife habitat and their corridors. From the majestic mountains rising from the desert floor in the west to the high desert and rugged mountain terrain to the east, enjoyment of and respect for the natural surroundings is a big part of why people choose Pinal County to live and visit.

The proposal:

☐ Is consistent with the **Open Spaces and Places** vision component

Please explain:

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_____
_____
_____

Environmental Stewardship—People value the views of the mountains and open vistas during the day and the stars at night. These values have translated to a strong conservation ethic that stresses the importance of maintaining the quality of Pinal County's natural resources for future generations. Pinal County is the leader in environmental stewardship, and rewards and encourages sustainable practices such as innovative land use planning, sustainable agriculture, water conservation, green building development, and the use of renewable and alternative energy sources.

The proposal:

☐ Is consistent with the **Environmental Stewardship** vision component

Please explain:

_____
_____
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_____

Healthy, Happy Residents—Access to quality healthcare and healthy lifestyle choices is a priority. Pinal County is a healthy, safe place where residents can walk or ride to activity centers and where interaction in Pinal County's clean, natural environment is encouraged. Ensuring residents are healthy, safe and happy in their community is a priority for Pinal County.

The proposal:

☐ Is consistent with the **Healthy, Happy Residents** vision component

Please explain:

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_____

Quality Educational Opportunities—Quality, community-based Pre k-12 programs that provide youth with a competitive edge along with a wide variety of post-secondary educational opportunities and technical or specialized workforce training are necessities. Pinal County residents seek out life-long opportunities that help to expand their minds and diversify their experiences. (This may not apply to all projects)

The proposal:

☐ Is consistent with the **Quality Educational Opportunities** vision component

Please explain:

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_____

PART TWO

Consistency with the Plan's Key Concepts illustrated on Land Use, Economic, and Circulation graphics

Consistency with the Land Use Designation shown on the graphics

The project land uses:

☐ Are shown as indicated on the Land Use and Economic Development graphic

☐ Are not shown as indicated on the Land Use and Economic Development graphic

_____
_____
_____
_____

Consistency with the Mixed Use Activity Center Concept

The project land uses:

☐ Meet the Mixed Use Activity Center requirements

☐ Are not shown within a Mixed Use Activity Center

If shown within a Mixed Use Activity Center, explain how it meets the planning guidelines outlined in the Land Use element.

_____
_____
_____
_____

The land use proposal includes a Mixed Use project, not shown in a Mixed Use Activity Center; explain how it meets the planning guidelines and intent of the Plan.

_____
_____
_____
_____

Consistency with the Planning Guidelines described in the Land Use element

The project land uses:

☐ Are consistent with the applicable Planning Guidelines described in the Land Use element

_____
_____
_____
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Quality Employment Opportunities County-wide

The Comprehensive Plan stresses the importance of increasing the number of opportunities to locate quality jobs County-wide in order to increase the jobs-to-population ratio.

The proposal:

☐ Is consistent with the Economic Development element

☐ Includes additional information about how the development addresses the Economic Development Vision embodied in the Comprehensive Plan.

Please explain:

_____
_____
_____
_____

Viable Agriculture, Equestrian and Rural Lifestyle

Historically, agriculture has played an important role in Pinal County's economy and lifestyle. Encouraging the continuation of viable agriculture and protecting it is an important component of the Plan. Additionally, supporting an equestrian and rural lifestyle has a place in Pinal County as it continues to urbanize.

The proposal:

☐ Clusters development to protect open space and agriculture

☐ Includes additional information about how the development addresses Viable Agriculture, Equestrian, and Rural Lifestyle.

Please explain:

_____

_____

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System of Connected Trails and Preservation of Open Space

Pinal County is committed to the preservation of large swaths of open space and the development of a connected system of trails. This applies to <u>all</u> projects/proposals/actions.

The proposal:

☐ Is consistent with *Pinal County Trails and Open Space Master Plan* and Comprehensive Plan Open Space and Places Chapter

☐ Includes additional information about how the development addresses the open space Vision and goals

Please explain:

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_____

_____

_____

Natural and Cultural Resource Conservation

The Comprehensive Plan strives to protect natural/cultural resources, wildlife corridors and environmentally-sensitive areas such as mountains and foothills, major washes, and vistas. These areas are predominantly undeveloped and contain sensitive resources or natural hazard areas.

The proposal:

☐ Address environmentally sensitive areas it may impact.

☐ Includes additional information about how the development addresses the natural and cultural resource conservation.

Please explain:

_____

_____

_____

_____

Water Resources, Public Facilities/Services, and Infrastructure Support

All developments must bring adequate water resources and the necessary infrastructure to support the intensity of development in order to minimize the impact on the County's ability to provide public services. All development and growth, public and private, must acknowledge its impacts and pay its own way.

The proposal:

☐ Ensures that adequate public facilities are in place or planned for within a reasonable time of the start of the new development

Please explain:

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_____

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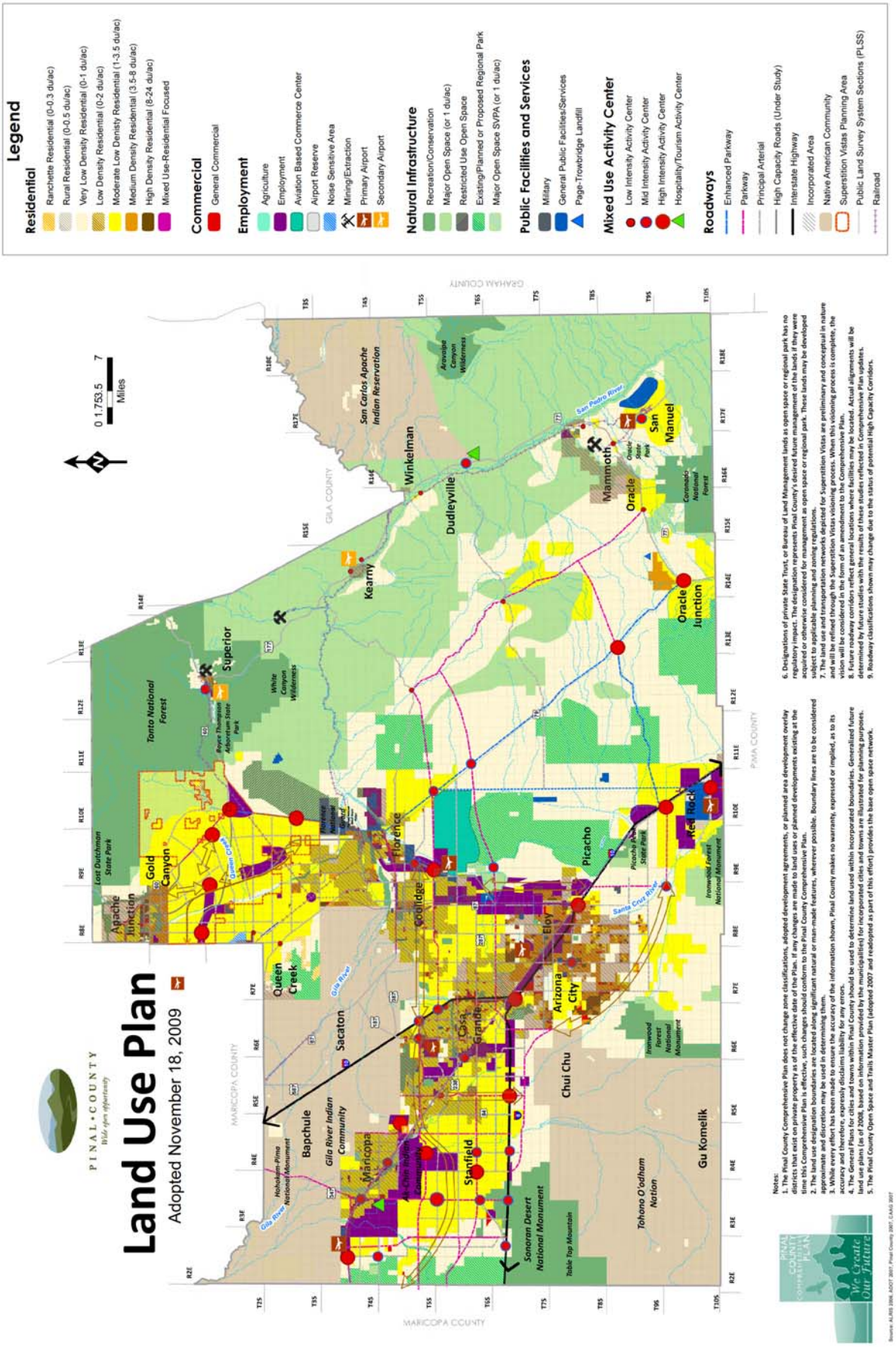
_____

Appendix B: Land Use Plan with Townships



Appendix C: Acronyms

AARP	American Association of Retired Persons
ACC	Arizona Corporation Commission
ADA	Americans with Disabilities Act
ADEQ	Arizona Department of Environmental Quality
ADOT	Arizona Department of Transportation
ADWR	Arizona Department of Water Resources
AHCCCS	Arizona Health Care Cost Containment System
AMA	Active Management Association
ASLD	Arizona State Land Department
ASM	Arizona State Museum
ASM	Alternative Safety Measure
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
BRT	Bus Rapid Transit
CAAG	Central Arizona Association of Governments
CAGRD	Central Arizona Groundwater Replenishment District
CAP	Central Arizona Project
CBRY	Copper Basin Railway
CCN	Certificates of Convenience and Necessity
CIP	Capital Improvement Projects or Program
DES	Department of Economic Security
DNL	Decibel Noise Level
du/ac	Dwelling Units Per Acre
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GIS	Geographic Information Systems
GWT	Great Western Trail
HOA	Homeowner Association
HOV	High Occupancy Vehicle
HU	Housing Units
IBC	International Building Codes
LTAF	Local Transportation Assistance Funds
MAG	Maricopa Association of Governments
MPA	Municipal Planning Area
NA	Net Acres
ND	Net Density
NPS	National Park Service
NRPA	National Recreation and Park Association
NRLU	Non-Residential Land Uses
OHV	Off Highway Vehicle
PAD	Planned Area Developments
PAG	Pima Association of Governments

R&PP	Recreation and Public Purposes Act
RSRSM	Regionally Significant Routes for Safety and Mobility
SBAH	Silver Bell Army Heliport
SHPO	State Historic Preservation Office
SPUI	Single Point Urban Interchanges
SR	State Route
SSM	Supplemental Safety Measure
TCP	Traditional Cultural Places
TDM	Transit Demand Management
TDR	Transfer of Development Rights
TSA	Total Site Acreage
U.S.	United States
UPRR	Union Pacific Railroad
USFS	United States Forest Service
USFS	United States Forest Service
VMT	Vehicle Miles Traveled

Appendix D: Glossary

The terms defined in this glossary are done so for purposes of the Pinal County Comprehensive Plan only and may not be relevant or accurate for use outside of this plan.

Acre foot (ac/ft) is equivalent to the volume of water required to cover 1 acre to a depth of 1 foot.

Agriculture includes areas where agri-business activities are permitted, including traditional farming and ranching operations.

Alluvial plain is fairly flat, gently sloping landform found at the base of mountain ranges. The geography requires careful planning so that drainage patterns are preserved.

Airport Reserve surrounds existing airports to allow for adequate buffering of surrounding land uses, buffering of surrounding land uses, expansion of airport operations and facilities and employment uses compatible with the airport.

Aviation-Based Commerce Center is a facility served by passenger service and air freight providers; it should be buffered from incompatible uses and may have surrounding employment-related uses that take advantage of aviation services and allow for expansion of airport operations and facilities.

Bajadas are shallow slopes that lie at the base of rocky hills, where materials accumulate from the weathering of the rocks. They typically have a mixture of boulders, stones, gravel, sand and silt particles, creating a deep and complex soil structure that retains water and supports a rich vegetation.

Basic activities bring new dollars into the community.

Biome is a major regional or global biotic community, such as a grassland or desert, characterized chiefly by the dominant forms of plant life and the prevailing climate.

Buildout is defined as the ultimate development of land in Pinal County with appropriate land uses based on a series of assumptions, including land ownership patterns, topographic and environmental constraints and opportunities, development potential, infrastructure support, and private property rights.

The **Certified Local Government Program** is a preservation partnership between local, state and national governments focused on promoting historic preservation at the grass roots level.

Community Commercial is intended to be mid-scale (approximately 20 to 40 acres) of retail, service, and professional office.

Compendium is a concise, yet comprehensive, compilation of a body of knowledge.

Context Sensitive is defined as an approach by which development fits its physical setting and preserves scenic, aesthetic, historic and environmental resources.

Density is the number of housing units per acre developed or allowed to develop.

Density Bonus or Incentive is allowing higher density residential as a trade-off for including in a project a desired need such as open space or affordable housing unit.

Design charrette is a workshop in which participants work together, collaborating or building off of others work, and present their findings in a public forum.

Eco-tourism is about creating and satisfying a hunger for nature, about exploiting tourism's potential for conservation and development, and about averting its negative impact on ecology, culture and aesthetics.

Employment is defined as areas that can support a variety of employment-generating business activities such as industrial, office, business park, and warehousing and distribution.

Endangered species are those in immediate danger of becoming extinct and in need of protection in order to survive.

ENERGY STAR is a joint program of the EPA and the U.S. Department of Energy helping to save Americans money and protect the environment through energy efficient products and practices.

Floor Area Ratio (FAR) is a formula for determining volume of building as a multiple of the lot area.

General Commercial provides locations for commercial development included in adopted municipal general plans. The Pinal County Comprehensive Plan does not make any changes to these locations. This category allows uses in unincorporated areas.

General Public Facilities/Services includes large public facilities that require significant space such as landfills, wastewater facilities, water campuses, and concentrations of public buildings.

Goals represent the desired outcomes or results that the County hopes to realize over time. Goals will align with Pinal County's Vision.

High Intensity Activity Centers are approximately 1,000 or more acres with a mix of professional office, business parks, and industrial often in a campus-like setting, as well as high and medium density residential.

Hohokam is a term derived from an O'odham word "Huhugam" that is often used to reference people and things that have gone before.

Horizontal Mixed Use combines residential, commercial and employment-type uses on the same site, but in separate buildings.

Indian Community indicates a sovereign nation, operating under its own tribal government laws.

Land use transition is defined as a gradual change in land use intensities to ensure compatibility.

Low Intensity Activity Centers are approximately 100 acres with a mix of professional office, commercial, tourism and hospitality uses, as well as medium to high density residential.

Major Open Space indicates lands preserved for recreational purposes or lands protected for cultural or ecological reasons.

Mid Intensity Activity Centers are approximately 500 acres with a mix of clustered professional office, commercial, tourism and hospitality uses, medical, and medium to high density residential.

Military represents the Florence Military Reservation, Silver Bell Army Heliport (SBAH) and other ancillary facilities.

Mining/Extraction identifies those areas where mineral resources have been identified or are likely to be identified in the future. The intent of this designation is to protect the mineral resources by minimizing conflicts with surrounding land uses. This designation recognizes the rights of exploration, mining, and processing of mineral resources. Copper mining is currently occurring around Superior and Kearny. All mining operations conducted by whatever techniques and technologies employed are required to comply with all applicable federal, state, and local laws providing for the protection of environmental resources.

Municipal Planning Areas (MPAs) are defined as the geographic areas around an incorporated city or town that is influenced by the city's land use pattern and may be incorporated into the jurisdiction at some point in the future.

Neighborhood Commercial is defined as less than 20 acres and is not shown on the Land Use Plan, but may be included in all land use designations if it addresses the Comprehensive Plan planning guidelines. Neighborhood commercial includes commercial goods and services and typically serves a surrounding residential population.

Noise Sensitive areas include properties that are adjacent to or within the flight path of airports, including Casa Grande, Eloy, Superior, San Manuel, and Coolidge Airports, Pinal Air Park, and Phoenix-Mesa Gateway Airport. The area is subject to high noise levels resulting from aircraft arrival and departures. The intent is to encourage land use compatibility with airport activities. The Noise Sensitive Area designation is an overlay designation with additional stipulations to the underlying designations.

Non-basic activities, in most cases, circulate existing dollars within the community.

Objectives are broad statements of intent to implement the goals and provide framework for the policies.

Policies address how the goals will be achieved. Policies should be read as if it is preceded by the words "It is the County's general policy to…" Some policies may appear to conflict with one another.

Primary Airport are those airports that have 10 or more based aircraft and have 2,000 or more annual aircraft operations. These airports offer future economic development opportunities as they grow and expand.

Private and Public Shared Responsibilities, all entities, private and public, share the responsibilities of implementing these Policies.

Public Responsibilities are primarily incumbent on the County to implement through its policy development and planning.

Recreation/Conservation identifies areas under an extra layer of federal protection, meaning that any infrastructure planned to traverse these lands will have to go through a federal permitting process and environmental review.

Regional Commercial is intended to be large-scale (over 40 acre) retail centers that draw from a large regional market area. These centers might include malls, power centers, big box retail centers, and auto dealerships.

Riparian areas are habitat zones found immediately adjacent to streams and lakes.

Scenic vista is a view of an area that is visually or aesthetically pleasing.

Secondary Airport is an airport that does not qualify as a Primary Airport. These airports offer future economic development opportunities as they grow and expand.

State Shared Revenues is a portion of revenues Arizona shares with local governments.

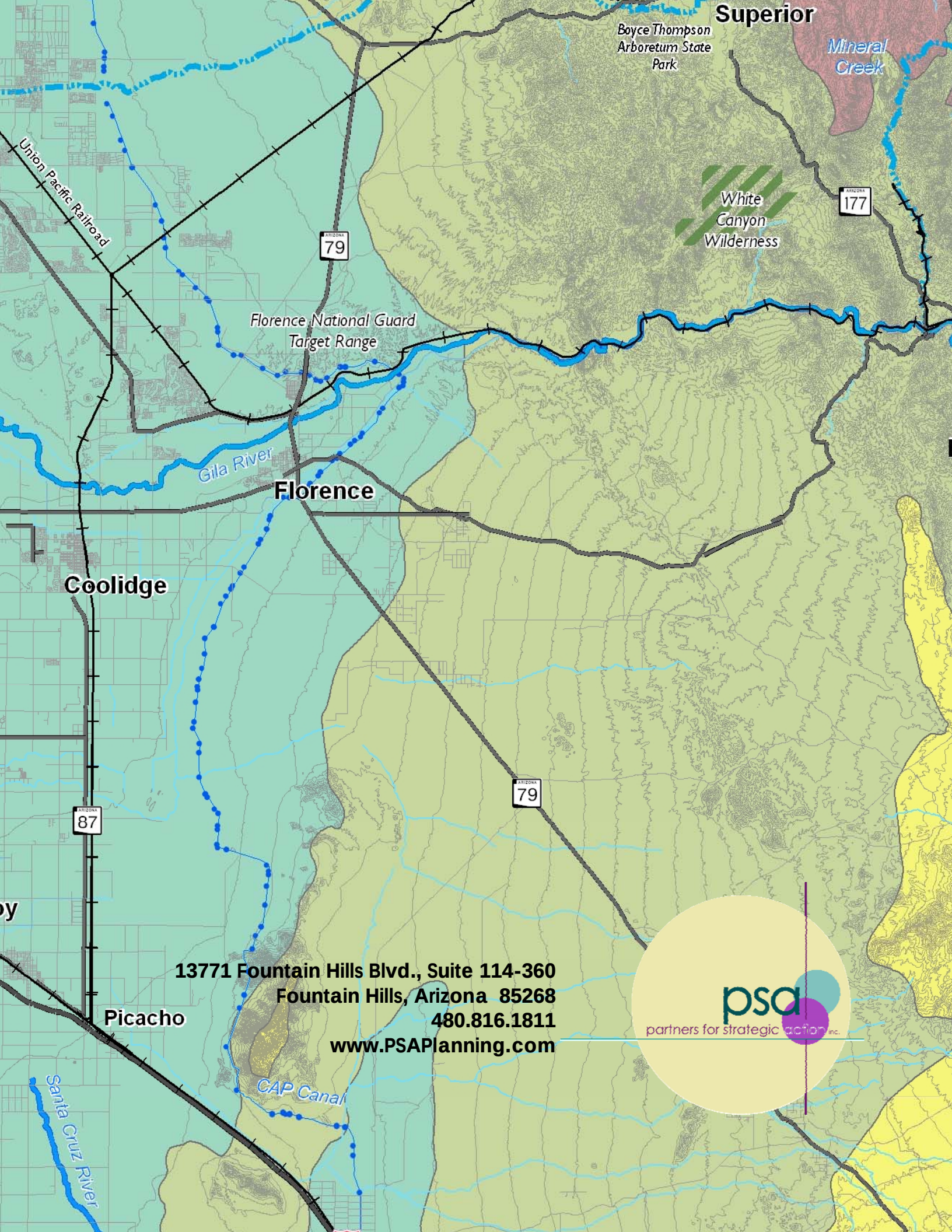
Threatened species are defined as those likely to become endangered if not protected.

Time Tax is the price paid sitting in long commutes that cuts into what we value most – our time with family, friends, home, and community.

Transit-Oriented Development is pedestrian-oriented development designed to facilitate access and use of transit facilities including buses, bus stops and light rail stations.

Vertical Mixed Use is typified by residential use over commercial uses in the same building or any other potential diversity of land uses within a building.

Viewshed is the entire area an individual can see from a given point.


Superior
Boyce Thompson Arboretum State Park
Mineral Creek
Union Pacific Railroad
White Canyon Wilderness
177
79
Florence National Guard Target Range
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